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# Use of Comparative Genomics-Based Markers for Discrimination of Host Specificity in Fusarium oxysporum

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Supplementary data S1: Multiple sequence alignments of the selected marker genes

```
Alignment: /Users/Peter/Dropbox/_UvA/Shared_Martijn_Peter/03.f.sp.markers/figures/markers_aligned_150bp/nicename/001..94_hypothetical_pr
Seaview [blocks=100 fontsize=7 A4] on Fri Mar 10 14:21:05 2017

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Focuc_037_1       CGTCCTTCCTCCTCTCACCAATAC---------TATATGAG-AC------TACTTTA-TCAAACTTCTCCTCCGTATT----TACAAC-TATATAAATCT
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Marker #94

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fp7304 fwd >
cucurbit-infecting strains

Marker #94

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Foluf_001_3     AACATGAGATGCCTTACTGTCC----TCGCCTTTGTCTTTACT----GGCCTGGCGCTAG------------------CTACCAAGCCTCACCCACCTGG
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Fomln_016_2     AACATGAGATGCCTTACTGTCC----TCGCCTTTGTCTTTACT----GGCCTGGCGCTAG------------------CTACCAAGCCTCACCCACCTGG
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Forcu_024_2     AACATGAGATGCCTTACTGTCC----TCGCCTTTGTCTTTACT----GGCCTGGCGCTAG------------------CTACCAAGCCTCACCCACCTGG
Forcu_031_1     AACATGAGATGCCTTACTGTCC----TCGCCTTTGTCTTTACT----GGCCTGGCGCTAG------------------CTACCAAGCCTCACCCACCTGG
Foluf_001_2     AGCATGAGATTCCTTACTGTCC----TCGCCTTTGTCTCTACC----GGTCTGGCGCTAG------------------CCACCAAGCCAATCCCACGCAA
Foluf_002_2     AGCATGAGATTCCTTACTGTCC----TCGCCTTTGTCTCTACC----GGTCTGGCGCTAG------------------CCACCAAGCCAATCCCACGCAA
Foluf_001_1     AACATGAGGTTCCTCACTCTCC----TCGCTTTTGTTTCTGCC----GCTCTGGCGCTAA------------------CCACTAATCCAATCCAACATAA
Foluf_002_1     AACATGAGGTTCCTCACTCTCC----TCGCTTTTGTTTCTGCC----GCTCTGGCGCTAA------------------CCACTAATCCAATCCAACATAA
Fomln_009       AACAT-AAAGGCTCCGCTATTTAGAATTCCTTCTATTGCTATTTTAAACTTTAAAAC---------------------CCCTTAATTAGCGTTTCCTTTG
Fomln_011       AACAT-AAAGGCTCCGCTATTTAGAATTCCTTCTATTGCTATTTTAAACTTTAAAAC---------------------CCCTTAATTAGCGTTTCCTTTG
Fopis_HDV247_0  ATTAGTAGGGTC--------------TCAGGCAGGTC----------AGCTAAGTGCCGG------------------CCGGGAATTCACTCGGCTTTCA
Fopis_HDV247_1  ATTAGTAGGGTC--------------TCAGGCAGGTC----------AGCTAAGTGCCGG------------------CCGGGAATTCACTCGGCTTTCA
Fopis_HDV247_2  ATTAGTAGGGTC--------------TCAGGCAGGTC----------AGCTAAGTGCCGG------------------CCGGGAATTCACTCGGCTTTCA
Fotul_Tu67_0    ----------------------------------------C----GCTGTGAC----------------------ACACCAAGCCAATCCAACTTGG
Forap_PHW815    AATATGAGATTCCTCACTCTCC----TCGCTTTTGTCTCTATC----GCTCTGGCGCTAGCCACCAAGCCAATCCAACCCACCAAGCCAATCCAACTTGG
Forcu_016_1     ----------------------------------------NN----NNNNNNGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Fomln_016_1     AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTAGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Fomln_006_1     AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTAGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Fomln_001_1     AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTAGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Fomln_004_1     AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTAGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Fomln_005_1     AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTAGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Fomln_013_1     AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTAGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Forcu_024_1     AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTAGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Foniv_005       AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Foniv_010       AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Foniv_020       AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Foluf_002_0     AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Fomom_001       AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Foluf_001_0     AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Fomom_004       AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Folag_002_1     AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Foniv_015       AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Foniv_021       AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Foniv_037       AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Focuc_011       AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Focuc_035       AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Focuc_037_0     AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Focuc_001       AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Focuc_013       AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Focuc_015       AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Folag_001       AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Folag_005_1     AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Foniv_002       AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Foniv_013       AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Foniv_019       AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Focuc_018       AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Focuc_021       AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Focuc_030       AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Folag_002_0     AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Folag_004       AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Folag_005_0     AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Forcu_031_0     AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Forcu_024_0     AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Forcu_016_0     AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Fomln_016_0     AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Fomln_005_0     AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Fomln_001_0     AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Fomln_004_0     AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Fomln_006_0     AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Fomln_012_0     AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
Fomln_013_0     AACATGAAATTCCTCACTCTCC----TCGCTTCTGTCTCTATC----GCTCTGGCGCTGG------------------CCACCAAGCCAGTCCAACTTGG
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fp7304 fwd >
cucurbit-infecting strains

Marker #94

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                301
Fotul_Tu67_1    CACTGAGCAAGGCGTT-------ACTGACTCTTCGCTGGAGCAAATTGCACGGCATGACGTTGAGAATATAGACTCTGAGTCCGTCCAGTATGTTACAAC
Folag_002_2     CACTGAGCAAGGCGCT-------ACTGACTCTTCGCTGGAGCATATTGCACGCCATGACGTTGAAAATGTAGACTCTGACTCCGTCAAGTATGTTACAAC
Focuc_037_1     CACTGAGCAAGGCGCT-------ACTGACTCTTCGCTGGAGCATATTGCACGCCATGACGTTGAGAATGTAGACTCTGACTCCGTCAAGTATGTTACAAC
Fomln_012_1     CACTGAGCAAGGCGCT-------ACTGACTCTTCGCTGGAGCATATTGCACGCCATGACGTTGAGAATGTAGACTCTGACTCCGTCAAGTATGTTACAAC
Foluf_001_3     CACTGAGCAAGGCGCT-------ACTGACTCTTCGCTGGAGCATATTGCACGCCATGACGTTGAGAATGTAGACTCTGACTCCGTCAAGTATGTTACAAC
Fomln_013_2     CACTGAGCAAGGCGCT-------ACTGACTCTTCGCTGGAGCATATTGCACGCCATGACGTTGAGAATGTAGACTCTGACTCCGTCAAGTATGTTACAAC
Fomln_001_2     CACTGAGCAAGGCGCT-------ACTGACTCTTCGCTGGAGCATATTGCACGCCATGACGTTGAGAATGTAGACTCTGACTCCGTCAAGTATGTTACAAC
Fomln_004_2     CACTGAGCAAGGCGCT-------ACTGACTCTTCGCTGGAGCATATTGCACGCCATGACGTTGAGAATGTAGACTCTGACTCCGTCAAGTATGTTACAAC
Fomln_005_2     CACTGAGCAAGGCGCT-------ACTGACTCTTCGCTGGAGCATATTGCACGCCATGACGTTGAGAATGTAGACTCTGACTCCGTCAAGTATGTTACAAC
Fomln_006_2     CACTGAGCAAGGCGCT-------ACTGACTCTTCGCTGGAGCATATTGCACGCCATGACGTTGAGAATGTAGACTCTGACTCCGTCAAGTATGTTACAAC
Fomln_016_2     CACTGAGCAAGGCGCT-------ACTGACTCTTCGCTGGAGCATATTGCACGCCATGACGTTGAGAATGTAGACTCTGACTCCGTCAAGTATGTTACAAC
Forcu_016_2     CACTGAGCAAGGCGCT-------ACTGACTCTTCGCTGGAGCATATTGCACGCCATGACGTTGAGAATGTAGACTCTGACTCCGTCAAGTATGTTACAAC
Forcu_024_2     CACTGAGCAAGGCGCT-------ACTGACTCTTCGCTGGAGCATATTGCACGCCATGACGTTGAGAATGTAGACTCTGACTCCGTCAAGTATGTTACAAC
Forcu_031_1     CACTGAGCAAGGCGCT-------ACTGACTCTTCGCTGGAGCATATTGCACGCCATGACGTTGAGAATGTAGACTCTGACTCCGTCAAGTATGTTACAAC
Foluf_001_2     CACTGAGCAGGGCACC-------ACTGACTCTTCGCTGGAGCATGTTCCACGCAATAGCGTTGATAATGTAAACGCTAAGTCCATCAAGTATGTTACAGC
Foluf_002_2     CACTGAGCAGGGCACC-------ACTGACTCTTCGCTGGAGCATGTTCCACGCAATAGCGTTGATAATGTAAACGCTAAGTCCATCAAGTATGTTACAGC
Foluf_001_1     TGCTGAGGGAGACACT-------ATTGATCCCTCGTTGGAGCTCATTCCGCAGGATAACATTGAGAATACAGGCTTTGGGTCCGTCAACTATGTCACAGC
Foluf_002_1     TGCTGAGGGAGACACT-------ATTGATCCCTCGTTGGAGCTCATTCCGCAGGATAACATTGAGAATACAGGCTTTGGGTCCGTCAACTATGTCACAGC
Fomln_009       CATC--------CTTT-------CTTTCTCCTCCAGTAAA--------CACCACATTG-ATTGTGAATACAGACCCTGGGTCCGTCAAGTATGTCACTAC
Fomln_011       CATC--------CTTT-------CTTTCTCCTCCAGTAAA--------CACCACATTG-ATTGTGAATACAGACCCTGGGTCCGTCAAGTATGTCACTAC
Fopis_HDV247_0  CTAAAAGTAAGGCCCCTAAAGGGACGCACCTTTTGCTTTCTGTCTTCTAATGATACTGTATTGTGAATACTGACCCTGGGTCCGTCAATTATGTCACAAC
Fopis_HDV247_1  CTAAAAGTAAGGCCCCTAAAGGGACGCACCTTTTGCT-----TTCTGTCTTCTAATGATATTGTGAATCCTGACCCTGGGTCCGTCAATTATGTCACAAC
Fopis_HDV247_2  CTAAAAGTAAGGCCCCTAAAGGGACGCACCTTTTGCT-----TTCTGTCTTCTAATGATATTGTGAATACTGACCCTGGGTCCGTCAATTATGTCACCAC
Fotul_Tu67_0    TACTGAGCAAGACGCT-------ATTGATCCTTCGCTGGAGCTTATTCCACGCAATGCCATTGAGAATACAGGCCCTGGGTCCGTCAAGTATGTCACAAC
Forap_PHW815    CACTGAGCAAGACGCC-------ATTGATCCTTCGCTGGAGCCTATCCCACGCGATGGCATTGAGAATAAAGACCCTCGGTCTGTCAAGTATGTCACAAC
Forcu_016_1     TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTTACAAC
Fomln_016_1     TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTCACAAC
Fomln_006_1     TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTCACAAC
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Fomln_005_1     TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTCACAAC
Fomln_013_1     TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTCACAAC
Forcu_024_1     TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTCACAAC
Foniv_005       TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTTACAAC
Foniv_010       TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTTACAAC
Foniv_020       TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTTACAAC
Foluf_002_0     TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTTACAAC
Fomom_001       TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTTACAAC
Foluf_001_0     TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTTACAAC
Fomom_004       TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTTACAAC
Folag_002_1     TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTTACAAC
Foniv_015       TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTTACAAC
Foniv_021       TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTTACAAC
Foniv_037       TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTTACAAC
Focuc_011       TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTTACAAC
Focuc_035       TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTTACAAC
Focuc_037_0     TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTTACAAC
Focuc_001       TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTTACAAC
Focuc_013       TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTTACAAC
Focuc_015       TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTTACAAC
Folag_001       TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTTACAAC
Folag_005_1     TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTTACAAC
Foniv_002       TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTTACAAC
Foniv_013       TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTTACAAC
Foniv_019       TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTTACAAC
Focuc_018       TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTTACAAC
Focuc_021       TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTTACAAC
Focuc_030       TACTGGGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACGCAATGGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTTACAAC
Folag_002_0     TACTGAGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACTCAATAGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTCACAAC
Folag_004       TACTGAGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACTCAATAGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTCACAAC
Folag_005_0     TACTGAGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACTCAATAGTATTGAGAATACAGACCCTGGGTCCGTCAAGTATGTCACAAC
Forcu_031_0     TACTGAGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACACAATGGTATTGAGAATACAGACCCTGGGTCCCTCAAGTATGTTACAAC
Forcu_024_0     TACTGAGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACACAATGGTATTGAGAATACAGACCCTGGGTCCCTCAAGTATGTTACAAC
Forcu_016_0     TACTGAGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACACAATGGTATTGAGAATACAGACCCTGGGTCCCTCAAGTATGTTACAAC
Fomln_016_0     TACTGAGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACACAATGGTATTGAGAATACAGACCCTGGGTCCCTCAAGTATGTTACAAC
Fomln_005_0     TACTGAGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACACAATGGTATTGAGAATACAGACCCTGGGTCCCTCAAGTATGTTACAAC
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Fomln_006_0     TACTGAGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACACAATGGTATTGAGAATACAGACCCTGGGTCCCTCAAGTATGTTACAAC
Fomln_012_0     TACTGAGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACACAATGGTATTGAGAATACAGACCCTGGGTCCCTCAAGTATGTTACAAC
Fomln_013_0     TACTGAGCAAGACACT-------ATTGATCCTTCGCTGGAGCCTATTCCACACAATGGTATTGAGAATACAGACCCTGGGTCCCTCAAGTATGTTACAAC
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Marker #94

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                401
Fotul_Tu67_1    CTTCTCCCCCCCATTGACCTATCTTGACATGTCCCAGAGTTGTTAGATCGGACGACCAGGCACCATATGGAGGCCTTGAAAAGCGTATAGATGGCATACC
Folag_002_2     CTTCCC--CCCAATTGACCTATCTTAACATGTCTCAGAGTTATTAGATCGGACGACCAGGCACCATATGGAGGTCTTGAAAAGCGTCTAGATGGCATACC
Focuc_037_1     CTCCC---CCCCATTGACCTATCTTAACATGTCTCAGAGTTATTAGATCGGACGACCAGGCACCATATGGAGGCCTTGAAAAGCGTATAGATGGCATACC
Fomln_012_1     CTCCC---CCCCATTGACCTATCTTAACATGTCTCAGAGTTATTAGATCGGACGACCAGGCACCATATGGAGGCCTTGAAAAGCGTATAGATGGCATACC
Foluf_001_3     CTCCC---CCCCATTGACCTATCTTAACATGTCTCAGAGTTATTAGATCGGACGACCAGGCACCATATGGAGGCCTTGAAAAGCGTATAGATGGCATACC
Fomln_013_2     CTCCC---CCCCATTGACCTATCTTAACATGTCTCAGAGTTATTAGATCGGACGACCAGGCACCATATGGAGGCCTTGAAAAGCGTATAGATGGCATACC
Fomln_001_2     CTCCC---CCCCATTGACCTATCTTAACATGTCTCAGAGTTATTAGATCGGACGACCAGGCACCATATGGAGGCCTTGAAAAGCGTATAGATGGCATACC
Fomln_004_2     CTCCC---CCCCATTGACCTATCTTAACATGTCTCAGAGTTATTAGATCGGACGACCAGGCACCATATGGAGGCCTTGAAAAGCGTATAGATGGCATACC
Fomln_005_2     CTCCC---CCCCATTGACCTATCTTAACATGTCTCAGAGTTATTAGATCGGACGACCAGGCACCATATGGAGGCCTTGAAAAGCGTATAGATGGCATACC
Fomln_006_2     CTCCC---CCCCATTGACCTATCTTAACATGTCTCAGAGTTATTAGATCGGACGACCAGGCACCATATGGAGGCCTTGAAAAGCGTATAGATGGCATACC
Fomln_016_2     CTCCC---CCCCATTGACCTATCTTAACATGTCTCAGAGTTATTAGATCGGACGACCAGGCACCATATGGAGGCCTTGAAAAGCGTATAGATGGCATACC
Forcu_016_2     CTCCC---CCCCATTGACCTATCTTAACATGTCTCAGAGTTATTAGATCGGACGACCAGGCACCATATGGAGGCCTTGAAAAGCGTATAGATGGCATACC
Forcu_024_2     CTCCC---CCCCATTGACCTATCTTAACATGTCTCAGAGTTATTAGATCGGACGACCAGGCACCATATGGAGGCCTTGAAAAGCGTATAGATGGCATACC
Forcu_031_1     CTCCC---CCCCATTGACCTATCTTAACATGTCTCAGAGTTATTAGATCGGACGACCAGGCACCATATGGAGGCCTTGAAAAGCGTATAGATGGCATACC
Foluf_001_2     TTTCTCTCCCAT-TTGATCCATCTTAACACGTTCCAGAGCTGTCAGGTTAGACGTTCAGGCATCGGATGGAGACCTTGAAAAGCGCCTTAACGGCATTGA
Foluf_002_2     TTTCTCTCCCAT-TTGATCCATCTTAACACGTTCCAGAGCTGTCAGGTTAGACGTTCAGGCATCGGATGGAGACCTTGAAAAGCGCCTTAACGGCATTGA
Foluf_001_1     CGTATTTACCCT-TTCATTGGTC-TAACATGTCCCAGAGTGGCTACAACAGACCTCCAGACACCAGATGGAGACCTTGAAAAGCGTGATGATGGTATTCC
Foluf_002_1     CGTATTTACCCT-TTCATTGGTC-TAACATGTCCCAGAGTGGCTACAACAGACCTCCAGACACCAGATGGAGACCTTGAAAAGCGTGATGATGGTATTCC
Fomln_009       TTTCTCTCCCAC-TTTATCCATC-TAACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCAAATGGAGGCCTTGAAAAGCGTCTTGATGGCATTCC
Fomln_011       TTTCTCTCCCAC-TTTATCCATC-TAACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCAAATGGAGGCCTTGAAAAGCGTCTTGATGGCATTCC
Fopis_HDV247_0  TTTCTTTCCCCT-TTTATCCGTC-TAACATGTCCCAGAATTGTCAGATCAGACGTCAAGGCACCGGATGGAGGCCTTGAAAAGCGTCTTGATGGCATTCA
Fopis_HDV247_1  TTTCTTTCCCCT-TTTATCCGTC-TAACATGTCCCAGAATTGTCAGATCAGACGTCAAGGCACCGGATGGAGGCCTTGAAAAGCGTCTTGATGGCATTCA
Fopis_HDV247_2  TTTCTTTCCCCT-TTTATCCGTC-TAACATGTCCCAGAGTTGTCAGATCAGACGTCAAGGCACCGGATGAAGGCCTTGAAAAGCGTCTTGATGGCATTCA
Fotul_Tu67_0    TTTCTCTCCCCC-TTTATCCATC-TAACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTCTCGATGGCATTCC
Forap_PHW815    TTTCTCTCCCCC-GTTATCCATC-TAACACGTCCCAGAGTTGTCAGATCAGACGTCAAGGCACCGGATGGAGGCCTTGTCAAGCGTCTTGATGGTATTGC
Forcu_016_1     TTTCTGTATCCC-TTGATGTATC-TGACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTGTTGATGGCATTCC
Fomln_016_1     TTTCTGTATCCC-TTTATGTATC-TAACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCAACAAACGGAGGTCTCCAAAAGCGTCTTGATGGTATTCC
Fomln_006_1     TTTCTGTATCCC-TTTATGTATC-TAACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCAACAAACGGAGGTCTCCAAAAGCGTCTTGATGGTATTCC
Fomln_001_1     TTTCTGTATCCC-TTTATGTATC-TAACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCAACAAACGGAGGTCTCCAAAAGCGTCTTGATGGTATTCC
Fomln_004_1     TTTCTGTATCCC-TTTATGTATC-TAACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCAACAAACGGAGGTCTCCAAAAGCGTCTTGATGGTATTCC
Fomln_005_1     TTTCTGTATCCC-TTTATGTATC-TAACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCAACAAACGGAGGTCTCCAAAAGCGTCTTGATGGTATTCC
Fomln_013_1     TTTCTGTATCCC-TTTATGTATC-TAACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCAACAAACGGAGGTCTCCAAAAGCGTCTTGATGGTATTCC
Forcu_024_1     TTTCTGTATCCC-TTTATGTATC-TAACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCAACAAACGGAGGTCTCCAAAAGCGTCTTGATGGTATTCC
Foniv_005       TTTCTGTATCCC-TTGATGTATC-TGACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTGTTGATGGCATTCC
Foniv_010       TTTCTGTATCCC-TTGATGTATC-TGACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTGTTGATGGCATTCC
Foniv_020       TTTCTGTATCCC-TTGATGTATC-TGACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTGTTGATGGCATTCC
Foluf_002_0     TTTCTGTATCCC-TTGATGTATC-TGACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTGTTGATGGCATTCC
Fomom_001       TTTCTGTATCCC-TTGATGTATC-TGACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTGTTGATGGCATTCC
Foluf_001_0     TTTCTGTATCCC-TTGATGTATC-TGACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTGTTGATGGCATTCC
Fomom_004       TTTCTGTATCCC-TTGATGTATC-TGACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTGTTGATGGCATTCC
Folag_002_1     TTTCTGTATCCC-TTGATGTATC-TGACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTGTTGATGGCATTCC
Foniv_015       TTTCTGTATCCC-TTGATGTATC-TGACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTGTTGATGGCATTCC
Foniv_021       TTTCTGTATCCC-TTGATGTATC-TGACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTGTTGATGGCATTCC
Foniv_037       TTTCTGTATCCC-TTGATGTATC-TGACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTGTTGATGGCATTCC
Focuc_011       TTTCTGTATCCC-TTGATGTATC-TGACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTGTTGATGGCATTCC
Focuc_035       TTTCTGTATCCC-TTGATGTATC-TGACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTGTTGATGGCATTCC
Focuc_037_0     TTTCTGTATCCC-TTGATGTATC-TGACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTGTTGATGGCATTCC
Focuc_001       TTTCTGTATCCC-TTGATGTATC-TGACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTGTTGATGGCATTCC
Focuc_013       TTTCTGTATCCC-TTGATGTATC-TGACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTGTTGATGGCATTCC
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Folag_001       TTTCTGTATCCC-TTGATGTATC-TGACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTGTTGATGGCATTCC
Folag_005_1     TTTCTGTATCCC-TTGATGTATC-TGACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTGTTGATGGCATTCC
Foniv_002       TTTCTGTATCCC-TTGATGTATC-TGACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTGTTGATGGCATTCC
Foniv_013       TTTCTGTATCCC-TTGATGTATC-TGACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTGTTGATGGCATTCC
Foniv_019       TTTCTGTATCCC-TTGATGTATC-TGACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTGTTGATGGCATTCC
Focuc_018       TTTCTGTATCCC-TTGATGTATC-TGACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTGTTGATGGCATTCC
Focuc_021       TTTCTGTATCCC-TTGATGTATC-TGACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTGTTGATGGCATTCC
Focuc_030       TTTCTGTATCCC-TTGATGTATC-TGACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTGTTGATGGCATTCC
Folag_002_0     TTTCTGTATCCC-TTTATCCATC-TAACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTGTTGATGGCATTCC
Folag_004       TTTCTGTATCCC-TTTATCCATC-TAACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTGTTGATGGCATTCC
Folag_005_0     TTTCTGTATCCC-TTTATCCATC-TAACATGTCCCAGAGTTGTCAGATCAGACGTCCAGGCACCGGATGGAGGCCTTGAAAAGCGTGTTGATGGCATTCC
Forcu_031_0     TTTCTGTATCCC-TTTATGTATC-TAACATGTCCCAGAGTTGTCGGATCAGACGTCCAGGCACCAAACGGAGGTCTCCAAAAGCGTCTTGATGGTATTCC
Forcu_024_0     TTTCTGTATCCC-TTTATGTATC-TAACATGTCCCAGAGTTGTCGGATCAGACGTCCAGGCACCAAACGGAGGTCTCCAAAAGCGTCTTGATGGTATTCC
Forcu_016_0     TTTCTGTATCCC-TTTATGTATC-TAACATGTCCCAGAGTTGTCGGATCAGACGTCCAGGCACCAAACGGAGGTCTCCAAAAGCGTCTTGATGGTATTCC
Fomln_016_0     TTTCTGTATCCC-TTTATGTATC-TAACATGTCCCAGAGTTGTCGGATCAGACGTCCAGGCACCAAACGGAGGTCTCCAAAAGCGTCTTGATGGTATTCC
Fomln_005_0     TTTCTGTATCCC-TTTATGTATC-TAACATGTCCCAGAGTTGTCGGATCAGACGTCCAGGCACCAAACGGAGGTCTCCAAAAGCGTCTTGATGGTATTCC
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Fomln_004_0     TTTCTGTATCCC-TTTATGTATC-TAACATGTCCCAGAGTTGTCGGATCAGACGTCCAGGCACCAAACGGAGGTCTCCAAAAGCGTCTTGATGGTATTCC
Fomln_006_0     TTTCTGTATCCC-TTTATGTATC-TAACATGTCCCAGAGTTGTCGGATCAGACGTCCAGGCACCAAACGGAGGTCTCCAAAAGCGTCTTGATGGTATTCC
Fomln_012_0     TTTCTGTATCCC-TTTATGTATC-TAACATGTCCCAGAGTTGTCGGATCAGACGTCCAGGCACCAAACGGAGGTCTCCAAAAGCGTCTTGATGGTATTCC
Fomln_013_0     TTTCTGTATCCC-TTTATGTATC-TAACATGTCCCAGAGTTGTCGGATCAGACGTCCAGGCACCAAACGGAGGTCTCCAAAAGCGTCTTGATGGTATTCC
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Marker #94

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Folag_002_2     AATTCC---TACCGGACCCAACCCCGAGCAGTTAACTATGGCAGGAGTCCTCGTGTCATTCACCATGGTCGGACAGCGGATTC-GGAAAGAAGGAAGCAG
Focuc_037_1     GATTCC---TACCGGACCCAACCCCGAGCAGTTAACTATGGCAGGAGTCCTCGTGTCATTCACCATGGTCGGACAGTGGATAC-GGAAAGAAGGAGGGAG
Fomln_012_1     GATTCC---TACCGGACCCAACCCCGAGCAGTTAACTATGGCAGGAGTCCTCGTGTCATTCACCATGGTCGGACAGTGGATAC-GGAAAGAAGGAGGGAG
Foluf_001_3     GATTCC---TACCGGACCCAACCCCGAGCAGTTAACTATGGCAGGAGTCCTCGTGTCATTCACCATGGTCGGACAGTGGATAC-GGAAAGAAGGAGGGAG
Fomln_013_2     GATTCC---TACCGGACCCAACCCCGAGCAGTTAACTATGGCAGGAGTCCTCGTGTCATTCACCATGGTCGGACAGTGGATAC-GGAAAGAAGGAGGGAG
Fomln_001_2     GATTCC---TACCGGACCCAACCCCGAGCAGTTAACTATGGCAGGAGTCCTCGTGTCATTCACCATGGTCGGACAGTGGATAC-GGAAAGAAGGAGGGAG
Fomln_004_2     GATTCC---TACCGGACCCAACCCCGAGCAGTTAACTATGGCAGGAGTCCTCGTGTCATTCACCATGGTCGGACAGTGGATAC-GGAAAGAAGGAGGGAG
Fomln_005_2     GATTCC---TACCGGACCCAACCCCGAGCAGTTAACTATGGCAGGAGTCCTCGTGTCATTCACCATGGTCGGACAGTGGATAC-GGAAAGAAGGAGGGAG
Fomln_006_2     GATTCC---TACCGGACCCAACCCCGAGCAGTTAACTATGGCAGGAGTCCTCGTGTCATTCACCATGGTCGGACAGTGGATAC-GGAAAGAAGGAGGGAG
Fomln_016_2     GATTCC---TACCGGACCCAACCCCGAGCAGTTAACTATGGCAGGAGTCCTCGTGTCATTCACCATGGTCGGACAGTGGATAC-GGAAAGAAGGAGGGAG
Forcu_016_2     GATTCC---TACCGGACCCAACCCCGAGCAGTTAACTATGGCAGGAGTCCTCGTGTCATTCACCATGGTCGGACAGTGGATAC-GGAAAGAAGGAGGGAG
Forcu_024_2     GATTCC---TACCGGACCCAACCCCGAGCAGTTAACTATGGCAGGAGTCCTCGTGTCATTCACCATGGTCGGACAGTGGATAC-GGAAAGAAGGAGGGAG
Forcu_031_1     GATTCC---TACCGGACCCAACCCCGAGCAGTTAACTATGGCAGGAGTCCTCGTGTCATTCACCATGGTCGGACAGTGGATAC-GGAAAGAAGGAGGGAG
Foluf_001_2     AGTTCCGTACAACAATCCCAACCCCAAAGATATTCTTCTGGCAGGAGTCGTCGTGTCATTTACCATGGTCGGACAATGGATTA-GGCAGGGAGGAGGCAG
Foluf_002_2     AGTTCCGTACAACAATCCCAACCCCAAAGATATTCTTCTGGCAGGAGTCGTCGTGTCATTTACCATGGTCGGACAATGGATTA-GGCAGGGAGGAGGCAG
Foluf_001_1     GGTTCCCTACAACGTTCCCGGCCCGACAAACATAGTTATAGCTGGAGTCACTGTGACATTTATCATGGGCGGCAAATGGATAA-GGGAAGGAACGAAAAA
Foluf_002_1     GGTTCCCTACAACGTTCCCGGCCCGACAAACATAGTTATAGCTGGAGTCACTGTGACATTTATCATGGGCGGCAAATGGATAA-GGGAAGGAACGAAAAA
Fomln_009       GGTCCCCTACAGC--------------------TAGTTTTAGCAAGAGTCACTGTGACATTTATCATGGCCGGAAAGTGGGTAA-GGGAAGGAACGAACAA
Fomln_011       GGTCCCCTACAGC--------------------TAGTTTTAGCAAGAGTCACTGTGACATTTATCATGGCCGGAAAGTGGGTAA-GGGAAGGAACGAACAA
Fopis_HDV247_0  TGTTCCCTACAATGTTGCCGAGCTCCGACAGCTAGTTTTATCAGGTGTCACTGTGACATTTATCATGGCCGGAAAGTGGGTAA-GGGAAGGAACGAACAG
Fopis_HDV247_1  TGTTCCCTACAATGTTGCCGAGCTCCGACAGCTAGTTTTATCAGGTGTCACTGTGACATTTATCATGGCCGGAAAGTGGGTAA-GGGAAGGAACGAACAG
Fopis_HDV247_2  TGTTCCCTACAATGTTGCCGAGCTCCGACAGCTAGTTTTATCAGGTGTCACTGTGACATTTAT-ATGGCCGGAAAGTGGGTAA-GGGAAGGAACGAACAG
Fotul_Tu67_0    GGTTCCCTACAACGTTGCCAACCCCACACAGCTAGTTTTAGCAGGGGTCGTCGTGTCATTCAACATGGTCTTAAAGCAGGTAA-GGGAAGGAACGAACAA
Forap_PHW815    GGTTCCCTACAACGTTGCCGACCCCCAACAGCTACTTTTAGCAGGAGTCACTGTGACATTTATCATGGTTGGAAAGTGGGTAA-AGGAAGGAGGACACAA
Forcu_016_1     GGTCCCCTACAACGTTGCTGACCCGCAACAGATACTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Fomln_016_1     TGTTCCCTACAACGTTCCCGGCCCCCAAGAGATGCTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Fomln_006_1     TGTTCCCTACAACGTTCCCGGCCCCCAAGAGATGCTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Fomln_001_1     TGTTCCCTACAACGTTCCCGGCCCCCAAGAGATGCTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGA--------
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Fomln_005_1     TGTTCCCTACAACGTTCCCGGCCCCCAAGAGATGCTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Fomln_013_1     TGTTCCCTACAACGTTCCCGGCCCCCAAGAGATGCTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Forcu_024_1     TGTTCCCTACAACGTTCCCGGCCCCCAAGAGATGCTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Foniv_005       GGTCCCCTACAACGTTGCTGACCCGCAACAGATACTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Foniv_010       GGTCCCCTACAACGTTGCTGACCCGCAACAGATACTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAANNGGAAGGAGGACACAG
Foniv_020       GGTCCCCTACAACGTTGCTGACCCGCAACAGATACTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-TGGAAGGAGGACACAG
Foluf_002_0     GGTCCCCTACAACGTTGCTGACCCGCAACAGATACTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Fomom_001       GGTCCCCTACAACGTTGCTGACCCGCAACAGATACTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Foluf_001_0     GGTCCCCTACAACGTTGCTGACCCGCAACAGATACTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Fomom_004       GGTCCCCTACAACGTTGCTGACCCGCAACAGATACTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Folag_002_1     GGTCCCCTACAACGTTGCTGACCCGCAACAGATACTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Foniv_015       GGTCCCCTACAACGTTGCTGACCCGCAACAGATACTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Foniv_021       GGTCCCCTACAACGTTGCTGACCCGCAACAGATACTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Foniv_037       GGTCCCCTACAACGTTGCTGACCCGCAACAGATACTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Focuc_011       GGTCCCCTACAACGTTGCTGACCCGCAACAGATACTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Focuc_035       GGTCCCCTACAACGTTGCTGACCCGCAACAGATACTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Focuc_037_0     GGTCCCCTACAACGTTGCTGACCCGCAACAGATACTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Focuc_001       GGTCCCCTACAACGTTGCTGACCCGCAACAGATACTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Focuc_013       GGTCCCCTACAACGTTGCTGACCCGCAACAGATACTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Focuc_015       GGTCCCCTACAACGTTGCTGACCCGCAACAGATACTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Folag_001       GGTCCCCTACAACGTTGCTGACCCGCAACAGATACTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Folag_005_1     GGTCCCCTACAACGTTGCTGACCCGCAACAGATACTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Foniv_002       GGTCCCCTACAACGTTGCTGACCCGCAACAGATACTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Foniv_013       GGTCCCCTACAACGTTGCTGACCCGCAACAGATACTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Foniv_019       GGTCCCCTACAACGTTGCTGACCCGCAACAGATACTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Focuc_018       GGTCCCCTACAACGTTGCTGACCCGCAACAGATACTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Focuc_021       GGTCCCCTACAACGTTGCTGACCCGCAACAGATACTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Focuc_030       GGTCCCCTACAACGTTGCTGACCCGCAACAGATACTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACACAG
Folag_002_0     GGTCCCCTACAACGTTCCCGGCCCGCAACAGATACTCCTGGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACATAA
Folag_004       GGTCCCCTACAACGTTCCCGGCCCGCAACAGATACTCCTGGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACATAA
Folag_005_0     GGTCCCCTACAACGTTCCCGGCCCGCAACAGATACTCCTGGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAGGACATAA
Forcu_031_0     TGTTCCCTACAACGTTCCCGGCCCCCAAGAGATGCTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAAGACATAA
Forcu_024_0     TGTTCCCTACAACGTTCCCGGCCCCCAAGAGATGCTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAAGACATAA
Forcu_016_0     TGTTCCCTACAACGTTCCCGGCCCCCAAGAGATGCTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAAGACATAA
Fomln_016_0     TGTTCCCTACAACGTTCCCGGCCCCCAAGAGATGCTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAAGACATAA
Fomln_005_0     TGTTCCCTACAACGTTCCCGGCCCCCAAGAGATGCTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAAGACATAA
Fomln_001_0     TGTTCCCTACAACGTTCCCGGCCCCCAAGAGATGCTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAAGACATAA
Fomln_004_0     TGTTCCCTACAACGTTCCCGGCCCCCAAGAGATGCTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAAGACATAA
Fomln_006_0     TGTTCCCTACAACGTTCCCGGCCCCCAAGAGATGCTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAAGACATAA
Fomln_012_0     TGTTCCCTACAACGTTCCCGGCCCCCAAGAGATGCTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGA--------
Fomln_013_0     TGTTCCCTACAACGTTCCCGGCCCCCAAGAGATGCTCCTCGGAGGAATGGTCGTGTCCTTTACCATGGTCGGAAAGTGGGTAA-AGGAAGGAAGACATAA
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fp7321 rev <
cucurbit-infecting strains

Marker #94

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Focuc_037_1     TACTTTAAAATACGTCTGCTCGCAAATTAACATCCGTAATCCTACTACCGTT------------AACAAGGTGGTCACCTTGGCCTCGAAAGGTG-----
Fomln_012_1     TACTTTAAAATACGTCTGCTCGCAAATTAACATCCGTAATCCTACTACCGTT------------AACAAGGTGGTCACCTTGGCCTCGAAAGGTG-----
Foluf_001_3     TACTTTAAAATACGTCTGCTCGCAAATTAACATCCGTAATCCTACTACCGTT------------AACAAGGTGGTCACCTTGGCCTCGAAAGGTG-----
Fomln_013_2     TACTTTAAAATACGTCTGCTCGCAAATTAACATCCGTAATCCTACTACCGTT------------AACAAGGTGGTCACCTTGGCCTCGAAAGGTG-----
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Fomln_005_2     TACTTTAAAATACGTCTGCTCGCAAATTAACATCCGTAATCCTACTACCGTT------------AACAAGGTGGTCACCTTGGCCTCGAAAGGTG-----
Fomln_006_2     TACTTTAAAATACGTCTGCTCGCAAATTAACATCCGTAATCCTACTACCGTT------------AACAAGGTGGTCACCTTGGCCTCGAAAGGTG-----
Fomln_016_2     TACTTTAAAATACGTCTGCTCGCAAATTAACATCCGTAATCCTACTACCGTT------------AACAAGGTGGTCACCTTGGCCTCGAAAGGTG-----
Forcu_016_2     TACTTTAAAATACGTCTGCTCGCAAATTAACATCCGTAATCCTACTACCGTT------------AACAAGGTGGTCACCTTGGCCTCGAAAGGTG-----
Forcu_024_2     TACTTTAAAATACGTCTGCTCGCAAATTAACATCCGTAATCCTACTACCGTT------------AACAAGGTGGTCACCTTGGCCTCGAAAGGTG-----
Forcu_031_1     TACTTTAAAATACGTCTGCTCGCAAATTAACATCCGTAATCCTACTACCGTT------------AACAAGGTGGTCACCTTGGCCTCGAAAGGTG-----
Foluf_001_2     TGCTTATAGATACGTCTGCAAGAGCATTAAGTTCCATAACCCCACCGCAAGG------------AATAAGGTCATCACTTTGATCGCGAACGGCGCCGCT
Foluf_002_2     TGCTTATAGATACGTCTGCAAGAGCATTAAGTTCCATAACCCCACCGCAAGG------------AATAAGGTCATCACTTTGATCGCGAACGGCGCCGCT
Foluf_001_1     TGTTTATACATACGTCTGCCAGGGCATTAACTTCACAAATACCAGCGCGAGG------------TCTAAGGTTGTCACTGTAATCGCGAACGGAG-----
Foluf_002_1     TGTTTATACATACGTCTGCCAGGGCATTAACTTCACAAATACCAGCGCGAGG------------TCTAAGGTTGTCACTGTAATCGCGAACGGAG-----
Fomln_009       TGTTTACATATACATCTGCAAGGGCACTAGCTTCACGAATCCCAGCGAGAGG------------CGTAAGGTCGTCACTTTGGTCGCAAACGGAG-----
Fomln_011       TGTTTACATATACATCTGCAAGGGCATTAGCTTCATGAATCCCAGCGAGAGG------------CGTAAGGTCGTCACTTTGGTCGCAAATGGAG-----
Fopis_HDV247_0  TGTTTACAGATACATCTGTAAGGGCATTAACTTCGCGAATCCCACCGCGAAG------------CGTAAGGCCGTCACTTTGGTCGCGAACAGAG-----
Fopis_HDV247_1  TGTTTACAGATACATCTGTAAGGGCATTAACTTCGCGAATCCCACCGCGAAG------------CGTAAGGCCGTCACTTTGGTCGCGAACAGAG-----
Fopis_HDV247_2  TGTTTACAGATACATCTGTAAGGGCATTAACTTCGCGAATCCCACCGCGAATCCCACCGCGAAGCGTAAGGCCGTCATTTTGGTCGCGAACAGAG-----
Fotul_Tu67_0    TGTTTACAGATACATCTGCAACAGCATTAGCTTCGCGAATCCCAGCGCGAGG------------CGTAAGGTCATCAGTTTGGCCGCGAACGGAG-----
Forap_PHW815    TGTTTACAGACATATCTGTAACGGCGTCAGCTTCTATAATCCCACCTCAACT------------CGTAAGGTCGTCACTTTGGTCGCCAACGGTG-----
Forcu_016_1     TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAGGTCGTTACTTTGATCGCCAACGGTG-----
Fomln_016_1     TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAAGTCGTCACTTTGATCGCCAATGGTG-----
Fomln_006_1     TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAAGTCGTCACTTTGATCGCCAATGGTG-----
Fomln_001_1     ------------------------------------------------------------------------------------------------------
Fomln_004_1     TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAAGTCGTCACTTTGATCGCCAATGGTG-----
Fomln_005_1     TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAAGTCGTCACTTTGATCGCCAATGGTG-----
Fomln_013_1     TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAAGTCGTCACTTTGATCGCCAATGGTG-----
Forcu_024_1     TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAAGTCGTCACTTTGATCGCCAATGGTG-----
Foniv_005       TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAGGTCGTTACTTTGATCGCCAACGGTG-----
Foniv_010       TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAGGTCGTTACTTTGATCGCCAACGGTG-----
Foniv_020       TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAGGTCGTTACTTTGATCGCCAACGGTG-----
Foluf_002_0     TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAGGTCGTTACTTTGATCGCCAACGGTG-----
Fomom_001       TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAGGTCGTTACTTTGATCGCCAACGGTG-----
Foluf_001_0     TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAGGTCGTTACTTTGATCGCCAACGGTG-----
Fomom_004       TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAGGTCGTTACTTTGATCGCCAACGGTG-----
Folag_002_1     TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAGGTCGTTACTTTGATCGCCAACGGTG-----
Foniv_015       TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAGGTCGTTACTTTGATCGCCAACGGTG-----
Foniv_021       TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAGGTCGTTACTTTGATCGCCAACGGTG-----
Foniv_037       TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAGGTCGTTACTTTGATCGCCAACGGTG-----
Focuc_011       TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAGGTCGTTACTTTGATCGCCAACGGTG-----
Focuc_035       TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAGGTCGTTACTTTGATCGCCAACGGTG-----
Focuc_037_0     TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAGGTCGTTACTTTGATCGCCAACGGTG-----
Focuc_001       TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAGGTCGTTACTTTGATCGCCAACGGTG-----
Focuc_013       TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAGGTCGTTACTTTGATCGCCAACGGTG-----
Focuc_015       TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAGGTCGTTACTTTGATCGCCAACGGTG-----
Folag_001       TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAGGTCGTTACTTTGATCGCCAACGGTG-----
Folag_005_1     TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAGGTCGTTACTTTGATCGCCAACGGTG-----
Foniv_002       TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAGGTCGTTACTTTGATCGCCAACGGTG-----
Foniv_013       TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAGGTCGTTACTTTGATCGCCAACGGTG-----
Foniv_019       TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAGGTCGTTACTTTGATCGCCAACGGTG-----
Focuc_018       TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAGGTCGTTACTTTGATCGCCAACGGTG-----
Focuc_021       TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAGGTCGTTACTTTGATCGCCAACGGTG-----
Focuc_030       TGTTTACAGATACATCTGCAAGAGCATTACCTTCACGAATCCCACCTCGACT------------CGTAAGGTCGTTACTTTGATCGCCAACGGTG-----
Folag_002_0     TGTTTACAGATACATCTGCAAGAGCATTAGCTTCGAGAACCACAGCGCGACT------------CGTAAAGTCGTCACTTTGATCGCCAACGGTG-----
Folag_004       TGTTTACAGATACATCTGCAAGAGCATTAGCTTCGAGAACCACAGCGCGACT------------CGTAAAGTCGTCACTTTGATCGCCAACGGTG-----
Folag_005_0     TGTTTACAGATACATCTGCAAGAGCATTAGCTTCGAGAACCACAGCGCGACT------------CGTAAAGTCGTCACTTTGATCGCCAACGGTG-----
Forcu_031_0     TGTTTACAGATACATCTGCAAGAGCATTGGCTTCGAGAACCACAGCGCGACG------------CGTAAAGTCGTCACTGTGATCGCCAACGGTG-----
Forcu_024_0     TGTTTACAGATACATCTGCAAGAGCATTGGCTTCGAGAACCACAGCGCGACG------------CGTAAAGTCGTCACTGTGATCGCCAACGGTG-----
Forcu_016_0     TGTTTACAGATACATCTGCAAGAGCATTGGCTTCGAGAACCACAGCGCGACG------------CGTAAAGTCGTCACTGTGATCGCCAACGGTG-----
Fomln_016_0     TGTTTACAGATACATCTGCAAGAGCATTGGCTTCGAGAACCACAGCGCGACG------------CGTAAAGTCGTCACTGTGATCGCCAACGGTG-----
Fomln_005_0     TGTTTACAGATACATCTGCAAGAGCATTGGCTTCGAGAACCACAGCGCGACG------------CGTAAAGTCGTCACTGTGATCGCCAACGGTG-----
Fomln_001_0     TGTTTACAGATACATCTGCAAGAGCATTGGCTTCGAGAACCACAGCGCGACG------------CGTAAAGTCGTCACTGTGATCGCCAACGGTG-----
Fomln_004_0     TGTTTACAGATACATCTGCAAGAGCATTGGCTTCGAGAACCACAGCGCGACG------------CGTAAAGTCGTCACTGTGATCGCCAACGGTG-----
Fomln_006_0     TGTTTACAGATACATCTGCAAGAGCATTGGCTTCGAGAACCACAGCGCGACG------------CGTAAAGTCGTCACTGTGATCGCCAACGGTG-----
Fomln_012_0     ------------------------------------------------------------------------------------------------------
Fomln_013_0     TGTTTACAGATACATCTGCAAGAGCATTGGCTTCGAGAACCACAGCGCGACG------------CGTAAAGTCGTCACTGTGATCGCCAACGGTG-----
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Marker #94

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                701
Fotul_Tu67_1     ------TCTCTCTTCTGAGAAACCAACCCCTTACGCATCAGAGG------------GTCATCGGAATCAAAGCGCCGGAGGGAGGATTTGGCCAGACCGT
Folag_002_2      ------TTTCTCTTCTGAAAAACCAACCCCTTACGCATGAGAGG------------GTCATCGGAATCAAAGCGCCGGAGGGAGGATTTGGCCAGACCGT
Focuc_037_1      ------TCACTCTTCTGAAAAACCAACCCTTTACGCATGAGAGG------------GTCATGGGAATCAAAGCGCCGGAGGGAGGATTTGGCCAGACCTT
Fomln_012_1      ------TCACTCTTCTGAAAAACCAACCCTTTACGCATGAGAGG------------GTCATGGGAATCAAAGCGCCGGAGGGAGGATTTGGCCAGACCTT
Foluf_001_3      ------TCACTCTTCTGAAAAACCAACCCTTTACGCATGAGAGG------------GTCATGGGAATCAAAGCGCCGGAGGGAGGATTTGGCCAGACCTT
Fomln_013_2      ------TCACTCTTCTGAAAAACCAACCCTTTACGCATGAGAGG------------GTCATGGGAATCAAAGCGCCGGAGGGAGGATTTGGCCAGACCTT
Fomln_001_2      ------TCACTCTTCTGAAAAACCAACCCTTTACGCATGAGAGG------------GTCATGGGAATCAAAGCGCCGGAGGGAGGATTTGGCCAGACCTT
Fomln_004_2      ------TCACTCTTCTGAAAAACCAACCCTTTACGCATGAGAGG------------GTCATGGGAATCAAAGCGCCGGAGGGAGGATTTGGCCAGACCTT
Fomln_005_2      ------TCACTCTTCTGAAAAACCAACCCTTTACGCATGAGAGG------------GTCATGGGAATCAAAGCGCCGGAGGGAGGATTTGGCCAGACCTT
Fomln_006_2      ------TCACTCTTCTGAAAAACCAACCCTTTACGCATGAGAGG------------GTCATGGGAATCAAAGCGCCGGAGGGAGGATTTGGCCAGACCTT
Fomln_016_2      ------TCACTCTTCTGAAAAACCAACCCTTTACGCATGAGAGG------------GTCATGGGAATCAAAGCGCCGGAGGGAGGATTTGGCCAGACCTT
Forcu_016_2      ------TCACTCTTCTGAAAAACCAACCCTTTACGCATGAGAGG------------GTCATGGGAATCAAAGCGCCGGAGGGAGGATTTGGCCAGACCTT
Forcu_024_2      ------TCACTCTTCTGAAAAACCAACCCTTTACGCATGAGAGG------------GTCATGGGAATCAAAGCGCCGGAGGGAGGATTTGGCCAGACCTT
Forcu_031_1      ------TCACTCTTCTGAAAAACCAACCCTTTACGCATGAGAGG------------GTCATGGGAATCAAAGCGCCGGAGGGAGGATTTGGCCAGACCTT
Foluf_001_2      CAAGGCTCGGACCCACTACACTGCAAATCCACGTGGACCACATATAAGTGGCCCATCTCTATTACATCCACTTGTCGGCG--------------CTCAGA
Foluf_002_2      CAAGGCTCGGACCCACTACACTGCAAATCCACGTGGACCACATATAAGTGGCCCATCTCTATTACATCCACTTGTCGGCG--------------CTCAGA
Foluf_001_1      ------CCGACCTCATGCGCAACCAACCTCTTCCGGCACATAGG------------ATCGATAGCGTAGGGCCGCCGGCGGTAGGCTTTGGCCGCACCGT
Foluf_002_1      ------CCGACCTCATGCGCAACCAACCTCTTCCGGCACATAGG------------ATCGATAGCGTAGGGCCGCCGGCGGTAGGCTTTGGCCGCACCGT
Fomln_009        ------CTGCTCTTCTGCACAACCAACCCCTTCTGCAACAGAGA------------GTCGATGGCGTCAGGGCGCCGGCAGAAGACTTTGGAAACACCGT
Fomln_011        ------TCGCTCTTCTACACAACCAACCCCTTCTGCAACAGAGA------------GTCGATGGCGTCAGGGCGCCGGCAGAAGACTTTGGAAACACCGT
Fopis_HDV247_0   ------TCGCTCCTCTACACAACCAACCCCTTCCGGAACAGAGG------------GTCGATGGCGTCAGGGCACCGGCAGAAGGCTTTGGTAACACGGC
Fopis_HDV247_1   ------TCGCTCCTCTACACAACCAACCCCTTCCGGAACAGAGG------------GTCGATGGCGTCAGGGCACCGGCAGAAGGCTTTGGTAACACGGC
Fopis_HDV247_2   ------TCGCTCCTCTACACAACCAACCCCTTCCGGAACAGAGG------------GTCGATGGCGTCAGGGCACCGGCAGAAGGCTTTGGCAACACCGC
Fotul_Tu67_0     ------TCATTCTTCTGCGCAACCAACCCCTTCCGCAACAGATA------------GTCGATGGCGTCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Forap_PHW815     ------CTAGACTTCTAGTCAATCAACCCCTTTCGGAACACAGG------------GTCGATGGGTATAGG---------GGAGACTTGGGTAAGACCGT
Forcu_016_1      ------TCAAACTTATGGAAAATCAAATCTTTTCGGAACACAGG------------ATCAATAGCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Fomln_016_1      ------TCGAACTTTTGAAGAATCAACCCTTTTCGGAACACAGG------------ATCAATAGCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Fomln_006_1      ------TCGAACTTTTGAAGAATCAACCCTTTTCGGAACACAGG------------ATCAATAGCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Fomln_001_1      ------------------------------------------------------------------------------------------------------
Fomln_004_1      ------TCGAACTTTTGAAGAATCAACCCTTTTCGGAACACAGG------------ATCAATAGCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Fomln_005_1      ------TCGAACTTTTGAAGAATCAACCCTTTTCGGAACACAGG------------ATCAATAGCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Fomln_013_1      ------TCGAACTTTTGAAGAATCAACCCTTTTCGGAACACAGG------------ATCAATAGCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Forcu_024_1      ------TCGAACTTTTGAAGAATCAACCCTTTTCGGAACACAGG------------ATCAATAGCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Foniv_005        ------TCAAACTTATGGAAAATCAACCCTTTTCGGAACACAGG------------ATCAATANNNNNN------------------------------
Foniv_010        ------TCAAACTTATGGAAAATCAACCCTTTTCGGAACACAGG------------ATCAATA-----------------------------------
Foniv_020        ------TCAAACTTATGGAAAATCAACCCTTTTCGGAACACAGG------------ATCAATAGCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Foluf_002_0      ------TCAAACTTATGGAAAATCAACCCTTTTCGGAACACAGG------------ATCAATAGCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Fomom_001        ------TCAAACTTATGGAAAATCAACCCTTTTCGGAACACAGG------------ATCAATAGCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Foluf_001_0      ------TCAAACTTATGGAAAATCAACCCTTTTCGGAACACAGG------------ATCAATAGCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Fomom_004        ------TCAAACTTATGGAAAATCAACCCTTTTCGGAACACAGG------------ATCAATAGCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Folag_002_1      ------TCAAACTTATGGAAAATCAACCCTTTTCGGAACACAGG------------ATCAATACCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Foniv_015        ------TCAAACTTATGGAAAATCAACCCTTTTCGGAACACAGG------------ATCAATACCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Foniv_021        ------TCAAACTTATGGAAAATCAACCCTTTTCGGAACACAGG------------ATCAATACCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Foniv_037        ------TCAAACTTATGGAAAATCAACCCTTTTCGGAACACAGG------------ATCAATACCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Focuc_011        ------TCAAACTTATGGAAAATCAACCCTTTTCGGAACACAGG------------ATCAATACCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Focuc_035        ------TCAAACTTATGGAAAATCAACCCTTTTCGGAACACAGG------------ATCAATACCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Focuc_037_0      ------TCAAACTTATGGAAAATCAACCCTTTTCGGAACACAGG------------ATCAATACCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Focuc_001        ------TCAAACTTATGGAAAATCAACCCTTTTCGGAACACAGG------------ATCAATACCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Focuc_013        ------TCAAACTTATGGAAAATCAACCCTTTTCGGAACACAGG------------ATCAATACCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Focuc_015        ------TCAAACTTATGGAAAATCAACCCTTTTCGGAACACAGG------------ATCAATACCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Folag_001        ------TCAAACTTATGGAAAATCAACCCTTTTCGGAACACAGG------------ATCAATACCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Folag_005_1      ------TCAAACTTATGGAAAATCAACCCTTTTCGGAACACAGG------------ATCAATACCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Foniv_002        ------TCAAACTTATGGAAAATCAACCCTTTTCGGAACACAGG------------ATCAATACCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Foniv_013        ------TCAAACTTATGGAAAATCAACCCTTTTCGGAACACAGG------------ATCAATACCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Foniv_019        ------TCAAACTTATGGAAAATCAACCCTTTTCGGAACACAGG------------ATCAATACCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Focuc_018        ------TCAAACTTATGGAAAATCAACCCTTTTCGGAACACAGG------------ATCAATACCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Focuc_021        ------TCAAACTTATGGAAAATCAACCCTTTTCGGAACACAGG------------ATCAATACCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Focuc_030        ------TCAAACTTATGGAAAATCAACCCTTTTCGGAACACAGG------------ATCAATACCGCCAAGGCGCCGGCAGAAGGCTTTGGCAACACCGT
Folag_002_0      ------TCAAACTTATGGAAAATCAACCCTTTTCGGAACACAGG------------ATCAATGGCGTCAGTGCGCCGGCAGAGGGCTTTGGCAACACCGT
Folag_004        ------TCAAACTTATGGAAAATCAACCCTTTTCGGAACACAGG------------ATCAATGGCGTCAGTGCGCCGGCAGAGGGCTTTGGCAACACCGT
Folag_005_0      ------TCAAACTTATGGAAAATCAACCCTTTTCGGAACACAGG------------ATCAATGGCGTCAGTGCGCCGGCAGAGGGCTTTGGCAACACCGT
Forcu_031_0      ------TCAAAATTATGGACAATCAACCCTTTTCGGTACACAGG------------ATCAATGGCGTCAAGGCGCCGGCAGAGGGCTTTGGCAACACCGT
Forcu_024_0      ------TCAAAATTATGGACAATCAACCCTTTTCGGTACACAGG------------ATCAATGGCGTCAAGGCGCCGGCAGAGGGCTTTGGCAACACCGT
Forcu_016_0      ------TCAAAATTATGGACAATCAACCCTTTTCGGTACACAGG------------ATCAATGGCGTCAAGGCGCCGGCAGAGGGCTTTGGCAACACCGT
Fomln_016_0      ------TCAAAATTATGGACAATCAACCCTTTTCGGTACACAGG------------ATCAATGGCGTCAAGGCGCCGGCAGAGGGCTTTGGCAACACCGT
Fomln_005_0      ------TCAAAATTATGGACAATCAACCCTTTTCGGTACACAGG------------ATCAATGGCGTCAAGGCGCCGGCAGAGGGCTTTGGCAACACCGT
Fomln_001_0      ------TCAAAATTATGGACAATCAACCCTTTTCGGTACACAGG------------ATCAATGGCGTCAAGGCGCCGGCAGAGGGCTTTGGCAACACCGT
Fomln_004_0      ------TCAAAATTATGGACAATCAACCCTTTTCGGTACACAGG------------ATCAATGGCGTCAAGGCGCCGGCAGAGGGCTTTGGCAACACCGT
Fomln_006_0      ------TCAAAATTATGGACAATCAACCCTTTTCGGTACACAGG------------ATCAATGGCGTCAAGGCGCCGGCAGAGGGCTTTGGCAACACCGT
Fomln_012_0      ------------------------------------------------------------------------------------------------------
Fomln_013_0      ------TCAAAATTATGGACAATCAACCCTTTTCGGTACACAGG------------ATCAATGGCGTCAAGGCGCCGGCAGAGGGCTTTGGCAACACCGT
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Marker #94

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                801
Fotul_Tu67_1    TGACATCGTTGTCGCCAATC---------AAAG----AGGCTCCT---------------------AGTTTGAGGTGAAGTTTCTTAGAGAATTGTGCGT
Folag_002_2     TGACATCGTTGTCGGCAATC---------AAAG----AGGCTCCT---------------------AGTTTGAGGTGAAGTTTCTTAGAGAATTGTGCGT
Focuc_037_1     TGACATCGTTGTCGGCAATC---------AAAG----AGGCTCCT---------------------AGTTTGAGGTGAAGTTTCTTAGAGAATTGTGCGT
Fomln_012_1     TGACATCGTTGTCGGCAATC---------AAAG----AGGCTCCT---------------------AGTTTGAGGTGAAGTTTCTTAGAGAATTGTGCGT
Foluf_001_3     TGACATCGTTGTCGGCAATC---------AAAG----AGGCTCCT---------------------AGTTTGAGGTGAAGTTTCTTAGAGAATTGTGCGT
Fomln_013_2     TGACATCGTTGTCGGCAATC---------AAAG----AGGCTCCT---------------------AGTTTGAGGTGAAGTTTCTTAGAGAATTGTGCGT
Fomln_001_2     TGACATCGTTGTCGGCAATC---------AAAG----AGGCTCCT---------------------AGTTTGAGGTGAAGTTTCTTAGAGAATTGTGCGT
Fomln_004_2     TGACATCGTTGTCGGCAATC---------AAAG----AGGCTCCT---------------------AGTTTGAGGTGAAGTTTCTTAGAGAATTGTGCGT
Fomln_005_2     TGACATCGTTGTCGGCAATC---------AAAG----AGGCTCCT---------------------AGTTTGAGGTGAAGTTTCTTAGAGAATTGTGCGT
Fomln_006_2     TGACATCGTTGTCGGCAATC---------AAAG----AGGCTCCT---------------------AGTTTGAGGTGAAGTTTCTTAGAGAATTGTGCGT
Fomln_016_2     TGACATCGTTGTCGGCAATC---------AAAG----AGGCTCCT---------------------AGTTTGAGGTGAAGTTTCTTAGAGAATTGTGCGT
Forcu_016_2     TGACATCGTTGTCGGCAATC---------AAAG----AGGCTCCT---------------------AGTTTGAGGTGAAGTTTCTTAGAGAATTGTGCGT
Forcu_024_2     TGACATCGTTGTCGGCAATC---------AAAG----AGGCTCCT---------------------AGTTTGAGGTGAAGTTTCTTAGAGAATTGTGCGT
Forcu_031_1     TGACATCGTTGTCGGCAATC---------AAAG----AGGCTCCT---------------------AGTTTGAGGTGAAGTTTCTTAGAGAATTGTGCGT
Foluf_001_2     TTACTTAGTAATCCACTACACTTGGACCTGAAAGTGGATGT-----------------AATGGAGTGGATTTAGGTGGATTT-----GGGTACAGTGGGA
Foluf_002_2     TTACTTAGTAATCCACTACACTTGGACCTGAAAGTGGATGT-----------------AATGGAGTGGATTTAGGTGGATTT-----GGGTACAGTGGGA
Foluf_001_1     TGATATCATAATCAGAGATGGGCAG----GAAGTCTGACACTCAAACGGAA-------AACTGTATAGTTTGAGCTGTGGTGTCTGAGAGAACTGTGCGA
Foluf_002_1     TGATATCATAATCAGAGATGGGCAG----GAAGTCTGACACTCAAACGGAA-------AACTGTATAGTTTGAGCTGTGGTGTCTGAGAGAACTGTGCGA
Fomln_009       CAATATTGTAGTCGGAAATGCTTAG----GAAGATCAAAACTCATAGAA---------GACTGTACAGTTTGAGGTGGAGTTTCCAAGAGAACTTTGCGG
Fomln_011       CAATATTGTAGTCGGAAATGCTTAG----GAAGATCAAAACTCATAGAA---------GACTGTACAGTTTGAGGTGGAGTTTCCAAGAGAACTTTGCGG
Fopis_HDV247_0  CGATATTGTAGTCGGAAATGCCTAG----GAAGGCTAACGCTCATAAAA---------AACTGCACAGTTTGAGGTGAAGTTTCCAAGAGAACTGTGCTG
Fopis_HDV247_1  CGATATTGTAGTCGGAAATGCCTAG----GAAGGCTAACGCTCATAAAA---------AACTGCACAGTTTGAGGTGAAGTTTCCAAGAGAACTGTGCTG
Fopis_HDV247_2  CGATATTGTAGTCGGAAATGCCTAG----GAAGGCTAACGCTCATAAAA---------AACTGTACAGTTTGAGGTGAAGTTTCCAAGAGAACTGTGCGG
Fotul_Tu67_0    TGATATTATAGTCAGAAATGCCTAG----GAAGGCTAACGCTCAAATAAAA-------AACTGTACAGTTTGAGGTGACGTTTCCAAGAGAACTGTGCGG
Forap_PHW815    TGAAATTATTGTCGGGAATGCCTAG----GAAGACAAATGCTAAAACAGAA-------ATCTGTACAGTTTGAGGTGAAAGATCTAACAGAACTGTGCAG
Forcu_016_1     TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCANNNNNNNN------NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Fomln_016_1     TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAA-------AACTGTACAGTTTGAGTTGAAGTTTCTAGGAGAACTGTGCGG
Fomln_006_1     TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAA-------AACTGTACAGTTTGAGTTGAAGTTTCTAGGAGAACTGTGCGG
Fomln_001_1     ------------------------------------------------------------------------------------------------------
Fomln_004_1     TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAA-------AACTGTACAGTTTGAGTTGAAGTTTCTAGGAGAACTGTGCGG
Fomln_005_1     TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAA-------AACTGTACAGTTTGAGTTGAAGTTTCTAGGAGAACTGTGCGG
Fomln_013_1     TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAA-------AACTGTACAGTTTGAGTTGAAGTTTCTAGGAGAACTGTGCGG
Forcu_024_1     TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAA-------AACTGTACAGTTTGAGTTGAAGTTTCTAGGAGAACTGTGCGG
Foniv_005       ----------------------------NNNNNNNNNNNNNNNNAAAAAA-------AACTGTACAGTTTGAGTTGAAGTTTCCAGGAGAACTGTGCGG
Foniv_010       ------------------------------------------------------------------------------------------------------
Foniv_020       TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAA-------AACTGTACAGTTTGAGTTGAAGTTTCCAGGAGAACTGTGCGG
Foluf_002_0     TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAA-------AACTGTACAGTTTGAGTTGAAGTTTCCAGGAGAACTGTGCGG
Fomom_001       TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAA-------AACTGTACAGTTTGAGTTGAAGTTTCCAGGAGAACTGTGCGG
Foluf_001_0     TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAA-------AACTGTACAGTTTGAGTTGAAGTTTCCAGGAGAACTGTGCGG
Fomom_004       TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAA-------AACTGTACAGTTTGAGTTGAAGTTTCCAGGAGAACTGTGCGG
Folag_002_1     TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAAA------AACTGTACAGTTTGAGTTGAAGTTTCCAGGAGAACTGTGCGG
Foniv_015       TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAAA------AACTGTACAGTTTGAGTTGAAGTTTCCAGGAGAACTGTGCGG
Foniv_021       TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAAA------AACTGTACAGTTTGAGTTGAAGTTTCCAGGAGAACTGTGCGG
Foniv_037       TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAAA------AACTGTACAGTTTGAGTTGAAGTTTCCAGGAGAACTGTGCGG
Focuc_011       TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAA-------AACTGTACAGTTTGAGTTGAAGTTTCCAGGAGAACTGTGCGG
Focuc_035       TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAA-------AACTGTACAGTTTGAGTTGAAGTTTCCAGGAGAACTGTGCGG
Focuc_037_0     TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAA-------AACTGTACAGTTTGAGTTGAAGTTTCCAGGAGAACTGTGCGG
Focuc_001       TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAA-------AACTGTACAGTTTGAGTTGAAGTTTCCAGGAGAACTGTGCGG
Focuc_013       TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAA-------AACTGTACAGTTTGAGTTGAAGTTTCCAGGAGAACTGTGCGG
Focuc_015       TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAA-------AACTGTACAGTTTGAGTTGAAGTTTCCAGGAGAACTGTGCGG
Folag_001       TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAAA------AACTGTACAGTTTGAGTTGAAGTTTCCAGGAGAACTGTGCGG
Folag_005_1     TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAAA------AACTGTACAGTTTGAGTTGAAGTTTCCAGGAGAACTGTGCGG
Foniv_002       TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAAA------AACTGTACAGTTTGAGTTGAAGTTTCCAGGAGAACTGTGCGG
Foniv_013       TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAAA------AACTGTACAGTTTGAGTTGAAGTTTCCAGGAGAACTGTGCGG
Foniv_019       TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAAA------AACTGTACAGTTTGAGTTGAAGTTTCCAGGAGAACTGTGCGG
Focuc_018       TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAAA------AACTGTACAGTTTGAGTTGAAGTTTCCAGGAGAACTCTGCGG
Focuc_021       TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAAA------AACTGTACAGTTTGAGTTGAAGTTTCCAGGAGAACTCTGCGG
Focuc_030       TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATAAAAAAA------AACTGTACAGTTTGAGTTGAAGTTTCCAGGAGAACTCTGCGG
Folag_002_0     TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATTCAGCCGAAGGCTGACTCTACATTAATTCATAAGTTTTCCCGAGTAA---TGAGG
Folag_004       TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATTCAGCCGAAGGCTGACTCTACATTAATTCATAAGTTTTCCCGAGTAA---TGAGG
Folag_005_0     TGATATTGTAATCGGAAATGCCTAG----GAAGGCCAACGCTCATTCAGCCGAAGGCTGACTCTACATTAATTCATAAGTTTTCCCGAGTAA---TGAGG
Forcu_031_0     TGATATTGTAATCAGAAATGCCTAG----GAAGGCCAACGCTCATAAAA---------AACTGTACAGTTTGAGGTGAAATTTCCAGGAGAACTGTGCGG
Forcu_024_0     TGATATTGTAATCAGAAATGCCTAG----GAAGGCCAACGCTCATAAAA---------AACTGTACAGTTTGAGGTGAAATTTCCAGGAGAACTGTGCGG
Forcu_016_0     TGATATTGTAATCAGAAATGCCTAG----GAAGGCCAACGCTCATAAAA---------AACTGTACAGTTTGAGGTGAAATTTCCAGGAGAACTGTGCGG
Fomln_016_0     TGATATTGTAATCAGAAATGCCTAG----GAAGGCCAACGCTCATAAAA---------AACTGTACAGTTTGAGGTGAAATTTCCAGGAGAACTGTGCGG
Fomln_005_0     TGATATTGTAATCAGAAATGCCTAG----GAAGGCCAACGCTCATAAAA---------AACTGTACAGTTTGAGGTGAAATTTCCAGGAGAACTGTGCGG
Fomln_001_0     TGATATTGTAATCAGAAATGCCTAG----GAAGGCCAACGCTCATAAAA---------AACTGTACAGTTTGAGGTGAAATTTCCAGGAGAACTGTGCGG
Fomln_004_0     TGATATTGTAATCAGAAATGCCTAG----GAAGGCCAACGCTCATAAAA---------AACTGTACAGTTTGAGGTGAAATTTCCAGGAGAACTGTGCGG
Fomln_006_0     TGATATTGTAATCAGAAATGCCTAG----GAAGGCCAACGCTCATAAAA---------AACTGTACAGTTTGAGGTGAAATTTCCAGGAGAACTGTGCGG
Fomln_012_0     ------------------------------------------------------------------------------------------------------
Fomln_013_0     TGATATTGTAATCAGAAATGCCTAG----GAAGGCCAACGCTCATAAAA---------AACTGTACAGTTTGAGGTGAAATTTCCAGGAGAACTGTGCGG
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Marker #94

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                901
Fotul_Tu67_1    TTCTCTGT-------------------------TGGTTTTGGTTGGCTGGTGGACAGG-CATGCTTCC------CCAATAGTCTGCCACA----------
Folag_002_2     TTCTCTGT-------------------------TAGTTTTGGTTGGCTGGTGGACAGG-TATGCTTCC------CCAATAGTCTGCCGCA--------GA
Focuc_037_1     TTCT-----------------------------CTGTTGGTGTTGGTTGGCGGACAGG-TATGCTTCT------CCAATAGTCTGCCACAGGCTTT-GGG
Fomln_012_1     TTTT-----------------------------CTGTTGGTGTTGGTTGGCGGACAGG-TATGCTTCT------CCAATAGTCTGCCACAGGCTTTGGGG
Foluf_001_3     TTTT-----------------------------CTGTTGGTGTTGGTTGGCGGACAGG-TATGCTTCT------CCAATAGTCTGCCACA-GGCTT-TGG
Fomln_013_2     TTTT-----------------------------CTGTTGGTGTTGGTTGGCGGACAGG-TATGCTTCT------CCAATAGTCTGCCACA-GGCTT-TGG
Fomln_001_2     TTTT-----------------------------CTGTTGGTGTTGGTTGGCGGACAGG-TATGCTTCT------CCAATAGTCTGCCACAGGCTTT-GGG
Fomln_004_2     TTTT-----------------------------CTGTTGGTGTTGGTTGGCGGACAGG-TATGCTTCT------CCAATAGTCTGCCACAGGCTTT-GGG
Fomln_005_2     TTTT-----------------------------CTGTTGGTGTTGGTTGGCGGACAGG-TATGCTTCT------CCAATAGTCTGCCACAGGCTTT-GGG
Fomln_006_2     TTTT-----------------------------CTGTTGGTGTTGGTTGGCGGACAGG-TATGCTTCT------CCAATAGTCTGCCACAGGCTTT-GGG
Fomln_016_2     TTTT-----------------------------CTGTTGGTGTTGGTTGGCGGACAGG-TATGCTTCT------CCAATAGTCTGCCACAGGCTTT-GGG
Forcu_016_2     TTTT-----------------------------CTGTTGGTGTTGGTTGGCGGACAGG-TATGCTTCT------CCAATAGTCTGCCACAGGCTTT-GGG
Forcu_024_2     TTTT-----------------------------CTGTTGGTGTTGGTTGGCGGACAGG-TATGCTTCT------CCAATAGTCTGCCACAGGCTTT-GGG
Forcu_031_1     TTTT-----------------------------CTGTTGGTGTTGGTTGGCGGACAGG-TATGCTTCT------CCAATAGTCTGCCACAGGCTTT-GGG
Foluf_001_2     TATTCCC--------------------------TGACCCTGTACGGTTCATAG------TACTTATTTTTGTATATAATTGCCTATTAAA----------
Foluf_002_2     TATTCCC--------------------------TGACCCTGTACGGTTCATAG------TACTTATTTTTGTATATAATTGCCTATTAAA----------
Foluf_001_1     TTTTTCTG-------------------------TTCTCATGTTTAGCCTGCTAATTGACTATAATTCTGAGTATAGAGTTGCTTTTAGCA----------
Foluf_002_1     TTTTTCTG-------------------------TTCTCATGTTTAGCCTGCTAATTGACTATAATTCTGAGTATAGAGTTGCTTTTAGCA----------
Fomln_009       TTTT----CTTTTTTCTCTTCTCTT--------TTCTTTTGACTAGCCGGTGGAGAGG-TATGCTTCC------CCGATTGCCTATCAAA----------
Fomln_011       TTTT----CTTTTTTCTCTTCTCTT--------TTCTTTTGACTAGCCGGTGGAGAGG-TATGCTTCC------CCGATTGCCTATCAAA----------
Fopis_HDV247_0  TTTTTTTTTCTCTCTCTCTCTCTTCTTT-----TTCTTTTGGCTGGCCGGTGGAGAGG-TATGCTTCC------TCGATTGGCTATCAAA----------
Fopis_HDV247_1  TTTTTTTTTCTCTCTCTCTCTCTTCTTT-----TTCTTTTGGCTGGCCGGTGGAGAGG-TATGCTTCC------TCGATTGGCTATCAAA----------
Fopis_HDV247_2  TTTTTTTTTTTCTCTCTCTCTTCTTT-----TTCTTTTGGCTGGCCGGTGGAGAGG-TATGCTTCC------TCGATTGGCTATCAAA----------
Fotul_Tu67_0    TTTTTTTTGGGTTTTTTC---------------TTCCTTTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGGCTGGCTATCAAA----------
Forap_PHW815    TTTTTTTGTTTAT--------------------TTGTTTTGGCTGGCCTGTAGAGAGG-TATGCTTTC------CTGGCTATCTATAACG----------
Forcu_016_1     NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN-NNNNNNNNN------NNNNNNNNNNNNNNNN----------
Fomln_016_1     TTTTTTCCCTTTCTTTTCTTCTCTCTCTCTCTCTTCTTCTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Fomln_006_1     TTTTTTCCCTTTCTTTTCTTCTCTCTCTCTCTCTTCTTCTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Fomln_001_1     ----------------------------------------------------------------------------------------------------
Fomln_004_1     TTTTTTCCCTTTCTTTTCTTCTCTCTCTCTCTCTTCTTCTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Fomln_005_1     TTTTTTCCCTTTCTTTTCTTCTCTCTCTCTCTCTTCTTCTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Fomln_013_1     TTTTTTCCCTTTCTTTTCTTCTCTCTCTCTCTCTTCTTCTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Forcu_024_1     TTTTTTCCCTTTCTTTTCTTCTCTCTCTCTCTCTTCTTCTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Foniv_005       TTTTTTCCCTTTCTTTTCTTCTCTCTCTCT---TTCTTTTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Foniv_010       ----------------------------------------------------------------------------------------------------
Foniv_020       TTTTTTCCCTTTCTTTTCTTCTCTCTCTCT---TTCTTTTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Foluf_002_0     TTTTTTCCCTTTCTTTTCTTCTCTCTCTCT---TTCTTTTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Fomom_001       TTTTTTCCCTTTCTTTTCTTCTCTCTCTCT---TTCTTTTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Foluf_001_0     TTTTTTCCCTTTCTTTTCTTCTCTCTCTCT---TTCTTTTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Fomom_004       TTTTTTCCCTTTCTTTTCTTCTCTCTCTCT---TTCTTTTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Folag_002_1     TTTTTTCCCTTTCTTTTCTTCTCTCTCTCT---TTCTTTTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Foniv_015       TTTTTTCCCTTTCTTTTCTTCTCTCTCTCT---TTCTTTTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Foniv_021       TTTTTTCCCTTTCTTTTCTTCTCTCTCTCT---TTCTTTTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Foniv_037       TTTTTTCCCTTTCTTTTCTTCTCTCTCTCT---TTCTTTTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Focuc_011       TTTTTTCCCTTTCTTTTCTTCTCTCTCTCT---TTCTTTTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Focuc_035       TTTTTTCCCTTTCTTTTCTTCTCTCTCTCT---TTCTTTTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Focuc_037_0     TTTTTTCCCTTTCTTTTCTTCTCTCTCTCT---TTCTTTTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Focuc_001       TTTTTTCCCTTTCTTTTCTTCTCTCTCTCT---TTCTTTTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Focuc_013       TTTTTTCCCTTTCTTTTCTTCTCTCTCTCT---TTCTTTTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Focuc_015       TTTTTTCCCTTTCTTTTCTTCTCTCTCTCT---TTCTTTTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Folag_001       TTTTTTCCCTTTCTTTTCTTCTCTCTCTCT---TTCTTTTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Folag_005_1     TTTTTTCCCTTTCTTTTCTTCTCTCTCTCT---TTCTTTTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Foniv_002       TTTTTTCCCTTTCTTTTCTTCTCTCTCTCT---TTCTTTTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Foniv_013       TTTTTTCCCTTTCTTTTCTTCTCTCTCTCT---TTCTTTTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Foniv_019       TTTTTTCCCTTTCTTTTCTTCTCTCTCTCT---TTCTTTTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Focuc_018       TTTTTTCCCTTTCTTTTCTTCTCTCTCTCT---TTCTTTTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Focuc_021       TTTTTTCCCTTTCTTTTCTTCTCTCTCTCT---TTCTTTTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Focuc_030       TTTTTTCCCTTTCTTTTCTTCTCTCTCTCT---TTCTTTTGGCTGGCTGGTGGAGAGG-TATGCTTCC------CCGATTGGCTATCACA----------
Folag_002_0     GTTTGGT----------------------------------GCAGACAG--GGATAAA-TAAGTTTCTCGGAATCTGATTGGT--CCAGA----------
Folag_004       GTTTGGT----------------------------------GCAGACAG--GGATAAA-TAAGTTTCTCGGAATCTGATTGGT--CCAGA----------
Folag_005_0     GTTTGGT----------------------------------GCAGACAG--GGATAAA-TAAGTTTCTCGGAATCTGATTGGT--CCAGA----------
Forcu_031_0     TTTTTTCCCTTTTTTCTTTTCTCTC--------TTCTTTTGGCTGGCCGGTGGAGAGG-TATGCTTCCC-----CTGGTTGGCTTTCAAA----------
Forcu_024_0     TTTTTTCCCTTTTTTCTTTTCTCTC--------TTCTTTTGGCTGGCCGGTGGAGAGG-TATGCTTCCC-----CTGGTTGGCTTTCAAA----------
Forcu_016_0     TTTTTTCCCTTTTTTCTTTTCTCTC--------TTCTTTTGGCTGGCCGGTGGAGAGG-TATGCTTCCC-----CTGGTTGGCTTTCAAA----------
Fomln_016_0     TTTTTTCCCTTTTTTCTTTTCTCTC--------TTCTTTTGGCTGGCCGGTGGAGAGG-TATGCTTCCC-----CTGGTTGGCTTTCAAA----------
Fomln_005_0     TTTTTTCCCTTTTTTCTTTTCTCTC--------TTCTTTTGGCTGGCCGGTGGAGAGG-TATGCTTCCC-----CTGGTTGGCTTTCAAA----------
Fomln_001_0     TTTTTTCCCTTTTTTCTTTTCTCTC--------TTCTTTTGGCTGGCCGGTGGAGAGG-TATGCTTCCC-----CTGGTTGGCTTTCAAA----------
Fomln_004_0     TTTTTTCCCTTTTTTCTTTTCTCTC--------TTCTTTTGGCTGGCCGGTGGAGAGG-TATGCTTCCC-----CTGGTTGGCTTTCAAA----------
Fomln_006_0     TTTTTTCCCTTTTTTCTTTTCTCTC--------TTCTTTTGGCTGGCCGGTGGAGAGG-TATGCTTCCC-----CTGGTTGGCTTTCAAA----------
Fomln_012_0     ----------------------------------------------------------------------------------------------------
Fomln_013_0     TTTTTTCCCTTTTTTCTTTTCTCTC--------TTCTTTTGGCTGGCCGGTGGAGAGG-TATGCTTCCC-----CTGGTTGGCTTTCAAA----------
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# Marker #94

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Fotul_Tu67_1    ---------GGCTTTTTTATTTTTTTTATTTTTAGGGGGGGGGGGGGGGGGGGNNAA------------------------------------
Folag_002_2     GTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGGGGGGGGGGGGGG-----------------------------------------
Focuc_037_1     GGGGGGGGGGTTTGAGGTTTGAATTGTTCCTTTCGTCCGAACGTC-----------------------------------------------
Fomln_012_1     GGGGGGGGGGTTTGAGGTTTGAATTGTTCCTTTCGTCCGAACGT------------------------------------------------
Foluf_001_3     GGGGGGGGGGTTTGAGGTTTGAATTGTTCCTTTCGTCCGAACGTCT----------------------------------------------
Fomln_013_2     GGGGGGGGGGTTTGAGGTTTGAATTGTTCCTTTCGTCCGAACGTCT----------------------------------------------
Fomln_001_2     GGGGGGGGGGTTTGAGGTTTGAATTGTTCCTTTCGTCCGAACGTC-----------------------------------------------
Fomln_004_2     GGGGGGGGGGTTTGAGGTTTGAATTGTTCCTTTCGTCCGAACGTC-----------------------------------------------
Fomln_005_2     GGGGGGGGGGTTTGAGGTTTGAATTGTTCCTTTCGTCCGAACGTC-----------------------------------------------
Fomln_006_2     GGGGGGGGGGTTTGAGGTTTGAATTGTTCCTTTCGTCCGAACGTC-----------------------------------------------
Fomln_016_2     GGGGGGGGGGTTTGAGGTTTGAATTGTTCCTTTCGTCCGAACGTCT----------------------------------------------
Forcu_016_2     GGGGGGGGGGTTTGAGGTTTGAATTGTTCCTTTCGTCCGAACGTCT----------------------------------------------
Forcu_024_2     GGGGGGGGGGTTTGAGGTTTGAATTGTTCCTTTCGTCCGAACGTCT----------------------------------------------
Forcu_031_1     GGGGGGGGGGTTTGAGGTTTGAATTGTTCCTTTCGTCCGAACGTCT----------------------------------------------
Foluf_001_2     ------------TCGAGGTACCTGGACCCAAGTTAGCCGAG---------------------------------------------------
Foluf_002_2     ------------TCGAGGTACCTGGACCCAAGTTAGCCGAGG--------------------------------------------------
Foluf_001_1     ----------------------CTTGTACGTAAGAGAGGAAA-------------------------------------------------
Foluf_002_1     ----------------------CTTGTACGTAAGAGAGGAAAT------------------------------------------------
Fomln_009       ----------------------------------AGCCCGGGGGCCTTTGG-------------------------------------------
Fomln_011       ----------------------------------AGCCCGGGGGCCTTTGG-------------------------------------------
Fopis_HDV247_0  ----------------------------------AGCCGGGAG----------------------------------------------------
Fopis_HDV247_1  ----------------------------------AGCCGGGAG----------------------------------------------------
Fopis_HDV247_2  ----------------------------------AGCCGGGGA----------------------------------------------------
Fotul_Tu67_0    ----------------------------------AGCCGGGGGGCTTTTGGG-------------------------------------------
Forap_PHW815    ----------------------------------AACCCGGAGGGCTTTGACCTGT-------------------------------------
Forcu_016_1     ----------------------------------NN-------------------------------------------------------
Fomln_016_1     ----------------------------------AG-------------------------------------------------------
Fomln_006_1     ----------------------------------AG-------------------------------------------------------
Fomln_001_1     ------------------------------------------------------------------------------------------
Fomln_004_1     ----------------------------------AGC------------------------------------------------------
Fomln_005_1     ----------------------------------AGC------------------------------------------------------
Fomln_013_1     ----------------------------------AGC------------------------------------------------------
Forcu_024_1     ----------------------------------AGC------------------------------------------------------
Foniv_005       ----------------------------------AGCCGGGAGGCCTTTGGGTTGTTCCTTTCTTACGAAAGCCTCTATCTTGGAGCTTTCGTTTA
Foniv_010       ------------------------------------------------------------------------------------------
Foniv_020       ----------------------------------AGCCG------------------------------------------------------
Foluf_002_0     ----------------------------------AGCCG------------------------------------------------------
Fomom_001       ----------------------------------AGCCG------------------------------------------------------
Foluf_001_0     ----------------------------------AGCCGG-----------------------------------------------------
Fomom_004       ----------------------------------AGCCGG-----------------------------------------------------
Folag_002_1     ----------------------------------AGCC-------------------------------------------------------
Foniv_015       ----------------------------------AGCC-------------------------------------------------------
Foniv_021       ----------------------------------AGCC-------------------------------------------------------
Foniv_037       ----------------------------------AGCC-------------------------------------------------------
Focuc_011       ----------------------------------AGCCGG-----------------------------------------------------
Focuc_035       ----------------------------------AGCCGG-----------------------------------------------------
Focuc_037_0     ----------------------------------AGCCGG-----------------------------------------------------
Focuc_001       ----------------------------------AGCCG------------------------------------------------------
Focuc_013       ----------------------------------AGCCG------------------------------------------------------
Focuc_015       ----------------------------------AGCCG------------------------------------------------------
Folag_001       ----------------------------------AGCCG------------------------------------------------------
Folag_005_1     ----------------------------------AGCCG------------------------------------------------------
Foniv_002       ----------------------------------AGCCG------------------------------------------------------
Foniv_013       ----------------------------------AGCCG------------------------------------------------------
Foniv_019       ----------------------------------AGCCG------------------------------------------------------
Focuc_018       ----------------------------------AGCCG------------------------------------------------------
Focuc_021       ----------------------------------AGCCG------------------------------------------------------
Focuc_030       ----------------------------------AGCC-------------------------------------------------------
Folag_002_0     ----------------------TTTTGTATGGCCAGCCGCGAAAGAACGCGC----------------------------------------
Folag_004       ----------------------TTTTGTATGGCCAGCCGCGAAAGAACGCGC----------------------------------------
Folag_005_0     ----------------------TTTTGTATGGCCAGCCGCGAAAGAACGCGCA---------------------------------------
Forcu_031_0     ----------------------------------AGCCGGGGGAC----------------------------------------------
Forcu_024_0     ----------------------------------AGCCGGGGGAC----------------------------------------------
Forcu_016_0     ----------------------------------AGCCGGGGGAC----------------------------------------------
Fomln_016_0     ----------------------------------AGCCGGGGGAC----------------------------------------------
Fomln_005_0     ----------------------------------AGCCGGGGGAC----------------------------------------------
Fomln_001_0     ----------------------------------AGCCGGGGGACC---------------------------------------------
Fomln_004_0     ----------------------------------AGCCGGGGGACC---------------------------------------------
Fomln_006_0     ----------------------------------AGCCGGGGGACC---------------------------------------------
Fomln_012_0     ------------------------------------------------------------------------------------------
Fomln_013_0     ----------------------------------AGCCGGGGGACC---------------------------------------------
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Marker #94

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Seaview [blocks=100 fontsize=7 A4] on Fri Mar 10 14:21:12 2017

                    1
Fobul_G14           --NNGTCTCATGGCCCTAC---CCGAGTAGTAGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Folyc_002           TAAAATACTATGGTATTGTATATAGAATAGTTGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTAGGTTTC-----GA-
Folyc_014           TAAAATACTATGGTATTGTATATAGAATAGTTGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTAGGTTTC-----GA-
Folyc_016           TAAAATACTATGGTATTGTATATAGAATAGTTGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTAGGTTTC-----GA-
Folyc_018           TAAAATACTATGGTATTGTATATAGAATAGTTGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTAGGTTTC-----GA-
Folyc_038           TAAAATACTATGGTATTGTATATAGAATAGTTGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTAGGTTTC-----GA-
Folyc_072           TAAAATACTATGGTATTGTATATAGAATAGTTGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTAGGTTTC-----GA-
Folyc_4287_0        TAAAATACTATGGTATTGTATATAGAATAGTTGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTAGGTTTC-----GA-
Folyc_004           -AAAATACTATGGTATTGTATATAGAATAGTTGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTAGGTTTC-----GA-
Folyc_026           -AAAATACTATGGTATTGTATATAGAATAGTTGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTAGGTTTC-----GA-
Folyc_029           -AAAATACTATGGTATTGTATATAGAATAGTTGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTAGGTTTC-----GA-
Folyc_069           -AAAATACTATGGTATTGTATATAGAATAGTTGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTAGGTTTC-----GA-
Folyc_073           -AAAATACTATGGTATTGTATATAGAATAGTTGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTAGGTTTC-----GA-
Folyc_074           -AAAATACTATGGTATTGTATATAGAATAGTTGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTAGGTTTC-----GA-
Folyc_4287_1        -AAAATACTATGGTATTGTATATAGAATAGTTGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTAGGTTTC-----GA-
Folyc_MN25          -AAAATACTATGGTATTGTATATAGAATAGTTGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTAGGTTTC-----GA-
Fophy_KOD886        -AAAATACTATGGTATTGTATATAGAATAGTTGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTAGGTTTC-----GA-
Fophy_KOD887        -AAAATACTATGGTATTGTATATAGAATAGTTGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTAGGTTTC-----GA-
Fophy_KOD888        TAAAATACTATGGTATTGTATATAGAATAGTTGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTAGGTTTC-----GA-
Focub_B2_0          -----TACTATGGTATTATATATAGAATAGTAGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Fomel_001           -----TACTATGGTATTATATATAGAATAGTGGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Foniv_013           -------------TCCTGTGTAGCCAATCGCATTTCTGTAAATAGTGTGTAGATAGATTCCGATTTCTCTAGCTCAGCACGTCCTGTGCTCCAGTAGGAG
Fovas_NRRL25433     -------------TCCTGTGTAGCCAATCGCATTTCTGTAAATAGTGTGTAGATAGATTCCGATTTCTCTAGCTCAGCACGTCCTGTGCTCCAGTAGGAG
Foniv_020           ----------------------------------------------TACACATACATACATA----------------CATA-------------------
Folag_001           ------------------------------------------------------------------------------------------------------
Folag_005           ------------------------------------------------------------------------------------------------------
Focuc_015           -GATGTAT----GTACTGTATATCGAATAGTGTAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Focuc_037           GGATGTAT----GTACTGTATATCGAATAGTGTAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Fomom_004           ------------------------------------------------------------------------------------------------------
Folil_39            ----ATACTATGGTATTATATACAGAATAGTGGAATCGGGAAAGATAAATAGAGACATATGGCCTACT---------CATATCTTGAGTTTC-----GAA
Forcu_016           --AAATACTATGGTATTATATATAGAATAGTGGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Forcu_024           --AAATACTATGGTATTATATATAGAATAGTGGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Forcu_031           --AAATACTATGGTATTATATATAGAATAGTGGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Fomln_001           -----TACTATGGTATTATATATAGAATAGTGGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Fomln_004           -----TACTATGGTATTATATATAGAATAGTGGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Fomln_006           -----TACTATGGTATTATATATAGAATAGTGGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Fomln_012           -----TACTATGGTATTATATATAGAATAGTGGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Fomln_016           -----TACTATGGTATTATATATAGAATAGTGGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Fomln_005           ----ATACTATGGTATTATATATAGAATAGTGGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Fomln_009           ----ATACTATGGTATTATATATAGAATAGTGGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Fomln_010           ----ATACTATGGTATTATATATAGAATAGTGGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Fomln_011           ----ATACTATGGTATTATATATAGAATAGTGGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
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Focuc_018           -----TACTATGGTATTATATATAGAATAGTGGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Focuc_021           -----TACTATGGTATTATATATAGAATAGTGGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Focuc_030           -----TACTATGGTATTATATATAGAATAGTGGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Foniv_002           -----TACTATGGTATTATATATAGAATAGTGGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Foniv_005           -----TACTATGGTATTATATATAGAATAGTGGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Foniv_015           -----TACTATGGTATTATATATAGAATAGTGGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Foniv_019           -----TACTATGGTATTATATATAGAATAGTGGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Foniv_021           -----TACTATGGTATTATATATAGAATAGTGGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Foniv_010           ----ATACTATGGTATTATATATAGAATAGTGGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Foniv_037           ----ATACTATGGTATTATATATAGAATAGTGGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Fopis_HDV247        ----ATACTATGGTATTATATATAGAATAGTGGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Focub_B2_1          ----ATACTACGGTATTATATATAGAATAGTGGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Focub_II5           ----ATACTACGGTATTATATATAGAATAGTGGAATCGGGAAAGATAAATAGAGATATATGGCCTACT---------CATATCTTGGGTTTC-----GAA
Focub_N2            ------------------------------------------------------------------------------------------------------
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Marker #13

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                 101
Fobul_G14        ATCCTTCATCATCGACAATACAACGAATTAATTACCCTATATCTTAACCATTTACTGGCCTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Folyc_002        ATCCTTCATCATCGACAGTACAACGAATTAATTACCCTATAACATAACA---TAACATACTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Folyc_014        ATCCTTCATCATCGACAGTACAACGAATTAATTACCCTATAACATAACA---TAACATACTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Folyc_016        ATCCTTCATCATCGACAGTACAACGAATTAATTACCCTATAACATAACA---TAACATACTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Folyc_018        ATCCTTCATCATCGACAGTACAACGAATTAATTACCCTATAACATAACA---TAACATACTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Folyc_038        ATCCTTCATCATCGACAGTACAACGAATTAATTACCCTATAACATAACA---TAACATACTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Folyc_072        ATCCTTCATCATCGACAGTACAACGAATTAATTACCCTATAACATAACA---TAACATACTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Folyc_4287_0     ATCCTTCATCATCGACAGTACAACGAATTAATTACCCTATAACATAACA---TAACATACTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Folyc_004        ATCCTTCATCATCGACAGTACAACGAATTAATTACCCTATAACATAACA---TAACATACTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Folyc_026        ATCCTTCATCATCGACAGTACAACGAATTAATTACCCTATAACATAACA---TAACATACTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Folyc_029        ATCCTTCATCATCGACAGTACAACGAATTAATTACCCTATAACATAACA---TAACATACTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Folyc_069        ATCCTTCATCATCGACAGTACAACGAATTAATTACCCTATAACATAACA---TAACATACTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Folyc_073        ATCCTTCATCATCGACAGTACAACGAATTAATTACCCTATAACATAACA---TAACATACTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Folyc_074        ATCCTTCATCATCGACAGTACAACGAATTAATTACCCTATAACATAACA---TAACATACTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Folyc_4287_1     ATCCTTCATCATCGACAGTACAACGAATTAATTACCCTATAACATAACA---TAACATACTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Folyc_MN25       ATCCTTCATCATCGACAGTACAACGAATTAATTACCCTATAACATAACA---TAACATACTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Fophy_KOD886     ATCCTTCATCATCGACAGTACAACGAATTAATTACCCTATAACATAACA---TAACATACTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Fophy_KOD887     ATCCTTCATCATCGACAGTACAACGAATTAATTACCCTATAACATAACA---TAACATACTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Fophy_KOD888     ATCCTTCATCATCGACAGTACAACGAATTAATTACCCTATAACATAACA---TAACATACTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Focub_B2_0       ATCCTTCATTATCGACAATACAACGAATTAATTACCTTATATCTTAACCATTTACTGGCCTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Fomel_001        ATCCTTCATCATCGACAATACAACGAATTAATTACCCTATATCTTAACCATATACTGGCATGCCCACCATGACTCGGTTTCATCTTATCCTTTTACCACT
Foniv_013        ACTTTTCGGGGCCTACGGCCCCCCGGACGAAAAATACACATACATACAT-----ACATACTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Fovas_NRRL25433  ACTTTTCGGGGCCTACGGCCCCCCGGACGAAAAATACACATACATACAT-----ACATACTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Foniv_020        ------------------------------------------------------------CTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Folag_001        ------------------------------------------------------------------------------------------------------
Folag_005        ------------------------------------------------------------------------------------------------------
Focuc_015        ATCCTTAATCGTCGACAATACAACGAATTAATTACCCTATATCTTAACAACTTACGGGCCTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Focuc_037        ATCCTTAATCGTCGACAATACAACGAATTAATTACCCTATATCTTAACAACTTACGGGCCTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Fomom_004        ------------------------------------------------------------------------GCCTCGGTTTCAGCTTATCCTTGTACCACT
Folil_39         ATCCTTCATCATCGACAATACAAAGAATTAATTACCCTATATCTTAACCATTTACTGGCCTGCCCACTATGACTCGGTTTCGTCTTATCCTTTTACCACT
Forcu_016        ATCCTTCA---TCGACAATACAACGAATTAATTACCCTATATCTTAACCATTTACTGGCCTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Forcu_024        ATCCTTCA---TCGACAATACAACGAATTAATTACCCTATATCTTAACCATTTACTGGCCTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Forcu_031        ATCCTTCA---TCGACAATACAACGAATTAATTACCCTATATCTTAACCATTTACTGGCCTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Fomln_001        ATCCTTCATCATCGACAATACAACGAATTAATTACCCTATATCTTAACCATTTACTGGCCTGCCCACTATGACTCGGTTTCATCTTATTCTTTTACCACT
Fomln_004        ATCCTTCATCATCGACAATACAACGAATTAATTACCCTATATCTTAACCATTTACTGGCCTGCCCACTATGACTCGGTTTCATCTTATTCTTTTACCACT
Fomln_006        ATCCTTCATCATCGACAATACAACGAATTAATTACCCTATATCTTAACCATTTACTGGCCTGCCCACTATGACTCGGTTTCATCTTATTCTTTTACCACT
Fomln_012        ATCCTTCATCATCGACAATACAACGAATTAATTACCCTATATCTTAACCATTTACTGGCCTGCCCACTATGACTCGGTTTCATCTTATTCTTTTACCACT
Fomln_016        ATCCTTCATCATCGACAATACAACGAATTAATTACCCTATATCTTAACCATTTACTGGCCTGCCCACTATGACTCGGTTTCATCTTATTCTTTTACCACT
Fomln_005        ATCCTTCATCATCGACAATACAACGAATTAATTACCCTATATCTTAACCATTTACTGGCCTGCCCACTATGACTCGGTTTCATCTTATTCTTTTACCACT
Fomln_009        ATCCTTCATCATCGACAATACAACGAATTAATTACCCTATATCTTAACCATTTACTGGCCTGCCCACTATGACTCGGTTTCATCTTATTCTTTTACCACT
Fomln_010        ATCCTTCATCATCGACAATACAACGAATTAATTACCCTATATCTTAACCATTTACTGGCCTGCCCACTATGACTCGGTTTCATCTTATTCTTTTACCACT
Fomln_011        ATCCTTCATCATCGACAATACAACGAATTAATTACCCTATATCTTAACCATTTACTGGCCTGCCCACTATGACTCGGTTTCATCTTATTCTTTTACCACT
Fomln_013        ATCCTTCATCATCGACAATACAACGAATTAATTACCCTATATCTTAACCATTTACTGGCCTGCCCACTATGACTCGGTTTCATCTTATTCTTTTACCACT
Focuc_018        ATCCTTCATCATCGACAATACAACGAATTAATTACCCTATATCTTAACCATTTACTGGCCTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Focuc_021        ATCCTTCATCATCGACAATACAACGAATTAATTACCCTATATCTTAACCATTTACTGGCCTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Focuc_030        ATCCTTCATCATCGACAATACAACGAATTAATTACCCTATATCTTAACCATTTACTGGCCTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Foniv_002        ATCCTTCATCATCGACAATACAACGAATTAATTACCCTATATCTTAACCATTTACTGGCCTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Foniv_005        ATCCTTCATCATCGACAATACAACGAATTAATTACCCTATATCTTAACCATTTACTGGCCTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Foniv_015        ATCCTTCATCATCGACAATACAACGAATTAATTACCCTATATCTTAACCATTTACTGGCCTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Foniv_019        ATCCTTCATCATCGACAATACAACGAATTAATTACCCTATATCTTAACCATTTACTGGCCTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Foniv_021        ATCCTTCATCATCGACAATACAACGAATTAATTACCCTATATCTTAACCATTTACTGGCCTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Foniv_010        ATCCTTCATCATCGACAATACAACGAATTAATTACCCTATATCTTAACCATTTACTGGCCTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Foniv_037        ATCCTTCATCATCGACAATACAACGAATTAATTACCCTATATCTTAACCATTTACTGGCCTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Fopis_HDV247     ATCCTTCATCATCGACAATACAACGAATTAATTACCCATTATCTTAACCATTTACTGGCCTGCCCACTATGACTCGGTTTCATCTTATCCTTTTACCACT
Focub_B2_1       ATCCTTCATCATCGACAATACAACGAATCAATTACCCTATATCTTAACCATTCACTGGCCTGCCCACAATGACTCGGTTTCACCTTATCCTTTTACCATT
Focub_II5        ATCCTTCATCATCGACAATACAACGAATCAATTACCCTATATCTTAACCATTCACTGGCCTGCCCACAATGACTCGGTTTCACCTTATCCTTTTACCATT
Focub_N2         ---------------------------------------------------------TGCCCACAATGACTCGGTTTCACCTTATCCTTTTACCATT
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Marker #13

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                 201
Fobul_G14        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Folyc_002        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Folyc_014        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Folyc_016        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Folyc_018        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Folyc_038        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Folyc_072        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Folyc_4287_0     ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Folyc_004        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Folyc_026        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Folyc_029        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Folyc_069        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Folyc_073        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Folyc_074        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Folyc_4287_1     ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Folyc_MN25       ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Fophy_KOD886     ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Fophy_KOD887     ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Fophy_KOD888     ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Focub_B2_0       ACTTTTCTCCTGGTTCTCCTATTGCTTTGGGCAGT------TGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGTCTTC
Fomel_001        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCCGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Foniv_013        ACTTTCCTCTTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Fovas_NRRL25433  ACTTTCCTCTTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Foniv_020        ACTTTCCTCTTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Folag_001        ---------------------------------------------------------ATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Folag_005        ---------------------------------------------------------ATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Focuc_015        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Focuc_037        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Fomom_004        ACTTTTCTCCTGGTTCTCCTATGGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGACCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Folil_39         ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Forcu_016        ACTTGTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Forcu_024        ACTTGTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Forcu_031        ACTTGTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Fomln_001        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Fomln_004        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Fomln_006        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Fomln_012        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Fomln_016        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Fomln_005        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Fomln_009        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Fomln_010        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Fomln_011        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Fomln_013        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Focuc_018        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Focuc_021        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Focuc_030        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Foniv_002        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Foniv_005        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Foniv_015        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Foniv_019        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Foniv_021        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Foniv_010        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Foniv_037        ACTTTTCTCCTGGTTCTCCTATTGCTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Fopis_HDV247     ACTTTTCTCCTGGTTCTCCTATTGCTTAGGAGAGTTAGAGGTTTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Focub_B2_1       ACTTTTCTCCTGGTTCTCCTATTGTTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Focub_II5        ACTTTTCTCCTGGTTCTCCTATTGTTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
Focub_N2         ACTTTTCTCCTGGTTCTCCTATTGTTTAGGGGAGTTAGAGGTGTCTGATTTGTCTGATCAGCCTCCTAGCGTCGAAAATACTTATCGGGATCAGGCCTTC
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Marker #13

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                 301
Fobul_G14        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAAACCATACGGAACGGGCCCTAGTCTCGGAAGCAGCACTACAGAGGCGTC
Folyc_002        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCGAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAAGCGTC
Folyc_014        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCGAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAAGCGTC
Folyc_016        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCGAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAAGCGTC
Folyc_018        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCGAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAAGCGTC
Folyc_038        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCGAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAAGCGTC
Folyc_072        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCGAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAAGCGTC
Folyc_4287_0     AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCGAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAAGCGTC
Folyc_004        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCGAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAAGCGTC
Folyc_026        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCGAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAAGCGTC
Folyc_029        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCGAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAAGCGTC
Folyc_069        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCGAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAAGCGTC
Folyc_073        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCGAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAAGCGTC
Folyc_074        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCGAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAAGCGTC
Folyc_4287_1     AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCGAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAAGCGTC
Folyc_MN25       AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCGAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAAGCGTC
Fophy_KOD886     AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAAGCGTC
Fophy_KOD887     AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAAGCGTC
Fophy_KOD888     AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAAGCGTC
Focub_B2_0       AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTTGGTAGAGCTAACAAACCATACGAAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAAGCGTC
Fomel_001        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAGCGGGCCCTAGTCTCGAAAGCAGCAGTACAGAGGCGTC
Foniv_013        AACGAAGAGGAGCTGCTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCATTACAGAGGCGTC
Fovas_NRRL25433  AACGAAGAGGAGCTGCTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCATTACAGAGGCGTC
Foniv_020        AACGAAGAGGAGCTGCTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCATTACAGAGGCGTC
Folag_001        AACGAAGAGGAGCTGCTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCATTACAGAGGCGTC
Folag_005        AACGAAGAGGAGCTGCTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCATTACAGAGGCGTC
Focuc_015        AACGAAGAGCAGCTGCTGAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCATTACAGAGGCGTC
Focuc_037        AACGAAGAGCAGCTGCTGAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCATTACAGAGGCGTC
Fomom_004        AACGAAGAGGAGCTGCTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCATTACAGAGGCGTC
Folil_39         AACGAAGAGGAGCTACTCAAAGTCGTGGACGACCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCACTACAGAGGCGTC
Forcu_016        AACGAAGATGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAAAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAAGCGTC
Forcu_024        AACGAAGATGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAAAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAAGCGTC
Forcu_031        AACGAAGATGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAAAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAAGCGTC
Fomln_001        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAGGCGTC
Fomln_004        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAGGCGTC
Fomln_006        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAGGCGTC
Fomln_012        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAGGCGTC
Fomln_016        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAGGCGTC
Fomln_005        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAGGCGTC
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Fomln_010        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAGGCGTC
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Fomln_013        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAGGCGTC
Focuc_018        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAGGCGTC
Focuc_021        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAGGCGTC
Focuc_030        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAGGCGTC
Foniv_002        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAGGCGTC
Foniv_005        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAGGCGTC
Foniv_015        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAGGCGTC
Foniv_019        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAGGCGTC
Foniv_021        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAGGCGTC
Foniv_010        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAGGCGTC
Foniv_037        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAGAGCTAACAGAGCATACGGAACGGGCCCTAGTCTCGGAAGCAGCAGTACAGAGGCGTC
Fopis_HDV247     AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAAAGCTAACAAACCATACGGAACGGACCCTAGTCTCGGAAGCAGCACTACAGAGGCGTC
Focub_B2_1       AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAAAGCTAACAAACCATACGGAACGGGCCCTAGTCTCGGAAGCAGCACTACAGAGGCGTC
Focub_II5        AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAAAGCTAACAAACCATACGGAACGGGCCCTAGTCTCGGAAGCAGCACTACAGAGGCGTC
Focub_N2         AACGAAGAGGAGCTACTCAAAGTCGTGGACGAGCTCTCGGTAAAGCTAACAAACCATACGGAACGGGCCCTAGTCTCGGAAGCAGCACTACAGAGGCGTC
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Marker #13

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                401
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Folyc_014       AAGACGACGAACACCCTAACGGACCTTGCCCGAGGGGAGGACGTCTTTATGTTGATTCAGATGAAGATAGTTCATGCAACGCAAAATGGGGAACTCAAAC
Folyc_016       AAGACGACGAACACCCTAACGGACCTTGCCCGAGGGGAGGACGTCTTTATGTTGATTCAGATGAAGATAGTTCATGCAACGCAAAATGGGGAACTCAAAC
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Folyc_072       AAGACGACGAACACCCTAACGGACCTTGCCCGAGGGGAGGACGTCTTTATGTTGATTCAGATGAAGATAGTTCATGCAACGCAAAATGGGGAACTCAAAC
Folyc_4287_0    AAGACGACGAACACCCTAACGGACCTTGCCCGAGGGGAGGACGTCTTTATGTTGATTCAGATGAAGATAGTTCATGCAACGCAAAATGGGGAACTCAAAC
Folyc_004       AAGACGACGAACACCCTAACGGACCTTGCCCGAGGGGAGGACGTCTTTATGTTGATTCAGATGAAGATAGTTCATGCAACGCAAAATGGGGAACTCAAAC
Folyc_026       AAGACGACGAACACCCTAACGGACCTTGCCCGAGGGGAGGACGTCTTTATGTTGATTCAGATGAAGATAGTTCATGCAACGCAAAATGGGGAACTCAAAC
Folyc_029       AAGACGACGAACACCCTAACGGACCTTGCCCGAGGGGAGGACGTCTTTATGTTGATTCAGATGAAGATAGTTCATGCAACGCAAAATGGGGAACTCAAAC
Folyc_069       AAGACGACGAACACCCTAACGGACCTTGCCCGAGGGGAGGACGTCTTTATGTTGATTCAGATGAAGATAGTTCATGCAACGCAAAATGGGGAACTCAAAC
Folyc_073       AAGACGACGAACACCCTAACGGACCTTGCCCGAGGGGAGGACGTCTTTATGTTGATTCAGATGAAGATAGTTCATGCAACGCAAAATGGGGAACTCAAAC
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Folyc_4287_1    AAGACGACGAACACCCTAACGGACCTTGCCCGAGGGGAGGACGTCTTTATGTTGATTCAGATGAAGATAGTTCATGCAACGCAAAATGGGGAACTCAAAC
Folyc_MN25      AAGACGACGAACACCCTAACGGACCTTGCCCGAGGGGAGGACGTCTTTATGTTGATTCAGATGAAGATAGTTCATGCAACGCAAAATGGGGAACTCAAAC
Fophy_KOD886    AAGACGACGAACACCCTAACGGACCTTGCCCGAGGGGAGGACGTCTTTATGTTGATTCAGATGAAGATAGTTCATGCAACGCAAAATGGGGAATTCAAAC
Fophy_KOD887    AAGACGACGAACACCCTAACGGACCTTGCCCGAGGGGAGGACGTCTTTATGTTGATTCAGATGAAGATAGTTCATGCAACGCAAAATGGGGAATTCAAAC
Fophy_KOD888    AAGACGACGAACACCCTAACGGACCTTGCCCGAGGGGAGGACGTCTTTATGTTGATTCAGATGAAGATAGTTCATGCAACGCAAAATGGGGAATTCAAAC
Focub_B2_0      AAGACGACGAACACCCTAACGGACCTTGCCCGAGGGGAGGACGTCTTTATGTTGATTCAGATGAAGATAGGTCATGCAACGCAAAATGGGGATTTCAAAC
Fomel_001       AAGACGACCAACACCCTAACGGGCCTTGCCCGAGGGGAGGACGTTTTTATGTTGATTCAGATGAAGATACGTCATGCAACGCAAAATGGGGAATTCAAAC
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Focuc_015       AAGACGACGAACACCCTAACGGACCTTGCCCGAGGGGAGGACGTCTTTATGTTGATTCAGATGAAGATAGGTCATGCAACGCAAAATGGGGAATTCAAAC
Focuc_037       AAGACGACGAACACCCTAACGGACCTTGCCCGAGGGGAGGACGTCTTTATGTTGATTCAGATGAAGATAGGTCATGCAACGCAAAATGGGGAATTCAAAC
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Folil_39        AAGACGACGAACACCCTAACGGACCTTGCCCGAGGGGAGGACGTCTTTATGTTGATTCAGATGAAGATAGGTCATGCAACGCAAAATGGGGAATTCAAAC
Forcu_016       AAGACGACGAATACCCTAACGGACCTTGCCCGAGGGGAGGACGTCTTTATGTTGATTCAGATGAAGATAGGTCATGCAACGCAAAATGGGGAATTCAAAC
Forcu_024       AAGACGACGAATACCCTAACGGACCTTGCCCGAGGGGAGGACGTCTTTATGTTGATTCAGATGAAGATAGGTCATGCAACGCAAAATGGGGAATTCAAAC
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Focuc_018       AAAACGACGAATACCCTAACGGACCTTGCCCGAGGGGAGGACGTCTTTATGTTGATTCAGATGAAGATAGGTCATGCAACGCAAAATGGGGAATTCAAAC
Focuc_021       AAAACGACGAATACCCTAACGGACCTTGCCCGAGGGGAGGACGTCTTTATGTTGATTCAGATGAAGATAGGTCATGCAACGCAAAATGGGGAATTCAAAC
Focuc_030       AAAACGACGAATACCCTAACGGACCTTGCCCGAGGGGAGGACGTCTTTATGTTGATTCAGATGAAGATAGGTCATGCAACGCAAAATGGGGAATTCAAAC
Foniv_002       AAAACGACGAATACCCTAACGGACCTTGCCCGAGGGGAGGACGTCTTTATGTTGATTCAGATGAAGATAGGTCATGCAACGCAAAATGGGGAATTCAAAC
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Foniv_010       AAAACGACGAATACCCTAACGGACCTTGCCCGAGGGGAGGACGTCTTTATGTTGATTCAGATGAAGATAGGTCATGCAACGCAAAATGGGGAATTCAAAC
Foniv_037       AAAACGACGAATACCCTAACGGACCTTGCCCGAGGGGAGGACGTCTTTATGTTGATTCAGATGAAGATAGGTCATGCAACGCAAAATGGGGAATTCAAAC
Fopis_HDV247    AAAACGGCCAATACCCTAACGGAGTTTGCCCGAGGGGAGGACGTTTTTATTTTGATATAGATGAAGATACGTCATGCAACGCAAAATGGGGAATTGCAAC
Focub_B2_1      AAAACGACCAATACCCTAACGGAGTTTGCCCGAGTGGAGGACGTTTTTATCTTGATGTAGATGAAGATAGGTCATGCAACAGTAAATGGGGAATTGCAAC
Focub_II5       AAAACGACCAATACCCTAACGGAGTTTGCCCGAGTGGAGGACGTTTTTATCTTGATGTAGATGAAGATAGGTCATGCAACAGTAAATGGGGAATTGCAAC
Focub_N2        AAAACGACCAATACCCTAACGGAGTTTGCCCGAGTGGAGGACGTTTTTATCTTGATGTAGATGAAGATAGGTCATGCAACAGTAAATGGGGAATTGCAAC
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Folyc_002        GCACAACGATGTTAAAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCACG
Folyc_014        GCACAACGATGTTAAAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCACG
Folyc_016        GCACAACGATGTTAAAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCACG
Folyc_018        GCACAACGATGTTAAAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCACG
Folyc_038        GCACAACGATGTTAAAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCACG
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Folyc_4287_0     GCACAACGATGTTAAAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCACG
Folyc_004        GCACAACGATGTTAAAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCACG
Folyc_026        GCACAACGATGTTAAAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCACG
Folyc_029        GCACAACGATGTTAAAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCACG
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Folyc_073        GCACAACGATGTTAAAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCACG
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Folyc_4287_1     GCACAACGATGTTAAAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCACG
Folyc_MN25       GCACAACGATGTTAAAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCACG
Fophy_KOD886     GCACAACGATGTTAAAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCACG
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Fophy_KOD888     GCACAACGATGTTAAAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCACG
Focub_B2_0       GGACAACGATGTTAGAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCACG
Fomel_001        GGACAACGATGTTAGAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCACG
Foniv_013        GCACGACGATGTTAGAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCACG
Fovas_NRRL25433  GCACGACGATGTTAGAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCACG
Foniv_020        GCACGACGATGTTAGAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCACG
Folag_001        GCACGACGATGTTAGAACATTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTCGCTGCTATACAATGCACCCCATGACG
Folag_005        GCACGACGATGTTAGAACATTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTCGCTGCTATACAATGCACCCCATGACG
Focuc_015        GCACGACGATGTTAGAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCACG
Focuc_037        GCACGACGATGTTAGAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCACG
Fomom_004        GCACGACGATGTTAGAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCACG
Folil_39         GGACAACGATGTTAGAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAACGCACCCCATCACG
Forcu_016        GCACAACGATGTTAGAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCACG
Forcu_024        GCACAACGATGTTAGAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCACG
Forcu_031        GCACAACGATGTTAGAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCACG
Fomln_001        GCACGACGATGCTAGAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCGCG
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Fomln_005        GCACGACGATGCTAGAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCGCG
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Fomln_011        GCACGACGATGCTAGAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCGCG
Fomln_013        GCACGACGATGCTAGAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCGCG
Focuc_018        GCACGACGATGCTAGAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCGCG
Focuc_021        GCACGACGATGCTAGAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCGCG
Focuc_030        GCACGACGATGCTAGAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCGCG
Foniv_002        GCACGACGATGCTAGAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCGCG
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Foniv_010        GCACGACGATGCTAGAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCGCG
Foniv_037        GCACGACGATGCTAGAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTATACAATGCACCCCATCGCG
Fopis_HDV247     GGCCCACGAAACTAGAACCTTTGGCTCAACTGGTTCGGTTTGCGCAGGCCCGTTCAGGCGGATCACTTGCGCTTGCTGCTTTACAACGTACCCCATCACG
Focub_B2_1       TCCCGACGAAACTAGAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTTTACAACGCACCCCATCACG
Focub_II5        TCCCGACGAAACTAGAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTTTACAACGCACCCCATCACG
Focub_N2         TCCCGACGAAACTAGAACGTTTGGCTCAACTGGTTCGGTTTGCGCAGGCACGTTCAGGCGGATCACTTGCGCTTGCTGCTTTACAACGCACCCCATCACG
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                601
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Folyc_014       GATAATAATGTAAGGGGGAATAACTATCTTTTAAGATGCCTTATTAGTTACTAACTCAAACCCTACTAGGTGCCAAGAATGGACGGAATATATTGCCCAA
Folyc_016       GATAATAATGTAAGGGGGAATAACTATCTTTTAAGATGCCTTATTAGTTACTAACTCAAACCCTACTAGGTGCCAAGAATGGACGGAATATATTGCCCAA
Folyc_018       GATAATAATGTAAGGGGGAATAACTATCTTTTAAGATGCCTTATTAGTTACTAACTCAAACCCTACTAGGTGCCAAGAATGGACGGAATATATTGCCCAA
Folyc_038       GATAATAATGTAAGGGGGAATAACTATCTTTTAAGATGCCTTATTAGTTACTAACTCAAACCCTACTAGGTGCCAAGAATGGACGGAATATATTGCCCAA
Folyc_072       GATAATAATGTAAGGGGGAATAACTATCTTTTAAGATGCCTTATTAGTTACTAACTCAAACCCTACTAGGTGCCAAGAATGGACGGAATATATTGCCCAA
Folyc_4287_0    GATAATAATGTAAGGGGGAATAACTATCTTTTAAGATGCCTTATTAGTTACTAACTCAAACCCTACTAGGTGCCAAGAATGGACGGAATATATTGCCCAA
Folyc_004       GATAATAATGTAAGGGGGAATAACTATCTTTTAAGATGCCTTATTAGTTACTAACTCAAACCCTACTAGGTGCCAAGAATGGACGGAATATATTGCCCAA
Folyc_026       GATAATAATGTAAGGGGGAATAACTATCTTTTAAGATGCCTTATTAGTTACTAACTCAAACCCTACTAGGTGCCAAGAATGGACGGAATATATTGCCCAA
Folyc_029       GATAATAATGTAAGGGGGAATAACTATCTTTTAAGATGCCTTATTAGTTACTAACTCAAACCCTACTAGGTGCCAAGAATGGACGGAATATATTGCCCAA
Folyc_069       GATAATAATGTAAGGGGGAATAACTATCTTTTAAGATGCCTTATTAGTTACTAACTCAAACCCTACTAGGTGCCAAGAATGGACGGAATATATTGCCCAA
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Marker #13

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Marker #13

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Foniv_010        GATCGCTACCAAAAAAGTCGTTAAGGAGTACTGTACTCCTAAGCGGTGGCTCCCATCAACTGGCAAGGGCAAAAACGCAAAATTCCACGCATGGGCATAC
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Focub_II5        CATCGCTACCAAAAAAGTCGTTAAAGAGTACTGTACTCCTAAGCGGTGGCTCCCATCAACTGGCAAGGGCAAAAACGCAAAATTCCACGCCTGGGCATAC
Focub_N2         CATCGCTACCAAAAAAGTCGTTAAAGAGTACTGTACTCCTAAGCGGTGGCTCCCATCAACTGGCAAGGGCAAAAACGCAAAATTCCACGCCTGGGCATAC
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Marker #13

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                901
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Folyc_018       AATTACAGCACGGGACAGCTTACAACACTCAAGTGGATGTATTTGAAGTTGGATGGCCAATATGTTAAGTCAGCGCCAGGGATTTCGGAATGGGGACTAA
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Folyc_4287_0    AATTACAGCACGGGACAGCTTACAACACTCAAGTGGATGTATTTGAAGTTGGATGGCCAATATGTTAAGTCAGCGCCAGGGATTTCGGAATGGGGACTAA
Folyc_004       AATTACAGCACGGGACAGCTTACAACACTCAAGTGGATGTATTTGAAGTTGGATGGCCAATATGTTAAGTCAGCGCCAGGGATTTCGGAATGGGGACTAA
Folyc_026       AATTACAGCACGGGACAGCTTACAACACTCAAGTGGATGTATTTGAAGTTGGATGGCCAATATGTTAAGTCAGCGCCAGGGATTTCGGAATGGGGACTAA
Folyc_029       AATTACAGCACGGGACAGCTTACAACACTCAAGTGGATGTATTTGAAGTTGGATGGCCAATATGTTAAGTCAGCGCCAGGGATTTCGGAATGGGGACTAA
Folyc_069       AATTACAGCACGGGACAGCTTACAACACTCAAGTGGATGTATTTGAAGTTGGATGGCCAATATGTTAAGTCAGCGCCAGGGATTTCGGAATGGGGACTAA
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Folyc_4287_1    AATTACAGCACGGGACAGCTTACAACACTCAAGTGGATGTATTTGAAGTTGGATGGCCAATATGTTAAGTCAGCGCCAGGGATTTCGGAATGGGGACTAA
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Fophy_KOD886    AATTACAGCACGGGACAGCTTACAACACTCAAGTGGATGTATTTGAAGTTGGATGGCCAATATGTTAAGTCAGCGCCAGGGATTTCGGAATGGGGACTAA
Fophy_KOD887    AATTACAGCACGGGACAGCTTACAACACTCAAGTGGATGTATTTGAAGTTGGATGGCCAATATGTTAAGTCAGCGCCAGGGATTTCGGAATGGGGACTAA
Fophy_KOD888    AATTACAGCACGGGACAGCTTACAACACTCAAGTGGATGTATTTGAAGTTGGATGGCCAATATGTTAAGTCAGCGCCAGGGATTTCGGAATGGGGACTAA
Focub_B2_0      AATTACAGCACGGGACAGCTTACAAAACTCAAGTGGATGTATTTGAAGTTGGATGGTCAATATGCTAAGTCAGCGCCAGGGATTTCGGAATGGGGACTCA
Fomel_001       AATTATAGCACGGGACAGCTTACGAAACTCAAGTGGATGTATTTGAAGTTGGATGGTGAATATGCTAAGTCAGCGCCAGGGATTTCGGAATGGGGACTCA
Foniv_013       AATTACAGCACGGGACAGCTTACAAAACTCAAGTGGATGTATTTGAAGTTGGATGGTCAATATGCTAAGTCAGCGCCAGGGATTTCGGAATGGGGGCTCA
Fovas_NRRL25433 AATTACAGCACGGGACAGCTTACAAAACTCAAGTGGATGTATTTGAAGTTGGATGGTCAATATGCTAAGTCAGCGCCAGGGATTTCGGAATGGGGGCTCA
Foniv_020       AATTACAGCACGGGACAGCTTACAAAACTCAAGTGGATGTATTTGAAGTTGGATGGTCAATATGCTAAGTCAGCGCCAGGGATTTCGGAATGGGGGCTCA
Folag_001       AATTACAGCACGGGACAGCTTACAAAACTCAAGTGGATGTATTTGAAGTTGGATGGTCAATATGCTAAGTCAGCGTCAGGGATTTCGGAATGGGGACTCA
Folag_005       AATTACAGCACGGGACAGCTTACAAAACTCAAGTGGATGTATTTGAAGTTGGATGGTCAATATGCTAAGTCAGCGCCAGGGATTTCGGAATGGGGCTCA
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Fomom_004       AATTACAGCACGGGACAGCTTACAAAACTCAAGTGGATGTATTTGAAGTTGGATGGTCAATATGCTAAGTCAGCGCCAGGGATTTCGGAATGGGGACTCA
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Focuc_018       AATTACAGCACGGGACAGCTTACAAAACTCAAGTGGATGTATTTGAAGTTGGATGGTCAATATGCTAAGTCAGCGCCAGGGATTTCGGAATGGGGACTCA
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Focuc_030       AATTACAGCACGGGACAGCTTACAAAACTCAAGTGGATGTATTTGAAGTTGGATGGTCAATATGCTAAGTCAGCGCCAGGGATTTCGGAATGGGGACTCA
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Focub_B2_1      AATTACAGCACGGGACAGTTTACAAAACTCAAGTGGATGTATTTGAAGTTGGATGGTCAATATGCTAAGTCAGCGCCAGGGATTTCGGAATGGGGACTCA
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Focub_N2        AATTACAGCACGGGACAGTTTACAAAACTCAAGTGGATGTATTTGAAGTTGGATGGTCAATATGCTAAGTCAGCGCCAGGGATTTCGGAATGGGGACTCA
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Marker #13

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                1001
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Focuc_021       CTTACAGTGTCAATGAGCATAACGCCATTGAATTATGTGGCTACCCCTCTGACCATATGCAAAGAAATTCCATCGATGCCGAGTTACAGTGGGAGGTTAC
Focuc_030       CTTACAGTGTCAATGAGCATAACGCCATTGAATTATGTGGCTACCCCTCTGACCATATGCAAAGAAATTCCATCGATGCCGAGTTACAGTGGGAGGTTAC
Foniv_002       CTTACAGTGTCAATGAGCATAACGCCATTGAATTATGTGGCTACCCCTCTGACGATATGCAAAGAAATTCCATCGATGCCGAGTTACAGTGGGAGGTTAC
Foniv_005       CTTACAGTGTCAATGAGCATAACGCCATTGAATTATGTGGCTACCCCTCTGACGATATGCAAAGAAATTCCATCGATGCCGAGTTACAGTGGGAGGTTAC
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Fopis_HDV247    CCTACAGTGTCAATGAGCATAACGCCATTGAATTATGTGGCTACCCCTCTGACGATATGCAAAAAAATTCCATCGATGCCGAGTTACAGTGGGAGGTTAC
Focub_B2_1      CCTACAGTGTCAATGAGCATAACGCCATTGAATTATGTGGCTACCCCTCTGACGATATGCAAAAGAATTCCATCGATGCCGAGTTACAGTGGGAGGTTAC
Focub_II5       CCTACAGTGTCAATGAGCATAACGCCATTGAATTATGTGGCTACCCCTCTGACGATATGCAAAAGAATTCCATCGATGCCGAGTTACAGTGGGAGGTTAC
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Marker #13

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                1101
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Folyc_014       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Folyc_016       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Folyc_018       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Folyc_038       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Folyc_072       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Folyc_4287_0    TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Folyc_004       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Folyc_026       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Folyc_029       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Folyc_069       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Folyc_073       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
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Folyc_4287_1    TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
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Fophy_KOD886    TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Fophy_KOD887    TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Fophy_KOD888    TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Focub_B2_0      TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAATTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTCC
Fomel_001       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
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Fovas_NRRL25433 TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATGTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Foniv_020       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATGTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Folag_001       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATGTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Folag_005       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATGTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Focuc_015       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATGTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Focuc_037       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATGTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Fomom_004       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATGTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Folil_39        TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAG
Forcu_016       TGTACAGTAAGGAGCTGAGTTACGGGTTTAATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
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Forcu_031       TGTACAGTAAGGAGCTGAGTTACGGGTTTAATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Fomln_001       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Fomln_004       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Fomln_006       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Fomln_012       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Fomln_016       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Fomln_005       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Fomln_009       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Fomln_010       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Fomln_011       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Fomln_013       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Focuc_018       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Focuc_021       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Focuc_030       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Foniv_002       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Foniv_005       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Foniv_015       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Foniv_019       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
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Foniv_010       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Foniv_037       TGTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Fopis_HDV247    GTTACAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Focub_B2_1      TTTAGAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Focub_II5       TTTAGAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
Focub_N2        TTTAGAGTAAGGAGCTGAGTTACGGGTTTGATTTTCCGCCTAGAACACAGATTTAGTTAGCTACTAGACGCCAGAAAATAATCCTGTTAAAAGCTCTTAC
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Marker #13

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Folyc_002       TCAGGTGATTCGGAATTACTTTTGTCAACGAACTCAAGACCCTTCAAGGGTGGTTTGAA------------------------
Folyc_014       TCAGGTGATTCGGAATTACTTTTGTCAACGAACTCAAGACCCTTCAAGGGTGGTTTGAA------------------------
Folyc_016       TCAGGTGATTCGGAATTACTTTTGTCAACGAACTCAAGACCCTTCAAGGGTGGTTTGAA------------------------
Folyc_018       TCAGGTGATTCGGAATTACTTTTGTCAACGAACTCAAGACCCTTCAAGGGTGGTTTGAA------------------------
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Folyc_072       TCAGGTGATTCGGAATTACTTTTGTCAACGAACTCAAGACCCTTCAAGGGTGGTTTGAA------------------------
Folyc_4287_0    TCAGGTGATTCGGAATTACTTTTGTCAACGAACTCAAGACCCTTCAAGGGTGGTTTGAA------------------------
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Folyc_029       TCAGGTGATTCGGAATTACTTTTGTCAACGAACTCAAGACCCTTCAAGGGTGGTTTGAAC-----------------------
Folyc_069       TCAGGTGATTCGGAATTACTTTTGTCAACGAACTCAAGACCCTTCAAGGGTGGTTTGAAC-----------------------
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Folyc_MN25      TCAGGTGATTCGGAATTACTTTTGTCAACGAACTCAAGACCCTTCAAGGGTGGTTTGAAC-----------------------
Fophy_KOD886    TCAGGTGATTCGGAATTACTTTTGTCAACGAACTCAAGACCCTTCAAGGGTGGTTTGAAC-----------------------
Fophy_KOD887    TCAGGTGATTCGGAATTACTTTTGTCAACGAACTCAAGACCCTTCAAGGGTGGTTTGAAC-----------------------
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Focub_B2_0      TCAAGTGATTCGGAATTAATTTCGTCGACGAACTCAAGACCCTTCAAGGGTGGTTTGAAC-----------------------
Fomel_001       TCAGGTGATTCGGAATTACTTTCGTCGACGAACTCAAGACCCTTCAAGGGTGGTTTGAAC-----------------------
Foniv_013       TCAGGTGATTCGGAATTACTTTCGTCGACGAACCCAAGACCCTTCAAGGGTGGTTTGAA------------------------
Fovas_NRRL25433 TCAGGTGATTCGGAATTACTTTCGTCGACGAACCCAAGACCCTTCAAGGGTGGTTTGAA------------------------
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Folag_001       TCAGGTGATTCGGAATTACTTTCGTCGACGAACCCAAGACCCTTC--------------------------------------
Folag_005       TCAGGTGATTCGGAATTACTTTCGTCGACGAACCCAAGACCCTTCCAGGGTGGTTTGAAC-----------------------
Focuc_015       TCAGGTGATTCGGAATTACTTTCGTCGACGAACCCAAGACCCTTCAAGGGTGGTTTGAAC-----------------------
Focuc_037       TCAGGTGATTCGGAATTACTTTCGTCGACGAACCCAAGACCCTTCAAGGGTGGTTTGAA------------------------
Fomom_004       TCAGGTGATTCGGAATTACTTTCGTCGACGAACCCAAGACCCTTCAAGGGTGGTTTGAA------------------------
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Forcu_016       TCAGGTGATTCGGAATTACTTTCGTCGACGAACTCAAGACCCTTCAAGGGTGGTTTGAAC-----------------------
Forcu_024       TCAGGTGATTCGGAATTACTTTCGTCGACGAACTCAAGACCCTTCAAGGGTGGTTTGAAC-----------------------
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Fomln_011       TCAGGTGATTCGGAATTACTTTCGTCGACGAACTCAAGACCCTTCAAGGGTGGTTTGAA------------------------
Fomln_013       TCAGGTGATTCGGAATTACTTTCGTCGACGAACTCAAGACCCTTCAAGGGTGGTTTGAA------------------------
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Focuc_021       TCAGGTGATTCGGAATTACTTTCGTCGACGAACTCAAGACCCTTCAAGGGTGGTTTGAAC-----------------------
Focuc_030       TCAGGTGATTCGGAATTACTTTCGTCGACGAACTCAAGACCCTTCAAGGGTGGTTTGAAC-----------------------
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Foniv_005       TCAGGTGATTCGGAATTACTTTCGTCGACGAACTCAAGACCCTTCAAGGGTGGTTTGAAC-----------------------
Foniv_015       TCAGGTGATTCGGAATTACTTTCGTCGACGAACTCAAGACCCTTCAAGGGTGGTTTGAAC-----------------------
Foniv_019       TCAGGTGATTCGGAATTACTTTCGTCGACGAACTCAAGACCCTTCAAGGGTGGTTTGAAC-----------------------
Foniv_021       TCAGGTGATTCGGAATTACTTTCGTCGACGAACTCAAGACCCTTCAAGGGTGGTTTGAAC-----------------------
Foniv_010       TCAGGTGATTCGGAATTACTTTCGTCGACGAACTCAAGACCCTTCAAGGGTGGTTTGAA------------------------
Foniv_037       TCAGGTGATTCGGAATTACTTTCGTCGACGAACTCAAGACCCTTCAAGGGTGGTTTGAA------------------------
Fopis_HDV247    TCAGGTGATTCGGAATTACTTTCGTCGACGAACTCAAGACCCTTCAAGGGTGGTTTGAA------------------------
Focub_B2_1      TCA---GATTCGGAATTACTTTCGTCGACGAACTCAAGACCCTTCAAGGGTGGTTTGAACGC----------------------
Focub_II5       TCA---GATTCGGAATTACTTTCGTCGACGAACTCAAGACCCTTCAAGGGTGGTTTGAACGC----------------------
Focub_N2        TCA---GATTCGGAATTACTTTCGTCGACGAACTCAAGACCCTTCAAGGGTGGTTTGAACGCT---------------------
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Marker #13

Alignment: /Users/Peter/Dropbox/_UvA/Shared_Martijn_Peter/03.f.sp.markers/figures/markers_aligned_150bp/nicename/003..70_hypothetical_pr
Seaview [blocks=100 fontsize=7 A4] on Fri Mar 24 15:38:34 2017

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                  1
Forcu_016_1       ----GCATTTAGCCCAATCCTCAGA---AGAGGCCATAAAGGGATGCATAAATAACCAGCTTAAATAAAGACATCTCACCCTCGTTAGAGTCCATCCTAA
Forcu_024_1       ----GCATTTAGCCCAATCCTCAGA---AGAGGCCATAAAGGGATGCATAAATAACCAGCTTAAATAAAGACATCTCACCCTCGTTAGAGTCCATCCTAA
Forcu_031_1       ---GGCATTTAGCCCAATCCTCAGA---AGAGGCCATAAAGGGATGCATAAATAACCAGCTTAAATAAAGACATCTCACCCTCGTTAGAGTCCATCCTAA
Fonic_012         --NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNGAAGTGATGGATGAAGACTGAACATAAAAAGAGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Fogla_G76         --TTCTGGTTGGCTTATGTATCGAAGGGGGCGGTGACGAAGTGATGGATGAAGTCTGAACATAAAAAGGGG-TTCTTTTCCTTCTCAACTCCAATCCAGA
Folil_39          --TTCTAGTTGGCCTATTTATCGAA-GGGGCGGTGACGAAGTGATGGATGAAGGCTGAACATAAAAAGGGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Folyc_073         --TTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATAAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATATAATCCAGA
Folyc_002         -GTTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATAAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATATAATCCAGA
Folyc_004         -GTTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATAAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATATAATCCAGA
Folyc_018         -GTTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATAAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATATAATCCAGA
Folyc_038         -GTTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATAAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATATAATCCAGA
Folyc_074         -GTTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATAAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATATAATCCAGA
Fophy_KOD886      -GTTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATAAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATATAATCCAGA
Fophy_KOD887      -GTTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATAAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATATAATCCAGA
Folyc_007         --TTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATAAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATATAATCCAGA
Folyc_014         --TTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATAAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATATAATCCAGA
Folyc_026         --TTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATAAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATATAATCCAGA
Folyc_029         --TTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATAAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATATAATCCAGA
Folyc_4287        --TTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATAAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATATAATCCAGA
Fophy_KOD888      --TTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATAAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATATAATCCAGA
Fomln_001         -GTTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATAAAGTGATGGATGAGGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Fotul_Tu58        --TTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATGAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Fo47              -GTTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATGAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTGTTTTCCTTCTCAAATCCAATCCAGA
Fo_MN14           -GTTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATGAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTGGTCCTTCTCAAATCCAATCCAGA
Fotul_Tu67        -GTTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATGAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Fogla_G2          -GTTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATGAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Folyc_016         -GTTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATGAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Fonic_001         -GTTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATGAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Fonic_003         -GTTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATGAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Forly_CL57        -GTTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATGAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Fonar_Na5         --TTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATGAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Folyc_072         --TTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATGAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Folyc_075         --TTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATGAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Fonic_010         --TTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATGAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Folyc_069         -GCTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATGAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Forcu_016_0       -GCTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATGAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Forcu_024_0       -GCTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATGAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Forcu_031_0       --CTCTAGTTGGCTTATGTATCGAA-GGCGCGGTGATGAAGTGATGGATGAAGACTGAACGTAAAAAGGGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Folyc_MN25        -GTTCTAGTTGGCTTACGTATTGAA--GGGCGGTGACGAAGTGATGGATGAAAACTGAACATAAAAAGAGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
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Focuc_035         -GTTCTAGTTGGTTTATGTATTGAA--GGGCGGTGACGAAGTGATGGATGAAGACTGAACATAAAAAGAGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Focuc_037         -GTTCTAGTTGGTTTATGTATTGAA--GGGCGGTGACGAAGTGATGGATGAAGACTGAACATAAAAAGAGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Fomom_001         -GTTCTAGTTGGTTTATGTATTGAA--GGGCGGTGACGAAGTGATGGATGAAGACTGAACATAAAAAGAGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Fomom_004         -GTTCTAGTTGGTTTATGTATTGAA--GGGCGGTGACGAAGTGATGGATGAAGACTGAACATAAAAAGAGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Foniv_010         -GTTCTAGTTGGTTTATGTATTGAA--GGGCGGTGACGAAGTGATGGATGAAGACTGAACATAAAAAGAGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
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Foniv_021         -GTTCTAGTTGGTTTATGTATTGAA--GGGCGGTGACGAAGTGATGGATGAAGACTGAACATAAAAAGAGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Fovas_NRRL25433   -GTTCTAGTTGGTTTATGTATTGAA--GGGCGGTGACGAAGTGATGGATGAAGACTGAACATAAAAAGAGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Focuc_015         TGTTCTAGTTGGTTTATGTATTGAA--GGGCGGTGACGAAGTGATGGATGAAGACTGAACATAAAAAGAGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Folag_001         TGTTCTAGTTGGTTTATGTATTGAA--GGGCGGTGACGAAGTGATGGATGAAGACTGAACATAAAAAGAGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Folag_002         TGTTCTAGTTGGTTTATGTATTGAA--GGGCGGTGACGAAGTGATGGATGAAGACTGAACATAAAAAGAGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Folag_005         TGTTCTAGTTGGTTTATGTATTGAA--GGGCGGTGACGAAGTGATGGATGAAGACTGAACATAAAAAGAGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
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Fomln_011         -GTTCTAGTTGGCTTATGTATTGAA--GGGCGGTGACGAAGTGATGGATGAAGACTGAACATAAAAAGAGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Foniv_002         -GTTCTAGTTGGCTTATGTATTGAA--GGGCGGTGACGAAGTGATGGATGAAGACTGAACATAAAAAGAGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Foniv_037         -GTTCTAGTTGGCTTATGTATTGAA--GGGCGGTGACGAAGTGATGGATGAAGACTGAACATAAAAAGAGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
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Fopis_HDV247      TGTTCTAGTTGGCTTATGTATTGAA--GGGCGGTGACGAAGTGATGGATGAAGACTGAACATAAAAAGAGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Forap_PHW815      TGTTCTAGTTGGCTTACGTATTGAA--GGGCGGTGACGAAGTGATGGATGAAGACTGAACATAAAAAGAGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Focuc_018         -GTTCTAGTTGGCTTACGTATTGAA--GGGCGGTGACGAAGTGATGGATGAAGACTGAACATAAAAAGAGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Focuc_021         TGTTCTAGTTGGCTTACGTATTGAA--GGGCGGTGACGAAGTGATGGATGAAGACTGAACATAAAAAGAGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Focuc_030         TGTTCTAGTTGGCTTACGTATTGAA--GGGCGGTGACGAAGTGATGGATGAAGACTGAACATAAAAAGAGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Foniv_015         -GTTATAGTTGGCTCATGTATGGAA-GGGGCGGTGACGAAGTGATGGATGAAGACTGAGCATAAAAAGGGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
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Fomln_004         --TTATAGTTGGCTCATGTATAGAA-GGGGCGGTGACGAAGTGATGGATGAAGACTGAGCATAAAAAGGGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
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Fomln_005         -GTTATAGTTGGCTCATGTATAGAA-GGGGCGGTGACGAAGTGATGGATGAAGACTGAGCATAAAAAGGGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Fomln_013         -GTTATAGTTGGCTCATGTATAGAA-GGGGCGGTGACGAAGTGATGGATGAAGACTGAGCATAAAAAGGGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Focub_B2          --TTCTAGTTGGCCTATTCATCGAA-GGGGCGGTGACGAAGTGATGGATGAAGGCTGAACATAAAAAGGGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Focub_II5         --TTCTAGTTGGCCTATTCATCGAA-GGGGCGGTGACGAAGTGATGGATGAAGGCTGAACATAAAAAGGGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Focuc_011         --TTCTAGTTGGCTTATTTATCGAA-GGGGCGGTGACGAAGTGATGGATGAAGGCTGAGCATAAAAAGGGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Focuc_013         -GTTCTAGTTGGCTTATTTATCGAA-GGGGCGGTGACGAAGTGATGGATGAAGGCTGAGCATAAAAAGGGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Fobul_G14         --TTCTAGTTGGCTCATGTATGGAA-GGGGCGGTGACGAAGTGATGGATGAAGACTGAACATAAAAAGAGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Focon_5176        TGTTCTAGTTGGCTTATGTATTGAA--GGGCGGTGACGAAGTGATGGATGAAGACTGAACATAAAAAGAGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Focon_PHW808      -GTTCTAGTTGGCTTATGTATTGAA--GGGCGGTGACGAAGTGATGGATGAAGACTGAACATAAAAAGAGG-TTCTTTTCCTTCTCAAATCCAATCCAGA
Focub_N2          -GTTCTAGTTGGCTTATGTATTGAA--GGGCGGTGACGAAGTGATGGATGAAGACTGAACATAAAAAGAGG-TTCTTTTCCTTCTCAAATCTAATCCAAA
Folag_004         TGTTCTAGTTGGCTTATGTATTGAA--GGGCGGTGACGAAGTGATGGATGAAGACTGAACATAAAAAGAGG-TTCTTTTCCTTCTCAAATCTAATCCAGA
Foluf_002         TGTTCTAGTTGGCTTATGTATTGAA--GGGCGGTGACGAAGTGATGGATGAAGACTGAACATAAAAAGAGG-TTCTTTTCCTTCTCAAATCTAATCCAGA
Foluf_001         -GTTCTAGTTGGCTTATGTATTGAA--GGGCGGTGACGAAGTGATGGATGAAGACTGAACATAAAAAGAGG-TTCTTTTCCTTCTCAAATCTAATCCAGA
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Marker #70

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                 101
Forcu_016_1      TTATCAGCAAACAACAGCATTTCACTTTTATCCTTAGAAAAACACACCGAATTACAATGGCAACTAGCATCAAGTCTCTCGTCCTTGCGTGCTTTCTTAT
Forcu_024_1      TTATCAGCAAACAACAGCATTTCACTTTTATCCTTAGAAAAACACACCGAATTACAATGGCAACTAGCATCAAGTCTCTCGTCCTTGCGTGCTTTCTTAT
Forcu_031_1      TTATCAGCAAACAACAGCATTTCACTTTTATCCTTAGAAAAACACACCGAATTACAATGGCAACTAGCATCAAGTCTCTCGTCCTTGCGTGCTTTCTTAT
Fonic_012        CTTTCATCATGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Fogla_G76        CTTTCATCAAACA-CA--CTTTACCTTATATCTCCCCTTCGATACAAATAATAATAATTGAAGTTACTCTTAAGGTATTGGCCCTTGGCCTCTTTCTTGT
Folil_39         CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Folyc_073        CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Folyc_002        CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Folyc_004        CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Folyc_018        CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Folyc_038        CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Folyc_074        CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Fophy_KOD886     CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Fophy_KOD887     CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Folyc_007        CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Folyc_014        CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Folyc_026        CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Folyc_029        CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Folyc_4287       CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Fophy_KOD888     CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Fomln_001        CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Fotul_Tu58       CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Fo47             CTTTTATCAAGCA-CA--CTTTACTTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Fo_MN14          CATTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCATTGGCCCTTGGCCTCTTTCTTGC
Fotul_Tu67       CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Fogla_G2         CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Folyc_016        CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Fonic_001        CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Fonic_003        CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Forly_CL57       CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Fonar_Na5        CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Folyc_072        CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Folyc_075        CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Fonic_010        CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Folyc_069        CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Forcu_016_0      CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Forcu_024_0      CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Forcu_031_0      CTTTTATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAGATAATAATAATGGAAGTTACTATTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Folyc_MN25       CTTTCATCAATCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Focuc_001        CTTTCATCATGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Focuc_035        CTTTCATCATGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Focuc_037        CTTTCATCATGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Fomom_001        CTTTCATCATGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Fomom_004        CTTTCATCATGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Foniv_010        CTTTCATCATGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Foniv_013        CTTTCATCATGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Foniv_021        CTTTCATCATGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Fovas_NRRL25433  CTTTCATCATGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Focuc_015        CTTTCATCATGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Folag_001        CTTTCATCATGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Folag_002        CTTTCATCATGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Folag_005        CTTTCATCATGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Foniv_005        CTTTCATCATGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Foniv_020        CTTTCATCATGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Fomel_001        CTTTCATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Fomln_011        CTTTCATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Foniv_002        CTTTCATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Foniv_037        CTTTCATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Fomln_009        CTTTCATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Fomln_010        CTTTCATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Fopis_HDV247     CTTTCATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Forap_PHW815     CTTTCATCAATCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Focuc_018        CTTTCATCAATCA-CA--CTTTAACTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Focuc_021        CTTTCATCAATCA-CA--CTTTAACTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Focuc_030        CTTTCATCAATCA-CA--CTTTAACTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Foniv_015        CTTTCATCAAGCA-TA--CTTTACCTTCTATCCCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Foniv_019        CTTTCATCAAGCA-TA--CTTTACCTTCTATCCCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Fomln_004        CTTTCATCAAGCA-TA--CTTTACCTTCTATCCCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Fomln_006        CTTTCATCAAGCA-TA--CTTTACCTTCTATCCCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Fomln_012        CTTTCATCAAGCA-TA--CTTTACCTTCTATCCCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Fomln_016        CTTTCATCAAGCA-TA--CTTTACCTTCTATCCCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Fomln_005        CTTTCATCAAGCA-TA--CTTTACCTTCTATCCCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Fomln_013        CTTTCATCAAGCA-TA--CTTTACCTTCTATCCCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Focub_B2         CTTTCATCAAGCA-CA--CTTTACCTGCTATATCCTCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Focub_II5        CTTTCATCAAGCA-CA--CTTTACCTGCTATATCCTCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Focuc_011        CTTTCATCAAGCA-CA--CTTTACCTTCTATCTCCTCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Focuc_013        CTTTCATCAAGCA-CA--CTTTACCTTCTATCTCCTCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTCTTTCTTGC
Fobul_G14        CTTTCATCAAGCA-CA--CTTTGCCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Focon_5176       CTTTCATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Focon_PHW808     CTTTCATCAAGCA-CA--CTTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Focub_N2         CTTTCATCAAGCA-CA--ATTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Folag_004        CTTTCATCAAGCA-CA--ATTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Foluf_002        CTTTCATCAAGCA-CA--ATTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
Foluf_001        CTTTCATCAAGCA-CA--ATTTACCTTCTATCTCCCCTTCGATACAAATAATAATAATGGAAGTTACTCTTAAGGCACTGGCCCTTGGCCTATTTCTTGC
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Marker #70

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                  201                    fp7306 fwd> Forcu
Forcu_016_1       TCAAGCTGCACAAAGGTACATACAACCTCTCTCTTTCCTTCCCAGCAGCGCCCGGACTAATCCAATAAACAATCAGCAAGGACCACAGTAGTCACAACTG
Forcu_024_1       TCAAGCTGCACAAAGGTACATACAACCTCTCTCTTTCCTTCCCAGCAGCGCCCGGACTAATCCAATAAACAATCAGCAAGGACCACAGTAGTCACAACTG
Forcu_031_1       TCAAGCTGCACAAAGGTACATACAACCTCTCTCTTTCCTTCCCAGCAGCGCCCGGACTAATCCAATAAACAATCAGCAAGGACCACAGTAGTCACAACTG
Fonic_012         CCAAGCGGTACATGGGTACATATACTCCCATCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Fogla_G76         CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATGAACACCCGTATTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Folil_39          CCAAGCGGCACATGGGTACATAAACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Folyc_073         CCAAGCGGCAAATGGGTACATATACTCCCACCGATTTCATTGTATTAACATCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Folyc_002         CCAAGCGGCAAATGGGTACATATACTCCCACCGATTTCATTGTATTAACATCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Folyc_004         CCAAGCGGCAAATGGGTACATATACTCCCACCGATTTCATTGTATTAACATCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Folyc_018         CCAAGCGGCAAATGGGTACATATACTCCCACCGATTTCATTGTATTAACATCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Folyc_038         CCAAGCGGCAAATGGGTACATATACTCCCACCGATTTCATTGTATTAACATCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Folyc_074         CCAAGCGGCAAATGGGTACATATACTCCCACCGATTTCATTGTATTAACATCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Fophy_KOD886      CCAAGCGGCAAATGGGTACATATACTCCCACCGATTTCATTGTATTAACATCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Fophy_KOD887      CCAAGCGGCAAATGGGTACATATACTCCCACCGATTTCATTGTATTAACATCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Folyc_007         CCAAGCGGCAAATGGGTACATATACTCCCACCGATTTCATTGTATTAACATCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Folyc_014         CCAAGCGGCAAATGGGTACATATACTCCCACCGATTTCATTGTATTAACATCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Folyc_026         CCAAGCGGCAAATGGGTACATATACTCCCACCGATTTCATTGTATTAACATCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Folyc_029         CCAAGCGGCAAATGGGTACATATACTCCCACCGATTTCATTGTATTAACATCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Folyc_4287        CCAAGCGGCAAATGGGTACATATACTCCCACCGATTTCATTGTATTAACATCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Fophy_KOD888      CCAAGCGGCAAATGGGTACATATACTCCCACCGATTTCATTGTATTAACATCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Fomln_001         CCAAGCGGCAAATGGGTACATATACTCCCACCGATTTCATTGTATTAACATCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Fotul_Tu58        CCAAGCGGCACATGGGTACATAAACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTTACAACTG
Fo47              CCAAGCGGCACATGGGTACATAAACTCCCACCGATTTCATTGTATTAACACTCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTTACAACTG
Fo_MN14           CCAAGCGGCACATGGGTACATAAACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTTACAACTG
Fotul_Tu67        CCAAGCGGCACATGGGTACATAAACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGGCCATAGTAGTTACAACTG
Fogla_G2          CCAAGCGGCACATGGGTACATAAACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTTACAACTG
Folyc_016         CCAAGCGGCACATGGGTACATAAACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTTACAACTG
Fonic_001         CCAAGCGGCACATGGGTACATAAACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTTACAACTG
Fonic_003         CCAAGCGGCACATGGGTACATAAACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTTACAACTG
Forly_CL57        CCAAGCGGCACATGGGTACATAAACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTTACAACTG
Fonar_Na5         CCAAGCGGCACATGGGTACATAAACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTTACAACTG
Folyc_072         CCAAGCGGCACATGGGTACATAAACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTTACAACTG
Folyc_075         CCAAGCGGCACATGGGTACATAAACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTTACAACTG
Fonic_010         CCAAGCGGCACATGGGTACATAAACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTTACAACTG
Folyc_069         CCAAGCGGCACATGGGTACATAAACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTTACAACTG
Forcu_016_0       CCAAGCGGCACATGGGTACATAAACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTTACAACTG
Forcu_024_0       CCAAGCGGCACATGGGTACATAAACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTTACAACTG
Forcu_031_0       CCAAGCGGCACATGGGTACATAAACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTTACAACTG
Folyc_MN25        CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACGCCCGTACTGATACATCAGATAAGTTCAAAGGACCAAGGTAGTCACAACTG
Focuc_001         CCAAGCGGTACATGGGTACATATACTCCCATCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Focuc_035         CCAAGCGGTACATGGGTACATATACTCCCATCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Focuc_037         CCAAGCGGTACATGGGTACATATACTCCCATCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Fomom_001         CCAAGCGGTACATGGGTACATATACTCCCATCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Fomom_004         CCAAGCGGTACATGGGTACATATACTCCCATCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Foniv_010         CCAAGCGGTACATGGGTACATATACTCCCATCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Foniv_013         CCAAGCGGTACATGGGTACATATACTCCCATCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Foniv_021         CCAAGCGGTACATGGGTACATATACTCCCATCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Fovas_NRRL25433   CCAAGCGGTACATGGGTACATATACTCCCATCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Focuc_015         CCAAGCGGTACATGGGTACATATACTCCCATCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Folag_001         CCAAGCGGTACATGGGTACATATACTCCCATCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Folag_002         CCAAGCGGTACATGGGTACATATACTCCCATCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Folag_005         CCAAGCGGTACATGGGTACATATACTCCCATCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Foniv_005         CCAAGCGGTACATGGGTACATATACTCCCATCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Foniv_020         CCAAGCGGTACATGGGTACATATACTCCCATCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Fomel_001         CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCGTAATGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Fomln_011         CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCGTAATGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Foniv_002         CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCGTAATGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Foniv_037         CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCGTAATGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Fomln_009         CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCGTAATGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Fomln_010         CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCGTAATGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Fopis_HDV247      CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCGTAATGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Forap_PHW815      CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTAAAAGGACCATAGTAGTCACAAATG
Focuc_018         CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTAAAAGGACCATAGTAGTCACAAATG
Focuc_021         CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTAAAAGGACCATAGTAGTCACAAATG
Focuc_030         CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTAAAAGGACCATAGTAGTCACAAATG
Foniv_015         CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Foniv_019         CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Fomln_004         CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Fomln_006         CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Fomln_012         CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Fomln_016         CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Fomln_005         CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Fomln_013         CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Focub_B2          CCAAGCGGTACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAGGTTCAAAGGACCATAGTAGTCACAACTG
Focub_II5         CCAAGCGGTACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAGGTTCAAAGGACCATAGTAGTCACAACTG
Focuc_011         CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Focuc_013         CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Fobul_G14         CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAAAAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Focon_5176        CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Focon_PHW808      CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCGTACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Focub_N2          CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCATACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Folag_004         CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCATACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Foluf_002         CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCATACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
Foluf_001         CCAAGCGGCACATGGGTACATATACTCCCACCGATTTCATTGTATTAACACCCATACTGATACAACAGATAAGTTCAAAGGACCATAGTAGTCACAACTG
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Marker #70

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                 301
Forcu_016_1      CTGTTTGAACACTTTTGAGGGCTGGATTCCCCGAAACGATTGGACAAAGGCGGTGTGTGCTAAACGCTGGGGGTCTGTGGTAAGTACTGGTCTAATTCGA
Forcu_024_1      CTGTTTGAACACTTTTGAGGGCTGGATTCCCCGAAACGATTGGACAAAGGCGGTGTGTGCTAAACGCTGGGGGTCTGTGGTAAGTACTGGTCTAATTCGA
Forcu_031_1      CTGTTTGAACACTTTTGAGGGCTGGATTCCCCGAAACGATTGGACAAAGGCGGTGTGTGCTAAACGCTGGGGGTCTGTGGTAAGTACTGGTCTAATTCGA
Fonic_012        CTGCTTGAACACTCCTGAAGGGTGGATTCCCTGAAATGATTGGACCAAGGCTGTCTGTACCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Fogla_G76        CTGCTTGAACACTCCTGAAGGGTGGATTCCCCGAGATAATTGGACCAAGGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Folil_39         CTGTTTGAACACTCCTGAAGGATGGATTCCCCGGAATGATTGGACCAATGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Folyc_073        CTGCTTGAACACTCCTGAAGGATGGATTTCCCGAAATGATTGGACCAATGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Folyc_002        CTGCTTGAACACTCCTGAAGGATGGATTTCCCGAAATGATTGGACCAATGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Folyc_004        CTGCTTGAACACTCCTGAAGGATGGATTTCCCGAAATGATTGGACCAATGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Folyc_018        CTGCTTGAACACTCCTGAAGGATGGATTTCCCGAAATGATTGGACCAATGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
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Folyc_074        CTGCTTGAACACTCCTGAAGGATGGATTTCCCGAAATGATTGGACCAATGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Fophy_KOD886     CTGCTTGAACACTCCTGAAGGATGGATTTCCCGAAATGATTGGACCAATGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Fophy_KOD887     CTGCTTGAACACTCCTGAAGGATGGATTTCCCGAAATGATTGGACCAATGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Folyc_007        CTGCTTGAACACTCCTGAAGGATGGATTTCCCGAAATGATTGGACCAATGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Folyc_014        CTGCTTGAACACTCCTGAAGGATGGATTTCCCGAAATGATTGGACCAATGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
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Folyc_4287       CTGCTTGAACACTCCTGAAGGATGGATTTCCCGAAATGATTGGACCAATGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Fophy_KOD888     CTGCTTGAACACTCCTGAAGGATGGATTTCCCGAAATGATTGGACCAATGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Fomln_001        CTGCTTGAACACTCCTGAAGGATGGATTTCCCGAAATGATTGGACCAATGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Fotul_Tu58       CTGCTTGAACACTCCTGAAGGGTGGATTCCCCGAAATGATTGGACCAAGGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Fo47             CTGCTTGAACACTCCTGAAGGGTGGATTCCCCGAAATGATTGGACCAAGGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Fo_MN14          CTGCTTGAACACTCCTGAAGGGTGGATTCCCCGAAATGATTGGACCAAGGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Fotul_Tu67       CTGCTTGAACACTCCTGAAGGGTGGATTCCCCGAAATGATTGGACCAAGGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Fogla_G2         CTGCTTGAACACTCCTGAAGGGTGGATTCCCCGAAATGATTGGACCAAGGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Folyc_016        CTGCTTGAACACTCCTGAAGGGTGGATTCCCCGAAATGATTGGACCAAGGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Fonic_001        CTGCTTGAACACTCCTGAAGGGTGGATTCCCCGAAATGATTGGACCAAGGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Fonic_003        CTGCTTGAACACTCCTGAAGGGTGGATTCCCCGAAATGATTGGACCAAGGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Forly_CL57       CTGCTTGAACACTCCTGAAGGGTGGATTCCCCGAAATGATTGGACCAAGGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Fonar_Na5        CTGCTTGAACACTCCTGAAGGGTGGATTCCCCGAAATGATTGGACCAAGGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
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Forcu_016_0      CTGCTTGAACACTCCTGAAGGGTGGATTCCCCGAAATGATTGGACCAAGGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
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Forcu_031_0      CTGCTTGAACACTCCTGAAGGGTGGATTCCCCGAAATGATTGGACCAAGGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
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Fovas_NRRL25433  CTGCTTGAACACTCCTGAAGGGTGGATTCCCTGAAATGATTGGACCAAGGCTGTCTGTACCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
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Fomln_011        CTGCTTGAACACTCCTGAAGGGTGGATTCCCCGAAATGATTGGACCAAGGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Foniv_002        CTGCTTGAACACTCCTGAAGGGTGGATTCCCCGAAATGATTGGACCAAGGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Foniv_037        CTGCTTGAACACTCCTGAAGGGTGGATTCCCCGAAATGATTGGACCAAGGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
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Fopis_HDV247     CTGCTTGAACACTCCTGAAGGGTGGATTCCCCGAAATGATTGGACCAAGGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Forap_PHW815     CTGCTTGAACACTCCTGAAGGGTGGATTCCCCGAAATGATTGGACCAAGGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
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Foniv_015        CTGCTTGAACACTCCTGAAGGATGGATTCCCCGGAATGATTGGACCAATGCTATCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Foniv_019        CTGCTTGAACACTCCTGAAGGATGGATTCCCCGGAATGATTGGACCAATGCTATCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Fomln_004        CTGCTTGAACACTCCTGAAGGATGGATTCCCCGGAATGATTGGACCAATGCTATCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Fomln_006        CTGCTTGAACACTCCTGAAGGATGGATTCCCCGGAATGATTGGACCAATGCTATCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Fomln_012        CTGCTTGAACACTCCTGAAGGATGGATTCCCCGGAATGATTGGACCAATGCTATCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
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Fomln_013        CTGCTTGAACACTCCTGAAGGATGGATTCCCCGGAATGATTGGACCAATGCTATCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Focub_B2         CTGCTTGAACACTCCTGAAGGGTGGATTCCCCGAAATGGTTGGACCCAGGCTGGCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--TAA
Focub_II5        CTGCTTGAACACTCCTGAAGGGTGGATTCCCCGAAATGGTTGGACCCAGGCTGGCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--TAA
Focuc_011        CTGCTTGAACACTCCTGAAGGGTGGATTCCCCGAAATGATTGGACCAAGGCTGGCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--TAA
Focuc_013        CTGCTTGAACACTCCTGAAGGGTGGATTCCCCGAAATGATTGGACCAAGGCTGGCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--TAA
Fobul_G14        CTGCCTGAACACTCCTGAAGGGTGGATTCCCCGAAATGATTGGACCAAGGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Focon_5176       CTGCTTGAACACTCCTGAAGGGTGGATTCCCCGAAATGATTGGACCAAGGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCTCTTA--CAA
Focon_PHW808     CTGCTTGAACACTCCTGAAGGGTGGATTCCCCGAAATGATTGGACCAAGGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCTCTTA--CAA
Focub_N2         CTGCTTGAACACTCCTGAAGGGTGGATTCCCCGAAATGATTGGACCAAGGCTGTCTGTGCCATGCGCTGGGGATCTGTTGTAAGTAGCCCCCTTA--CAA
Folag_004        CTGCTTGAACACTCCTGAAGGGTGGATTCCCCGAAATGATTGGACCAAGGCTGTCTGTGCCATGCGCTGGGTATCTGTTGTAAGTAGCCCCCTTA--CAA
Foluf_002        CTGCTTGAACACTCCTGAAGGGTGGATTCCCCGAAATGATTGGACCAAGGCTGTCTGTGCCATGCGCTGGGTATCTGTTGTAAGTAGCCCCCTTA--CAA
Foluf_001        CTGCTTGAACACTCCTGAAGGGTGGATTCCCCGAAATGATTGGACCAAGGCTGTCTGTGCCATGCGCTGGGTATCTGTTGTAAGTAGCCCCCTTA--CAA
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Marker #70

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                 401
Forcu_016_1      CTCC--AGTGGATGTAATAACGCGGCTGTCAGGCGACTTTCGACGGCGTCAAGTGTATTCAGAAGCCAGGCAATGTGATCAGTGGCGATGATTTCTTCAC
Forcu_024_1      CTCC--AGTGGATGTAATAACGCGGCTGTCAGGCGACTTTCGACGGCGTCAAGTGTATTCAGAAGCCAGGCAATGTGATCAGTGGCGATGATTTCTTCAC
Forcu_031_1      CTCC--AGTGGATGTAATAACGCGGCTGTCAGGCGACTTTCGACGGCGTCAAGTGTATTCAGAAGCCAGGCAATGTGATCAGTGGCGATGATTTCTTCAC
Fonic_012        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGGTGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Fogla_G76        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTTATGGTGTTAGATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Folil_39         TCTTGGAATAAGCGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCGGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Folyc_073        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATAAGCGGTGATGACTTTTATAC
Folyc_002        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATAAGCGGTGATGACTTTTATAC
Folyc_004        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATAAGCGGTGATGACTTTTATAC
Folyc_018        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATAAGCGGTGATGACTTTTATAC
Folyc_038        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATAAGCGGTGATGACTTTTATAC
Folyc_074        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATAAGCGGTGATGACTTTTATAC
Fophy_KOD886     TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATAAGCGGTGATGACTTTTATAC
Fophy_KOD887     TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATAAGCGGTGATGACTTTTATAC
Folyc_007        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATAAGCGGTGATGACTTTTATAC
Folyc_014        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATAAGCGGTGATGACTTTTATAC
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Folyc_029        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATAAGCGGTGATGACTTTTATAC
Folyc_4287       TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATAAGCGGTGATGACTTTTATAC
Fophy_KOD888     TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATAAGCGGTGATGACTTTTATAC
Fomln_001        TCTTGGAGTAAACGT-TTGGCAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAACGGTGATGACTTTTATAC
Fotul_Tu58       TCTTGGAGTAAACGT-ATGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAACGGTGATGACTTTTATAC
Fo47             TCTTGGAGTAAACAT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAACGGTGATGACTTTTATAC
Fo_MN14          TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAACGGTGATGACTTTTATAC
Fotul_Tu67       TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAGCCAGGCAACGTCATCAACGGTGATGACTTTTATAC
Fogla_G2         TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAACGGTGATGACTTTTATAC
Folyc_016        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAACGGTGATGACTTTTATAC
Fonic_001        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAACGGTGATGACTTTTATAC
Fonic_003        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAACGGTGATGACTTTTATAC
Forly_CL57       TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAACGGTGATGACTTTTATAC
Fonar_Na5        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAACGGTGATGACTTTTATAC
Folyc_072        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAACGGTGATGACTTTTATAC
Folyc_075        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAACGGTGATGACTTTTATAC
Fonic_010        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAACGGTGATGACTTTTATAC
Folyc_069        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAACGGTGATGACTTTTATAC
Forcu_016_0      TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAACGGTGATGACTTTTATAC
Forcu_024_0      TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAACGGTGATGACTTTTATAC
Forcu_031_0      TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAACGGTGATGACTTTTATAC
Folyc_MN25       TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCACCCAGAAACCAGGCAACGTCATCAGCGGCGATGACTTTTATAC
Focuc_001        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Focuc_035        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Focuc_037        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Fomom_001        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Fomom_004        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Foniv_010        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Foniv_013        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Foniv_021        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Fovas_NRRL25433  TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Focuc_015        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Folag_001        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Folag_002        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Folag_005        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Foniv_005        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Foniv_020        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Fomel_001        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Fomln_011        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Foniv_002        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Foniv_037        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Fomln_009        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Fomln_010        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Fopis_HDV247     TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Forap_PHW815     TCTTGCATTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCACCCAGAAACCAGGCAACGTCATCAGCGGCGATGACTTTTATAC
Focuc_018        TCTTGCATTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCACCCAGAAACCAGGCAACGTCATCAGCGGCGATGACTTTTATAC
Focuc_021        TCTTGCATTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCACCCAGAAACCAGGCAACGTCATCAGCGGCGATGACTTTTATAC
Focuc_030        TCTTGCATTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCACCCAGAAACCAGGCAACGTCATCAGCGGCGATGACTTTTATAC
Foniv_015        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGAAATTTGATGGTGTTAGATGCATCCAGGAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Foniv_019        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGAAATTTGATGGTGTTAGATGCATCCAGGAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Fomln_004        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGAAATTTGATGGTGTTAGATGCATCCAGGAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Fomln_006        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGAAATTTGATGGTGTTAGATGCATCCAGGAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Fomln_012        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGAAATTTGATGGTGTTAGATGCATCCAGGAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Fomln_016        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGAAATTTGATGGTGTTAGATGCATCCAGGAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Fomln_005        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGAAATTTGATGGTGTTAGATGCATCCAGGAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Fomln_013        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGAAATTTGATGGTGTTAGATGCATCCAGGAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Focub_B2         TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGT-ATCAGCGGTGATGACTTTTATAC
Focub_II5        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGT-ATCAGCGGTGATGACTTTTATAC
Focuc_011        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGAGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Focuc_013        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGAGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Fobul_G14        TCTTGGAGTAAACGT-TTGACAAGAGCATGAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Focon_5176       TCTTGGAGCAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGATGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Focon_PHW808     TCTTGGAGCAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGATGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Focub_N2         TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGGTGATGACTTTTATAC
Folag_004        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGTTGATGACTTTTATAC
Foluf_002        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGTTGATGACTTTTATAC
Foluf_001        TCTTGGAGTAAACGT-TTGACAAGAGCATCAGGCGACATTTGATGGTGTTAAATGCATCCAGAAACCAGGCAACGTCATCAGCGTTGATGACTTTTATAC
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Marker #70

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                 501
Forcu_016_1      TGCCTGCAAGCTTTATGGAAGGATGCACGGTTATGGACCCGAGTGGGAGATTGGTGCTGGATATCGTGGCACTTGCTCTTAAGCTGTTATAATTATGTAT
Forcu_024_1      TGCCTGCAAGCTTTATGGAAGGATGCACGGTTATGGACCCGAGTGGGAGATTGGTGCTGGATATCGTGGCACTTGCTCTTAAGCTGTTATAATTATGTAT
Forcu_031_1      TGCCTGCAAGCTTTATGGAAGGATGCACGGTTATGGACCCGAGTGGGAGATTGGTGCTGGATATCGTGGCACTTGCTCTTAAGCTGTTATAATTATGTAT
Fonic_012        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Fogla_G76        CGCGTGCAAGCTGTATGGGGCAACTAATGGCTATGGACCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAT
Folil_39         CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Folyc_073        CAGGTGCAAGTTGTATGGGGCAACTAATAGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Folyc_002        CAGGTGCAAGTTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Folyc_004        CAGGTGCAAGTTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Folyc_018        CAGGTGCAAGTTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Folyc_038        CAGGTGCAAGTTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Folyc_074        CAGGTGCAAGTTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Fophy_KOD886     CAGGTGCAAGTTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Fophy_KOD887     CAGGTGCAAGTTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Folyc_007        CAGGTGCAAGTTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Folyc_014        CAGGTGCAAGTTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Folyc_026        CAGGTGCAAGTTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Folyc_029        CAGGTGCAAGTTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Folyc_4287       CAGGTGCAAGTTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Fophy_KOD888     CAGGTGCAAGTTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Fomln_001        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGACCTGAGTGGGAGAAGGGCGCGGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Fotul_Tu58       CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGACCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCCCTTAAGCT----------TGCAC
Fo47             CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCTTGAGTGGGAGAAGGGCGCATGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Fo_MN14          CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCTTGAGTGGGAGAAGGGCGCATGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Fotul_Tu67       CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCTTGAGTGGGAGAAGGGCGCATGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Fogla_G2         CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCTTGAGTGGGAGAAGGGCGCATGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Folyc_016        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCTTGAGTGGGAGAAGGGCGCATGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Fonic_001        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCTTGAGTGGGAGAAGGGCGCATGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Fonic_003        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCTTGAGTGGGAGAAGGGCGCATGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Forly_CL57       CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCTTGAGTGGGAGAAGGGCGCATGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Fonar_Na5        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCTTGAGTGGGAGAAGGGCGCATGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Folyc_072        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCTTGAGTGGGAGAAGGGCGCATGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Folyc_075        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCTTGAGTGGGAGAAGGGCGCATGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Fonic_010        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCTTGAGTGGGAGAAGGGCGCATGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Folyc_069        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCTTGAGTGGGAGAAGGGCGCATGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Forcu_016_0      CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCTTGAGTGGGAGAAGGGCGCATGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Forcu_024_0      CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCTTGAGTGGGAGAAGGGCGCATGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Forcu_031_0      CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCTTGAGTGGGAGAAGGGCGCATGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Folyc_MN25       CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGACCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Focuc_001        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Focuc_035        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Focuc_037        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Fomom_001        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Fomom_004        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Foniv_010        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Foniv_013        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Foniv_021        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Fovas_NRRL25433  CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Focuc_015        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Folag_001        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Folag_002        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Folag_005        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Foniv_005        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Foniv_020        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGGCCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Fomel_001        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGACCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Fomln_011        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGACCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Foniv_002        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGACCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Foniv_037        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGACCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Fomln_009        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGACCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Fomln_010        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGACCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Fopis_HDV247     CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGACCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Forap_PHW815     CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGACCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Focuc_018        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGACCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Focuc_021        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGACCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Focuc_030        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGACCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTGCTCTTAGGCT----------TGCAC
Foniv_015        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGACCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTACTCTTAGGCT----------TACAC
Foniv_019        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGACCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTACTCTTAGGCT----------TACAC
Fomln_004        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGACCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTACTCTTAGGCT----------TACAC
Fomln_006        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGACCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTACTCTTAGGCT----------TACAC
Fomln_012        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGACCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTACTCTTAGGCT----------TACAC
Fomln_016        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGACCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTACTCTTAGGCT----------TACAC
Fomln_005        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGACCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTACTCTTAGGCT----------TACAC
Fomln_013        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGACCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTACTCTTAGGCT----------TACAC
Focub_B2         CGCGTGCAAGCTATATGGGGCAACTAATGGTTATGGATCTGAGTGGGAGAAGGGC------------------------------------------
Focub_II5        CGCGTGCAAGCTATATGGGGCAACTAATGGTTATGGATCTGAGTGGGAGAAGGGC------------------------------------------
Focuc_011        CGTGTGCAAGCTATATGGGGCAACTAATGGTTATGGATCTGAGTGGGAGAAGGGC------------------------------------------
Focuc_013        CGTGTGCAAGCTATATGGGGCAACTAATGGTTATGGATCTGAGTGGGAGAAGGGC------------------------------------------
Fobul_G14        CGCGTGCAAGCTGTATGGAGCAACTGATGGTTATGGACCTGAGTGGGAGAAGGGCGCA-GATATCGCGGTACTTGTTTTTAGGCT----------TGCAC
Focon_5176       CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGACCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTACTCTTAGGCT----------TACAC
Focon_PHW808     CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGACCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTACTCTTAGGCT----------TACAC
Focub_N2         CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGACCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTACTCTTAGGCT----------TACAC
Folag_004        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGACCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTACTCTTAGGCT----------TACAC
Foluf_002        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGACCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTACTCTTAGGCT----------TACAC
Foluf_001        CGCGTGCAAGCTGTATGGGGCAACTAATGGTTATGGACCTGAGTGGGAGAAGGGCGCAGGATATCGCGGTACTTACTCTTAGGCT----------TACAC
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Marker #70

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```

fp7323 rev < Forcu

Marker #70

```
                 701
Forcu_016_1      TCTATTCCTAATTGTT------GTGTACCCCTGATTGTCGCGTACCCCGGT-----------------------------------------
Forcu_024_1      TCTATTCCTAATTGTT------GTGTACCCCTGATTGTCGCGTACCCCGGT-----------------------------------------
Forcu_031_1      TCTATTCCTAATTGTT------GTGTACCCCTGATTGTCGCGTACCCCGG------------------------------------------
Fonic_012        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAGTTGTG-----------------------------------
Fogla_G76        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCTCCTAAAATTGTG-----------------------------------
Folil_39         TCTTGCTCCAGAAATCAAGCTGAAGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTGA----------------------------------
Folyc_073        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTGA----------------------------------
Folyc_002        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTG-----------------------------------
Folyc_004        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTG-----------------------------------
Folyc_018        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTG-----------------------------------
Folyc_038        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTG-----------------------------------
Folyc_074        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTG-----------------------------------
Fophy_KOD886     TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTG-----------------------------------
Fophy_KOD887     TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTG-----------------------------------
Folyc_007        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTGA----------------------------------
Folyc_014        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTGA----------------------------------
Folyc_026        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTGA----------------------------------
Folyc_029        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTGA----------------------------------
Folyc_4287       TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTGA----------------------------------
Fophy_KOD888     TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTGA----------------------------------
Fomln_001        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCTAATCCCTCCACCTAAAATTGTG-----------------------------------
Fotul_Tu58       TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCTA---------CCTAAAATTGTGACAGGGGTTA-----------------------
Fo47             TCTTGCTCCAGAAATCAAGCTGGTGTGCCCATGCCAATCCCTCCGCCTAAAATTGTG-----------------------------------
Fo_MN14          TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTG-----------------------------------
Fotul_Tu67       TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTG-----------------------------------
Fogla_G2         TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTG-----------------------------------
Folyc_016        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTG-----------------------------------
Fonic_001        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTG-----------------------------------
Fonic_003        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTG-----------------------------------
Forly_CL57       TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTG-----------------------------------
Fonar_Na5        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTGA----------------------------------
Folyc_072        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTGA----------------------------------
Folyc_075        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTGA----------------------------------
Fonic_010        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTGA----------------------------------
Folyc_069        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTG-----------------------------------
Forcu_016_0      TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTG-----------------------------------
Forcu_024_0      TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTG-----------------------------------
Forcu_031_0      TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAATTGTGA----------------------------------
Folyc_MN25       TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCTCCTAAAATTGTGA----------------------------------
Focuc_001        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAGTTGTGA----------------------------------
Focuc_035        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAGTTGTGA----------------------------------
Focuc_037        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAGTTGTGA----------------------------------
Fomom_001        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAGTTGTGA----------------------------------
Fomom_004        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAGTTGTGA----------------------------------
Foniv_010        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAGTTGTGA----------------------------------
Foniv_013        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAGTTGTGA----------------------------------
Foniv_021        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAGTTGTGA----------------------------------
Fovas_NRRL25433  TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAGTTGTGA----------------------------------
Focuc_015        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAGTTGTG-----------------------------------
Folag_001        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAGTTGTG-----------------------------------
Folag_002        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAGTTGTG-----------------------------------
Folag_005        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAGTTGTG-----------------------------------
Foniv_005        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAGTTGTG-----------------------------------
Foniv_020        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAGTTGTG-----------------------------------
Fomel_001        TCTTACTCCAGGTATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAGTTGTGA----------------------------------
Fomln_011        TCTTACTCCAGGTATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAGTTGTGA----------------------------------
Foniv_002        TCTTACTCCAGGTATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAGTTGTGA----------------------------------
Foniv_037        TCTTACTCCAGGTATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAGTTGTGA----------------------------------
Fomln_009        TCTTACTCCAGGTATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAGTTGTG-----------------------------------
Fomln_010        TCTTACTCCAGGTATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAGTTGTG-----------------------------------
Fopis_HDV247     TCTTACTCCAGGTATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAGTTGTG-----------------------------------
Forap_PHW815     TCTTACTCCAGGTATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAGTTGTG-----------------------------------
Focuc_018        TCTTACTCCAGGTATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAGTTGTGA----------------------------------
Focuc_021        TCTTACTCCAGGTATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAGTTGTG-----------------------------------
Focuc_030        TCTTACTCCAGGTATCAAGCTGGTGTGCCCTTGCCAATCCCTCCGCCTAAAGTTGTG-----------------------------------
Foniv_015        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCTAATCCCTCCACCTAAAATTGTG-----------------------------------
Foniv_019        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCTAATCCCTCCACCTAAAATTGTG-----------------------------------
Fomln_004        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCTAATCCCTCCACCTAAAATTGTGA----------------------------------
Fomln_006        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCTAATCCCTCCACCTAAAATTGTGA----------------------------------
Fomln_012        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCTAATCCCTCCACCTAAAATTGTGA----------------------------------
Fomln_016        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCTAATCCCTCCACCTAAAATTGTGA----------------------------------
Fomln_005        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCTAATCCCTCCACCTAAAATTGTG-----------------------------------
Fomln_013        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCTAATCCCTCCACCTAAAATTGTG-----------------------------------
Focub_B2         TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCTAATCCCTCCACCTAAAATTGTGACAGGGGTTATTAGTCGTGTTGGTCCTGTTATGTTGG
Focub_II5        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCTAATCCCTCCACCTAAAATTGTGACAGGGGTTATTAGTCGTGTTGGTCCTGTTATGTTGG
Focuc_011        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCTAATCCCTCCACCTAAAATTGTGACAGGGGTTATTAGTCGTGTTGGTCCTGTTATGTTGG
Focuc_013        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCTAATCCCTCCACCTAAAATTGTGACAGGGGTTATTAGTCGTGTTGGTCCTGTTATGTTG-
Fobul_G14        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCTAATCCCTCCACCTAAAATTGTGA----------------------------------
Focon_5176       TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCTAATCCCTCCACCTAAAATTGTG-----------------------------------
Focon_PHW808     TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCTAATCCCTCCACCTAAAATTGTGA----------------------------------
Focub_N2         TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCTAATCCCTCCACCTAAAATTGTGA----------------------------------
Folag_004        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCTAATCCCTCCACCTAAAATTGTG-----------------------------------
Foluf_002        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCTAATCCCTCCACCTAAAATTGTG-----------------------------------
Foluf_001        TCTTGCTCCAGAAATCAAGCTGGTGTGCCCTTGCTAATCCCTCCACCTAAAATTGTGA----------------------------------
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Marker #70

Alignment: /Users/Peter/Dropbox/_UvA/Shared_Martijn_Peter/03.f.sp.markers/figures/markers_aligned_150bp/nicename/004..66_hypothetical_pr
Seaview [blocks=100 fontsize=7 A4] on Fri Mar 10 14:21:42 2017

```
                1
Fotul_Tu67      ---------TAAGCAGAGGAGAATAATATTTAAATCCAATTATC-----TCATCTCCTCTGTTGTTTCTTTTTCTCT------------AACTACTTCAG
Fobul_G14       -----------------GGGAGAGAATACTTGAATATAAATAAATACCTCCTTTTCCTCTGCTGTTTATCATCTTC---------TTTGAACTACTTCAG
Fogla_G2        -----------------GGAGAGAATACTTGAATATAAATAAATACCTCCTTTTCCTCTGCTGTTTATCATCTTC---------TTTGAACTACTTCAG
Fogla_G76       -----------------GGAGAGAATACTTGAATATAAATAAATACCTCCTTTTCCTCTGCTGTTTATCATCTTC---------TTTGAACTACTTCAG
Folag_001       ------------------------------------------------------------------------------------------------------
Foniv_010_1     -----------------------GAATACTTAAATATAAATA-------CGGTCGTCTCTGCTATTTCTTTTCTCT------------AACTACTTCAC
Foniv_019_1     -----------------------GAATACTTAAATATAAATA-------CGGTCGTCTCTGCTATTTCTTTTCTCT------------AACTACTTCAC
Foniv_021_1     -----------------------GAATACTTAAATATAAATA-------CGGTCGTCTCTGCTATTTCTTTTCTCT------------AACTACTTCAC
Foniv_037_1     -----------------------GAATACTTAAATATAAATA-------CGGTCGTCTCTGCTATTTCTTTTCTCT------------AACTACTTCAC
Fomom_001       ----------------------AGAATACTTAAATATAAATA-------CGGTCGTCTCTGCTATTTCTTTTCTCT------------AACTACTTCAC
Fomom_004       ----------------------AGAATACTTAAATATAAATA-------CGGTCGTCTCTGCTATTTCTTTTCTCT------------AACTACTTCAC
Foniv_002_1     ----------------------AGAATACTTAAATATAAATA-------CGGTCGTCTCTGCTATTTCTTTTCTCT------------AACTACTTCAC
Foniv_015_1     ----------------------AGAATACTTAAATATAAATA-------CGGTCGTCTCTGCTATTTCTTTTCTCT------------AACTACTTCAC
Foniv_020_1     ------------------------------------------------------CTCTGCTATTTCTTTTCTCT------------AACTACTTCAC
Fomln_004       --------------------ATAGAATACTTAAATATAAATA-------CCGTCGCCTCTGCTATTTCTTTTCTCT------------AACTACTTCAC
Fomln_013       --------------------ATAGAATACTTAAATATAAATA-------CCGTCGCCTCTGCTATTTCTTTTCTCT------------AACTACTTCAC
Fomln_005       -------------------GATAGAATACTTAAATATAAATA-------CCGTCGCCTCTGCTATTTCTTTTCTCT------------AACTACTTCAC
Fomln_006       -------------------GATAGAATACTTAAATATAAATA-------CCGTCGCCTCTGCTATTTCTTTTCTCT------------AACTACTTCAC
Fomln_012       -------------------GATAGAATACTTAAATATAAATA-------CCGTCGCCTCTGCTATTTCTTTTCTCT------------AACTACTTCAC
Fomln_016       -------------------GATAGAATACTTAAATATAAATA-------CCGTCGCCTCTGCTATTTCTTTTCTCT------------AACTACTTCAC
Forcu_016       -------------------GATAGAATACTTAAATATAAATA-------CCGTCGCCTCTGCTATTTCTTTTCTCT------------AACTACTTCAC
Forcu_024       -------------------GATAGAATACTTAAATATAAATA-------CCGTCGCCTCTGCTATTTCTTTTCTCT------------AACTACTTCAC
Forcu_031       -------------------GATAGAATACTTAAATATAAATA-------CCGTCGCCTCTGCTATTTCTTTTCTCT------------AACTACTTCAC
Foniv_005_1     --------------------ATAGAATACTTAAATATAAATA-------CGGTCGTCTCTGCTATTTCTTTTCTCT------------AACTACTTCAC
Foluf_001_1     -------------------NNNNNNNNNNNNNNNNNNNNNN-------NNNNNNNCTCTGCTATTTCTTTTCTCT------------AACTACTTCAC
Foniv_013_1     ------------------------------------------------------CTCTGCTATTTCTTTTCTCT------------AACTACTTCAC
Forap_PHW815    -----------AACAAGGGGGGAGAACATATAAGTATAG----------CCATCTCATTTGCTCTTATTTCTCACT-----TTACTTCACTTCACTTCAT
Focuc_018       -----------------GGGGGAAAACATATAAGTATAG----------CCATCTCCTTCGCTCTTATTTCTCACTTCACTTGACTTCACTTCACTTCAC
Focuc_021       -----------------GGGGGAAAACATATAAGTATAG----------CCATCTCCTTCGCTCTTATTTCTCACTTCACTTGACTTCACTTCACTTCAC
Focuc_030       ----------------AGGGGGAAAACATATAAGTATAG----------CCATCTCCTTCGCTCTTATTTCTCACTTCACTTGACTTCACTTCACTTCAC
Focuc_037       -----------------GGGGGAAAACATATAAGTATAG----------CCATCTCCTTCGCTCTTATTTCTCACTTCACTTGACTTCACTTCACTTCAC
Focuc_001       -----------------GGGGGAAAACATATAAGTATAG----------CCATCTCCTTCGCTCTTATTTCTCACTTCACTTGACTTCACTTCACTTCAC
Focuc_013       -----------------GGGGGAAAACATATAAGTATAG----------CCATCTCCTTCGCTCTTATTTCTCACTTCACTTGACTTCACTTCACTTCAC
Focuc_011       ----------------AGGGGGAAAACATATAAGTATAG----------CCATCTCCTTCGCTCTTATTTCTCACTTCACTTGACTTCACTTCACTTCAC
Focuc_015       ----------------AGGGGGAAAACATATAAGTATAG----------CCATCTCCTTCGCTCTTATTTCTCACTTCACTTGACTTCACTTCACTTCAC
Focuc_035       ----------------AGGGGGAAAACATATAAGTATAG----------CCATCTCCTTCGCTCTTATTTCTCACTTCACTTGACTTCACTTCACTTCAC
Foluf_001_0     GTAAATATAAGAAGCAGGGGAGAGAATATTTAAATATAAATATCT----TTATCACCTCTGCTTTCTCATTTT----------------------CTTCAC
Foluf_002       -TAAATATAAGAAGCAGGGGAGAGAATATTTAAATATAAATATCT----TTATCACCTCTGCTTTCTCATTTT--------------------CTTCAC
Fopis_HDV247    ---------------------GAGAATATATAAATGCAG----------CTGCCTCCTCTGCTCTGATTTCTC--------------------ACTTCAC
Fomln_010       --------------------CGAGTATATATAAATGCAG----------CTGCCTCCTCTGCTCTGATTTCTC--------------------ACTTCAC
Foniv_002_0     --------------------CGAGTATATATAAATGCAG----------CTGCCTCCTCTGCTCTGATTTCTC--------------------ACTTCAC
Foniv_015_0     --------------------CGAGTATATATAAATGCAG----------CTGCCTCCTCTGCTCTGATTTCTC--------------------ACTTCAC
Foniv_021_0     --------------------CGAGTATATATAAATGCAG----------CTGCCTCCTCTGCTCTGATTTCTC--------------------ACTTCAC
Foniv_005_0     ---------------------GAGTATATATAAATGCAG----------CTGCCTCCTCTGCTCTGATTTCTC--------------------ACTTCAC
Foniv_010_0     ---------------------GAGTATATATAAATGCAG----------CTGCCTCCTCTGCTCTGATTTCTC--------------------ACTTCAC
Foniv_013_0     ---------------------GAGTATATATAAATGCAG----------CTGCCTCCTCTGCTCTGATTTCTC--------------------ACTTCAC
Foniv_019_0     ---------------------GAGTATATATAAATGCAG----------CTGCCTCCTCTGCTCTGATTTCTC--------------------ACTTCAC
Foniv_020_0     ---------------------GAGTATATATAAATGCAG----------CTGCCTCCTCTGCTCTGATTTCTC--------------------ACTTCAC
Foniv_037_0     ---------------------GAGTATATATAAATGCAG----------CTGCCTCCTCTGCTCTGATTTCTC--------------------ACTTCAC

              101
Fotul_Tu67      TTCATCAAGACATTACATCTCTTTGCCTCACAACTCTCTTTACTACCTAAGACGTCTCAT--------AGTC-------------CAAACCGTCACCATG
Fobul_G14       TTGATCAAGACATTCCATCTCTTTGCCTCACAGCTCTCTTTACTACCTAAGACTTATCAT--------AGTC-------------CAAACCGCCAACATG
Fogla_G2        TTGATCAAGACATTCCATCTCTTTGCCTCACAGCTCTCTTTACTACCTAAGACTTATCAT--------AGTC-------------CAAACCGCCAACATG
Fogla_G76       TTGATCAAGACATTCCATCTCTTTGCCTCACAGCTCTCTTTACTACCTAAGACTTATCAT--------AGTC-------------CAAACCGCCAACATG
Folag_001       ------------------------------------------------------------------------------CCAACACAAACCGCCAACATG
Foniv_010_1     TTTAACAAGATATTTCATCTCTTTGCCACACAACTCTCTTTACTACCCAAGACTTCTCAC--------AGTCCAAACCGCCAACACAAACCGCCAACATG
Foniv_019_1     TTTAACAAGATATTTCATCTCTTTGCCACACAACTCTCTTTACTACCCAAGACTTCTCAC--------AGTCCAAACCGCCAACACAAACCGCCAACATG
Foniv_021_1     TTTAACAAGATATTTCATCTCTTTGCCACACAACTCTCTTTACTACCCAAGACTTCTCAC--------AGTCCAAACCGCCAACACAAACCGCCAACATG
Foniv_037_1     TTTAACAAGATATTTCATCTCTTTGCCACACAACTCTCTTTACTACCCAAGACTTCTCAC--------AGTCCAAACCGCCAACACAAACCGCCAACATG
Fomom_001       TTTAACAAGATATTTCATCTCTTTGCCACACAACTCTCTTTACTACCCAAGACTTCTCAC--------AGTCCAAACCGCCAACACAAACCGCCAACATG
Fomom_004       TTTAACAAGATATTTCATCTCTTTGCCACACAACTCTCTTTACTACCCAAGACTTCTCAC--------AGTCCAAACCGCCAACACAAACCGCCAACATG
Foniv_002_1     TTTAACAAGATATTTCATCTCTTTGCCACACAACTCTCTTTACTACCCAAGACTTCTCAC--------AGTCCAAACCGCCAACACAAACCGCCAACATG
Foniv_015_1     TTTAACAAGATATTTCATCTCTTTGCCACACAACTCTCTTTACTACCCAAGACTTCTCAC--------AGTCCAAACCGCCAACACAAACCGCCAACATG
Foniv_020_1     TTTAACAAGATATTTCATCTCTTTGCCACACAACTCTCTTTACTACCCAAGACTTCTCAC--------AGTCCAAACCGCCAACACAAACCGCCAACATG
Fomln_004       TTTAACAAGATATTTCATCTCTTTGCCACACAACTCTCTTTACTACCCAAGACTTCTCAC--------AGTCCAAACCGCCAACACAAACCGCCAACATG
Fomln_013       TTTAACAAGATATTTCATCTCTTTGCCACACAACTCTCTTTACTACCCAAGACTTCTCAC--------AGTCCAAACCGCCAACACAAACCGCCAACATG
Fomln_005       TTTAACAAGATATTTCATCTCTTTGCCACACAACTCTCTTTACTACCCAAGACTTCTCAC--------AGTCCAAACCGCCAACACAAACCGCCAACATG
Fomln_006       TTTAACAAGATATTTCATCTCTTTGCCACACAACTCTCTTTACTACCCAAGACTTCTCAC--------AGTCCAAACCGCCAACACAAACCGCCAACATG
Fomln_012       TTTAACAAGATATTTCATCTCTTTGCCACACAACTCTCTTTACTACCCAAGACTTCTCAC--------AGTCCAAACCGCCAACACAAACCGCCAACATG
Fomln_016       TTTAACAAGATATTTCATCTCTTTGCCACACAACTCTCTTTACTACCCAAGACTTCTCAC--------AGTCCAAACCGCCAACACAAACCGCCAACATG
Forcu_016       TTTAACAAGATATTTCATCTCTTTGCCACACAACTCTCTTTACTACCCAAGACTTCTCAC--------AGTCCAAACCGCCAACACAAACCGCCAACATG
Forcu_024       TTTAACAAGATATTTCATCTCTTTGCCACACAACTCTCTTTACTACCCAAGACTTCTCAC--------AGTCCAAACCGCCAACACAAACCGCCAACATG
Forcu_031       TTTAACAAGATATTTCATCTCTTTGCCACACAACTCTCTTTACTACCCAAGACTTCTCAC--------AGTCCAAACCGCCAACACAAACCGCCAACATG
Foniv_005_1     TTTAACAAGATATTTCATCTCTTTGCCACACAACTCTCTTTACTACCCAAGACTTCTCAC--------AGTCCAAACCGCCAACACAAACCGCCAACATG
Foluf_001_1     TTTAACAAGATATTTCATCTCTTTGCCACACAACTCTCTTTACTACCCAAGACTTCTCAC--------AGTCCAAACCGCCAACACAAACCGCCAACATG
Foniv_013_1     TTTAACAAGATATTTCATCTCTTTGCCACACAACTCTCTTTACTACCCAAGACTTCTCAC--------AGTCCAAACCGCCAACACAAACCGCCAACATG
Forap_PHW815    TTCATTGGAACATTCTATCTCTCTCACTTATATCTC-CTTTGCCATCTAAGCCATTTTAC--------AATC-------------CAAACCACCACGATG
Focuc_018       TTCATTGGAACATTGTATCTCTCTCTCTTATATCTCCCATTGCCGCCTAAGCCATTTTAC--------AATC-------------CAAACCACCACGATG
Focuc_021       TTCATTGGAACATTGTATCTCTCTCTCTTATATCTCCCATTGCCGCCTAAGCCATTTTAC--------AATC-------------CAAACCACCACGATG
Focuc_030       TTCATTGGAACATTGTATCTCTCTCTCTTATATCTCCCATTGCCGCCTAAGCCATTTTAC--------AATC-------------CAAACCACCACGATG
Focuc_037       TTCATTGGAACATTGTATCTCTCTCTCTTATATCTCCCATTGCCGCCTAAGCCATTTTAC--------AATC-------------CAAACCACCACGATG
Focuc_001       TTCATTGGAACATTGTATCTCTCTCTCTTATATCTCCCATTGCCGCCTAAGCCATTTTAC--------AATC-------------CAAACCACCACGATG
Focuc_013       TTCATTGGAACATTGTATCTCTCTCTCTTATATCTCCCATTGCCGCCTAAGCCATTTTAC--------AATC-------------CAAACCACCACGATG
Focuc_011       TTCATTGGAACATTGTATCTCTCTCTCTTATATCTCCCATTGCCGCCTAAGCCATTTTAC--------AATC-------------CAAACCACCACGATG
Focuc_015       TTCATTGGAACATTGTATCTCTCTCTCTTATATCTCCCATTGCCGCCTAAGCCATTTTAC--------AATC-------------CAAACCACCACGATG
Focuc_035       TTCATTGGAACATTGTATCTCTCTCTCTTATATCTCCCATTGCCGCCTAAGCCATTTTAC--------AATC-------------CAAACCACCACGATG
Foluf_001_0     TTTATCAAGACATTCTATCTCTTTTACATACAGCTCTCTTTGTTACTTAAGACTTCTTCC--------AGT--------------TAAACCGCCAAGATG
Foluf_002       TTTATCAAGACATTCTATCTCTTTTACATACAGCTCTCTTTGTTACTTAAGACTTCTTCC--------AGT--------------TAAACCGCCAAGATG
Fopis_HDV247    TTCATTAGAACATTCCATCTGTCCTACTTATACCTCTCTTCAATACTTAACCTTCCTTTCCTTACCTAACTCCTAACCACTTTACCAAACCGCCACCATG
Fomln_010       TTCATTAGAACATTCCATCTGTCCTACTTATACCTCTCTTCAATACTTAACCTTCCTTTCCTTTCCTAGCTCCTAACCACTTTACCAAACCGCCACCATG
Foniv_002_0     TTCATTAGAACATTCCATCTGTCCTACTTATACCTCTCTTCAATACTTAACCTTCCTTTCCTTTCCTAGCTCCTAACCACTTTACCAAACCGCCACCATG
Foniv_015_0     TTCATTAGAACATTCCATCTGTCCTACTTATACCTCTCTTCAATACTTAACCTTCCTTTCCTTTCCTAGCTCCTAACCACTTTACCAAACCGCCACCATG
Foniv_021_0     TTCATTAGAACATTCCATCTGTCCTACTTATACCTCTCTTCAATACTTAACCTTCCTTTCCTTTCCTAGCTCCTAACCACTTTACCAAACCGCCACCATG
Foniv_005_0     TTCATTAGAACATTCCATCTGTCCTACTTATACCTCTCTTCAATACTTAACCTTCCTTTCCTTTCCTAGCTCCTAACCACTTTACCAAACCGCCACCATG
Foniv_010_0     TTCATTAGAACATTCCATCTGTCCTACTTATACCTCTCTTCAATACTTAACCTTCCTTTCCTTTCCTAGCTCCTAACCACTTTACCAAACCGCCACCATG
Foniv_013_0     TTCATTAGAACATTCCATCTGTCCTACTTATACCTCTCTTCAATACTTAACCTTCCTTTCCTTTCCTAGCTCCTAACCACTTTACCAAACCGCCACCATG
Foniv_019_0     TTCATTAGAACATTCCATCTGTCCTACTTATACCTCTCTTCAATACTTAACCTTCCTTTCCTTTCCTAGCTCCTAACCACTTTACCAAACCGCCACCATG
Foniv_020_0     TTCATTAGAACATTCCATCTGTCCTACTTATACCTCTCTTCAATACTTAACCTTCCTTTCCTTTCCTAGCTCCTAACCACTTTACCAAACCGCCACCATG
Foniv_037_0     TTCATTAGAACATTCCATCTGTCCTACTTATACCTCTCTTCAATACTTAACCTTCCTTTCCTTTCCTAGCTCCTAACCACTTTACCAAACCGCCACCATG
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Marker #66

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Fobul_G14      CGTCTGCTCATCACCTTGATGCCCTTCCTTCTACCCGTCATGGCCTCTGACCATAAGCAGTGCGACTGCCAGGTTAATAATGGCAA--------------
Fogla_G2       CGTCTGCTCATCACCTTGATGCCCTTCCTTCTACCCGTCATGGCCTCTGACCATAAGCAGTGCGACTGCCAGGTTAATAATGGCAA--------------
Fogla_G76      CGTCTGCTCATCACCTTGATGCCCTTCCTTCTACCCGTCATGGCCTCTGACCATAAGCAGTGCGACTGCCAGGTTAATAATGGCAA--------------
Folag_001      CGCCTGCTCATCACCTTGATGCCCTTCCTCCTACCCGTCATGGCCTCTAACCATAAGCAATGCGACTGCCAGGTTAATAATGGTAA--------------
Foniv_010_1    CGCCTGCTCATCACCTTGATGCCCTTCCTCCTACCCGTCATGGCCTCTAACCATAAGCAATGCGACTGCCAGGTTAATAATGGTAA--------------
Foniv_019_1    CGCCTGCTCATCACCTTGATGCCCTTCCTCCTACCCGTCATGGCCTCTAACCATAAGCAATGCGACTGCCAGGTTAATAATGGTAA--------------
Foniv_021_1    CGCCTGCTCATCACCTTGATGCCCTTCCTCCTACCCGTCATGGCCTCTAACCATAAGCAATGCGACTGCCAGGTTAATAATGGTAA--------------
Foniv_037_1    CGCCTGCTCATCACCTTGATGCCCTTCCTCCTACCCGTCATGGCCTCTAACCATAAGCAATGCGACTGCCAGGTTAATAATGGTAA--------------
Fomom_001      CGCCTGCTCATCACCTTGATGCCCTTCCTCCTACCCGTCATGGCCTCTAACCATAAGCAATGCGACTGCCAGGTTAATAATGGTAA--------------
Fomom_004      CGCCTGCTCATCACCTTGATGCCCTTCCTCCTACCCGTCATGGCCTCTAACCATAAGCAATGCGACTGCCAGGTTAATAATGGTAA--------------
Foniv_002_1    CGCCTGCTCATCACCTTGATGCCCTTCCTCCTACCCGTCATGGCCTCTAACCATAAGCAATGCGACTGCCAGGTTAATAATGGTAA--------------
Foniv_015_1    CGCCTGCTCATCACCTTGATGCCCTTCCTCCTACCCGTCATGGCCTCTAACCATAAGCAATGCGACTGCCAGGTTAATAATGGTAA--------------
Foniv_020_1    CGCCTGCTCATCACCTTGATGCCCTTCCTTCTACCCGTCATGGCCTCTGACCATAAGCAATGCGACTGCCAGGTTAATAATGGTAA--------------
Fomln_004      CGTCTGCTCATCACCTTGATGCCCTTCCTTCTACCCGTCATGGCCTCTGACCATAAGCAATGCGACTGCCAGGTTAATAATGGTAA--------------
Fomln_013      CGTCTGCTCATCACCTTGATGCCCTTCCTTCTACCCGTCATGGCCTCTGACCATAAGCAATGCGACTGCCAGGTTAATAATGGTAA--------------
Fomln_005      CGTCTGCTCATCACCTTGATGCCCTTCCTTCTACCCGTCATGGCCTCTGACCATAAGCAATGCGACTGCCAGGTTAATAATGGTAA--------------
Fomln_006      CGTCTGCTCATCACCTTGATGCCCTTCCTTCTACCCGTCATGGCCTCTGACCATAAGCAATGCGACTGCCAGGTTAATAATGGTAA--------------
Fomln_012      CGTCTGCTCATCACCTTGATGCCCTTCCTTCTACCCGTCATGGCCTCTGACCATAAGCAATGCGACTGCCAGGTTAATAATGGTAA--------------
Fomln_016      CGTCTGCTCATCACCTTGATGCCCTTCCTTCTACCCGTCATGGCCTCTGACCATAAGCAATGCGACTGCCAGGTTAATAATGGTAA--------------
Forcu_016      CGTCTGCTCATCACCTTGATGCCCTTCCTTCTACCCGTCATGGCCTCTGACCATAAGCAATGCGACTGCCAGGTTAATAATGGTAA--------------
Forcu_024      CGTCTGCTCATCACCTTGATGCCCTTCCTTCTACCCGTCATGGCCTCTGACCATAAGCAATGCGACTGCCAGGTTAATAATGGTAA--------------
Forcu_031      CGTCTGCTCATCACCTTGATGCCCTTCCTTCTACCCGTCATGGCCTCTGACCATAAGCAATGCGACTGCCAGGTTAATAATGGTAA--------------
Foniv_005_1    CGTCTGCTCATCACCTTGATGCCCTTCCTTCTACCCGTCATGGCCTCTGACCATAAGCAATGCGACTGCCAGGTTAATAATGGTAA--------------
Foluf_001_1    CGTCTGCTCATCACCTTGATGCCCTTCCTTCTACCCGTCATGGCCTCTGACCATAAGCAATGCGACTGCCAGGTTAATAATGGTAA--------------
Foniv_013_1    CGTCTGCTCATCACCTTGATGCCCTTCCTTCTACCCGTCATGGCCTCTGACCATAAGCAATGCGACTGCCAGGTTAATAATGGTAA--------------
Forap_PHW815   CGT---CTTATCGCCTTAATGCCCTTCCTTCTCCCGGTTATGGCCAGAATGCACAAGCAGTGTATCTGTAATGTCTACGATGGTAA--------------
Focuc_018      CGT---CTTATCGCCTTAATGCCCTTCCTTCTCCCGTTATGGCCAGAGATCACAAGCAGTGTGTCTGTAATGTCTACGATGGTAA--------------
Focuc_021      CGT---CTTATCGCCTTAATGCCCTTCCTTCTCCCGTTATGGCCAGAGATCACAAGCAGTGTGTCTGTAATGTCTACGATGGTAA--------------
Focuc_030      CGT---CTTATCGCCTTAATGCCCTTCCTTCTCCCGTTATGGCCAGAGATCACAAGCAGTGTGTCTGTAATGTCTACGATGGTAA--------------
Focuc_037      CGT---CTTATCGCCTTAATGCCCTTCCTTCTCCCGTTATGGCCAGAGATCACAAGCAGTGTGTCTGTAATGTCTACGATGGTAA--------------
Focuc_001      CGT---CTTATCGCCTTAATGCCCTTCCTTCTCCCGTTATGGCCAGAGATCACAAGCAGTGTGTCTGTAATGTCTACGATGGTAA--------------
Focuc_013      CGT---CTTATCGCCTTAATGCCCTTCCTTCTCCCGTTATGGCCAGAGATCACAAGCAGTGTGTCTGTAATGTCTACGATGGTAA--------------
Focuc_011      CGT---CTTATCGCCTTAATGCCCTTCCTTCTCCCGTTATGGCCAGAGATCACAAGCAGTGTGTCTGTAATGTCTACGATGGTAA--------------
Focuc_015      CGT---CTTATCGCCTTAATGCCCTTCCTTCTCCCGTTATGGCCAGAGATCACAAGCAGTGTGTCTGTAATGTCTACGATGGTAA--------------
Focuc_035      CGT---CTTATCGCCTTAATGCCCTTCCTTCTCCCGTTATGGCCAGAGATCACAAGCAGTGTGTCTGTAATGTCTACGATGGTAA--------------
Foluf_001_0    CGTCTGCTTATCACTTTGATGCCCTTCCTTCTCCCCGTCCTGGCCTCTGATCACAAGCAGTGTGATTGCCAGATCAACAATGGCAA--------------
Foluf_002      CGTCTGCTTATCACTTTGATGCCCTTCCTTCTCCCCGTCCTGGCCTCTGATCACAAGCAGTGTGATTGCCAGATCAACAATGGCAA--------------
Fopis_HDV247   CGTCTTCTTATCACCTTTATGCCCTTCCTTCTCCCCGTCCTGGCCTCCAACCATAAGCAGTGCGATTGCAAGATCAACAATGGTGACGTCAAGAATGAAG
Fomln_010      CGTCTTCTTATCACCTTTATGCCCTTCCTTCTCCCCGTCCTGGCCTCCGACCATAAGCAGTGCGATTGCAAGATCAACAATGGTGACGTCAAGAATGAAG
Foniv_002_0    CGTCTTCTTATCACCTTTATGCCCTTCCTTCTCCCCGTCCTGGCCTCCGACCATAAGCAGTGCGATTGCAAGATCAACAATGGTGACGTCAAGAATGAAG
Foniv_015_0    CGTCTTCTTATCACCTTTATGCCCTTCCTTCTCCCCGTCCTGGCCTCCGACCATAAGCAGTGCGATTGCAAGATCAACAATGGTGACGTCAAGAATGAAG
Foniv_021_0    CGTCTTCTTATCACCTTTATGCCCTTCCTTCTCCCCGTCCTGGCCTCCGACCATAAGCAGTGCGATTGCAAGATCAACAATGGTGACGTCAAGAATGAAG
Foniv_005_0    CGTCTTCTTATCACCTTTATGCCCTTCCTTCTCCCCGTCCTGGCCTCCGACCATAAGCAGTGCGATTGCAAGATCAACAATGGTGACGTCAAGAATGAAG
Foniv_010_0    CGTCTTCTTATCACCTTTATGCCCTTCCTTCTCCCCGTCCTGGCCTCCGACCATAAGCAGTGCGATTGCAAGATCAACAATGGTGACGTCAAGAATGAAG
Foniv_013_0    CGTCTTCTTATCACCTTTATGCCCTTCCTTCTCCCCGTCCTGGCCTCCGACCATAAGCAGTGCGATTGCAAGATCAACAATGGTGACGTCAAGAATGAAG
Foniv_019_0    CGTCTTCTTATCACCTTTATGCCCTTCCTTCTCCCCGTCCTGGCCTCCGACCATAAGCAGTGCGATTGCAAGATCAACAATGGTGACGTCAAGAATGAAG
Foniv_020_0    CGTCTTCTTATCACCTTTATGCCCTTCCTTCTCCCCGTCCTGGCCTCCGACCATAAGCAGTGCGATTGCAAGATCAACAATGGTGACGTCAAGAATGAAG
Foniv_037_0    CGTCTTCTTATCACCTTTATGCCCTTCCTTCTCCCCGTCCTGGCCTCCGACCATAAGCAGTGCGATTGCAAGATCAACAATGGTGACGTCAAGAATGAAG

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Fotul_Tu67     -CGGCTGGAAATATGACTGGCAGCTTACGTTCAATGTCTGTGTGGACAACTATAGTGAAACTGTATGCCTTACTCATCTTTTAACCCTTTTAGTATAATA
Fobul_G14      -TGGCTGGAAATATGACTGGCAGCTTACGTTCAATGCCTGTGTAAACAACTATGGTCAAACTGTATGCCTTACTCATCTT-TTCCA-ATCTAGTATAATG
Fogla_G2       -TGGCTGGAAATATGACTGGCAGCTTACGTTCAATGCCTGTGTAAACAACTATGGTCAAACTGTATGCCTTACTCATCTT-TTCCA-ATCTAGTATAATG
Fogla_G76      -TGGCTGGAAATATGACTGGCAGCTTACGTTCAATGCCTGTGTAAACAACTATGGTCAAACTGTATGCCTTACTCATCTT-TTCCA-ATCTAGTATAATG
Folag_001      -GGGCTGGGAATATGACTGGCAGCTTACGTTCAATGCCTGCGTGGACAACTATAGCAGAACTGTATGCCTTACTCATCTTGTTCCA-ATTTAGTATAATG
Foniv_010_1    -GGGCTGGGAATATGACTGGCAGCTTACGTTCAATGCCTGCGTGGACAACTATAGCAGAACTGTATGCCTTACTCATCTTGTTCCA-ATTTAGTATAATG
Foniv_019_1    -GGGCTGGGAATATGACTGGCAGCTTACGTTCAATGCCTGCGTGGACAACTATAGCAGAACTGTATGCCTTACTCATCTTGTTCCA-ATTTAGTATAATG
Foniv_021_1    -GGGCTGGGAATATGACTGGCAGCTTACGTTCAATGCCTGCGTGGACAACTATAGCAGAACTGTATGCCTTACTCATCTTGTTCCA-ATTTAGTATAATG
Foniv_037_1    -GGGCTGGGAATATGACTGGCAGCTTACGTTCAATGCCTGCGTGGACAACTATAGCAGAACTGTATGCCTTACTCATCTTGTTCCA-ATTTAGTATAATG
Fomom_001      -GGGCTGGGAATATGACTGGCAGCTTACGTTCAATGCCTGCGTGGACAACTATAGCAGAACTGTATGCCTTACTCATCTTGTTCCA-ATTTAGTATAATG
Fomom_004      -GGGCTGGGAATATGACTGGCAGCTTACGTTCAATGCCTGCGTGGACAACTATAGCAGAACTGTATGCCTTACTCATCTTGTTCCA-ATTTAGTATAATG
Foniv_002_1    -GGGCTGGGAATATGACTGGCAGCTTACGTTCAATGCCTGCGTGGACAACTATAGCAGAACTGTATGCCTTACTCATCTTGTTCCA-ATTTAGTATAATG
Foniv_015_1    -GGGCTGGGAATATGACTGGCAGCTTACGTTCAATGCCTGCGTGGACAACTATAGCAGAACTGTATGCCTTACTCATCTTGTTCCA-ATTTAGTATAATG
Foniv_020_1    -GGGCTGGGAATATGACTGGCAGCTTACGTTTAATGCCTGCGTGGACAACTATAGCAGAACTGTATGCCTTACTCATCTTGTTCCA-ATTTAGTATAATG
Fomln_004      -GGGCTGGGAATATGACTGGCAGCTTACGTTTAATGCCTGCGTGGACAACTATAGCAGAACTGTATGCCTTACTCATCTTGTTCCA-ATTTAGTATAATG
Fomln_013      -GGGCTGGGAATATGACTGGCAGCTTACGTTTAATGCCTGCGTGGACAACTATAGCAGAACTGTATGCCTTACTCATCTTGTTCCA-ATTTAGTATAATG
Fomln_005      -GGGCTGGGAATATGACTGGCAGCTTACGTTTAATGCCTGCGTGGACAACTATAGCAGAACTGTATGCCTTACTCATCTTGTTCCA-ATTTAGTATAATG
Fomln_006      -GGGCTGGGAATATGACTGGCAGCTTACGTTTAATGCCTGCGTGGACAACTATAGCAGAACTGTATGCCTTACTCATCTTGTTCCA-ATTTAGTATAATG
Fomln_012      -GGGCTGGGAATATGACTGGCAGCTTACGTTTAATGCCTGCGTGGACAACTATAGCAGAACTGTATGCCTTACTCATCTTGTTCCA-ATTTAGTATAATG
Fomln_016      -GGGCTGGGAATATGACTGGCAGCTTACGTTTAATGCCTGCGTGGACAACTATAGCAGAACTGTATGCCTTACTCATCTTGTTCCA-ATTTAGTATAATG
Forcu_016      -GGGCTGGGAATATGACTGGCAGCTTACGTTTAATGCCTGCGTGGACAACTATAGCAGAACTGTATGCCTTACTCATCTTGTTCCA-ATTTAGTATAATG
Forcu_024      -GGGCTGGGAATATGACTGGCAGCTTACGTTTAATGCCTGCGTGGACAACTATAGCAGAACTGTATGCCTTACTCATCTTGTTCCA-ATTTAGTATAATG
Forcu_031      -GGGCTGGGAATATGACTGGCAGCTTACGTTTAATGCCTGCGTGGACAACTATAGCAGAACTGTATGCCTTACTCATCTTGTTCCA-ATTTAGTATAATG
Foniv_005_1    -GGGCTGGGAATATGACTGGCAGCTTACGTTTAATGCCTGCGTGGACAACTATAGCAGAACTGTATGCCTTACTCATCTTGTTCCA-ATTTAGTATAATG
Foluf_001_1    -GGGCTGGGAATATGACTGGCAGCTTACGTTTAATGCCTGCGTGGACAACTATAGCAGAACTGTATGCCTTACTCATCTTGTTCCA-ATTTAGTATAATG
Foniv_013_1    -GGGCTGGGAATATGACTGGCAGCTTACGTTTAATGCCTGCGTGGACAACTATAGCAGAACTGTATGCCTTACTCATCTTGTTCCA-ATTTAGTATAATG
Forap_PHW815   -GAGCTGGAAAGGTGACTGGCAGCTCACTTTTAACGCCTGTACCAACAATTACCCCAAGACTGTATGCTCTACTGATAATGTAGCACATTTGACCTTACG
Focuc_018      -GAGCTGGAAAGGTGACTGGCAGCTCACTTTTAACGCCTGTACCAACAACTACCCCAAGACTGTATGCTCTACTGATAATGTAGTATATTTTACCTTAAG
Focuc_021      -GAGCTGGAAAGGTGACTGGCAGCTCACTTTTAACGCCTGTACCAACAACTACCCCAAGACTGTATGCTCTACTGATAATGTAGTATATTTTACCTTAAG
Focuc_030      -GAGCTGGAAAGGTGACTGGCAGCTCACTTTTAACGCCTGTACCAACAACTACCCCAAGACTGTATGCTCTACTGATAATGTAGTATATTTTACCTTAAG
Focuc_037      -GAGCTGGAAAGGTGACTGGCAGCTCACTTTTAACGCCTGTACCAACAACTACCCCAAGACTGTATGCTCTACTGATAATGTAGTATATTTTACCTTAAG
Focuc_001      -GAGCTGGAAAGGTGACTGGCAGCTCACTTTTAACGCCTGTACCAACAACTACCCCAAGACTGTATGCTCTACTGATAATGTAGTATATTTTACCTTAAG
Focuc_013      -GAGCTGGAAAGGTGACTGGCAGCTCACTTTTAACGCCTGTACCAACAACTACCCCAAGACTGTATGCTCTACTGATAATGTAGTATATTTTACCTTAAG
Focuc_011      -GAGCTGGAAAGGTGACTGGCAGCTCACTTTTAACGCCTGTACCAACAACTACCCCAAGACTGTATGCTCTACTGATAATGTAGTATATTTTACCTTAAG
Focuc_015      -GAGCTGGAAAGGTGACTGGCAGCTCACTTTTAACGCCTGTACCAACAACTACCCCAAGACTGTATGCTCTACTGATAATGTAGTATATTTTACCTTAAG
Focuc_035      -GAGCTGGAAAGGTGACTGGCAGCTCACTTTTAACGCCTGTACCAACAACTACCCCAAGACTGTATGCTCTACTGATAATGTAGTATATTTTACCTTAAG
Foluf_001_0    -CGGCTGGAAATACGACTGGCAGCTCACTTTCAACGCCTGCACAAACAACTACCCCAAGACTGTATGCTCTACACATCTTGCAGCAAATTTGATCTTATG
Foluf_002      -CGGCTGGAAATACGACTGGCAGCTCACTTTCAACGCCTGCACAAACAACTACCCCAAGACTGTATGCTCTACACATCTTGCAGCAAATTTGATCTTATG
Fopis_HDV247   ACGACTGGAAATACGACTGGCAGCTCACTTTCAACGTCTGCACAGACAACTACCCCAAGACTGTATGCTCTACTCATCTTACAACACATTTGATCTTGTG
Fomln_010      GCGACTGGAAATACGATTGGCAGCTCACTTTCAACGTCTGCACAAACAACTACCCCAAGACTGTATGCTCTACTCATCTTACAACACATTTGATCTTGTG
Foniv_002_0    GCGACTGGAAATACGATTGGCAGCTCACTTTCAACGTCTGCACAAACAACTACCCCAAGACTGTATGCTCTACTCATCTTACAACACATTTGATCTTGTG
Foniv_015_0    GCGACTGGAAATACGATTGGCAGCTCACTTTCAACGTCTGCACAAACAACTACCCCAAGACTGTATGCTCTACTCATCTTACAACACATTTGATCTTGTG
Foniv_021_0    GCGACTGGAAATACGATTGGCAGCTCACTTTCAACGTCTGCACAAACAACTACCCCAAGACTGTATGCTCTACTCATCTTACAACACATTTGATCTTGTG
Foniv_005_0    GCGACTGGAAATACGATTGGCAGCTCACTTTCAACGTCTGCACAAACAACTACCCCAAGACTGTATGCTCTACTCATCTTACAACACATTTGATCTTGTG
Foniv_010_0    GCGACTGGAAATACGATTGGCAGCTCACTTTCAACGTCTGCACAAACAACTACCCCAAGACTGTATGCTCTACTCATCTTACAACACATTTGATCTTGTG
Foniv_013_0    GCGACTGGAAATACGATTGGCAGCTCACTTTCAACGTCTGCACAAACAACTACCCCAAGACTGTATGCTCTACTCATCTTACAACACATTTGATCTTGTG
Foniv_019_0    GCGACTGGAAATACGATTGGCAGCTCACTTTCAACGTCTGCACAAACAACTACCCCAAGACTGTATGCTCTACTCATCTTACAACACATTTGATCTTGTG
Foniv_020_0    GCGACTGGAAATACGATTGGCAGCTCACTTTCAACGTCTGCACAAACAACTACCCCAAGACTGTATGCTCTACTCATCTTACAACACATTTGATCTTGTG
Foniv_037_0    GCGACTGGAAATACGATTGGCAGCTCACTTTCAACGTCTGCACAAACAACTACCCCAAGACTGTATGCTCTACTCATCTTACAACACATTTGATCTTGTG
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Marker #66

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Fotul_Tu67    CTAATACCACATT-AACAGGCTGAGTACGATAACGGTGCTGGGCGTGTAAGTATTAC----TTAACTGCATTTTCTAGCACGTTTTACTAATGT-TATAG
Fobul_G14     CTAATATCCCATTCAACAGGCTGAATACGATAATGGTGCTGGGCGTGTAAGTTTTGC----TTAACTATATTT--TAGCACGTCTTACTAATTT-TATAG
Fogla_G2      CTAATATCCCATTCAACAGGCTGAATACGATAATGGTGCTGGGCGTGTAAGTTTTGC----TTAACTATATTT--TAGCACGTCTTACTAATTT-TATAG
Fogla_G76     CTAATATCCCATTCAACAGGCTGAATACGATAATGGTGCTGGGCGTGTAAGTTTTGC----TTAACTATATTT--TAGCACGTCTTACTAATTT-TATAG
Folag_001     CTAATATCCCATTCAACAGGCTGAATACGATACTGGTGCTGGGCGTGTAAGTACTACGTGATTAACTGCATTTTCTAGCACATTTTAATGATGT-TATAG
Foniv_010_1   CTAATATCCCATTCAACAGGCTGAATACGATACTGGTGCTGGGCGTGTAAGTACTACGTGATTAACTGCATTTTCTAGCACATTTTAATGATGT-TATAG
Foniv_019_1   CTAATATCCCATTCAACAGGCTGAATACGATACTGGTGCTGGGCGTGTAAGTACTACGTGATTAACTGCATTTTCTAGCACATTTTAATGATGT-TATAG
Foniv_021_1   CTAATATCCCATTCAACAGGCTGAATACGATACTGGTGCTGGGCGTGTAAGTACTACGTGATTAACTGCATTTTCTAGCACATTTTAATGATGT-TATAG
Foniv_037_1   CTAATATCCCATTCAACAGGCTGAATACGATACTGGTGCTGGGCGTGTAAGTACTACGTGATTAACTGCATTTTCTAGCACATTTTAATGATGT-TATAG
Fomom_001     CTAATATCCCATTCAACAGGCTGAATACGATACTGGTGCTGGGCGTGTAAGTACTACGTGATTAACTGCATTTTCTAGCACATTTTAATGATGT-TATAG
Fomom_004     CTAATATCCCATTCAACAGGCTGAATACGATACTGGTGCTGGGCGTGTAAGTACTACGTGATTAACTGCATTTTCTAGCACATTTTAATGATGT-TATAG
Foniv_002_1   CTAATATCCCATTCAACAGGCTGAATACGATACTGGTGCTGGGCGTGTAAGTACTACGTGATTAACTGCATTTTCTAGCACATTTTAATGATGT-TATAG
Foniv_015_1   CTAATATCCCATTCAACAGGCTGAATACGATACTGGTGCTGGGCGTGTAAGTACTACGTGATTAACTGCATTTTCTAGCACATTTTAATGATGT-TATAG
Foniv_020_1   CTAATATCCCATTCAACAGGCTGAATACGATACTGGTGCTGGGCGTGTAAGTACTACGTGATTAACTGCATTTTCTAGCACATTTTAATGATGT-TATAG
Fomln_004     CTAATATCCCATTCAACAGGCTGAATACGATACTGGTGCTGGGCGTGTAAGTACTACGTGATTAACTGCATTTTCTAGCACATTTTAATGATGT-TATAG
Fomln_013     CTAATATCCCATTCAACAGGCTGAATACGATACTGGTGCTGGGCGTGTAAGTACTACGTGATTAACTGCATTTTCTAGCACATTTTAATGATGT-TATAG
Fomln_005     CTAATATCCCATTCAACAGGCTGAATACGATACTGGTGCTGGGCGTGTAAGTACTACGTGATTAACTGCATTTTCTAGCACATTTTAATGATGT-TATAG
Fomln_006     CTAATATCCCATTCAACAGGCTGAATACGATACTGGTGCTGGGCGTGTAAGTACTACGTGATTAACTGCATTTTCTAGCACATTTTAATGATGT-TATAG
Fomln_012     CTAATATCCCATTCAACAGGCTGAATACGATACTGGTGCTGGGCGTGTAAGTACTACGTGATTAACTGCATTTTCTAGCACATTTTAATGATGT-TATAG
Fomln_016     CTAATATCCCATTCAACAGGCTGAATACGATACTGGTGCTGGGCGTGTAAGTACTACGTGATTAACTGCATTTTCTAGCACATTTTAATGATGT-TATAG
Forcu_016     CTAATATCCCATTCAACAGGCTGAATACGATACTGGTGCTGGGCGTGTAAGTACTACGTGATTAACTGCATTTTCTAGCACATTTTAATGATGT-TATAG
Forcu_024     CTAATATCCCATTCAACAGGCTGAATACGATACTGGTGCTGGGCGTGTAAGTACTACGTGATTAACTGCATTTTCTAGCACATTTTAATGATGT-TATAG
Forcu_031     CTAATATCCCATTCAACAGGCTGAATACGATACTGGTGCTGGGCGTGTAAGTACTACGTGATTAACTGCATTTTCTAGCACATTTTAATGATGT-TATAG
Foniv_005_1   CTAATATCCCATTCAACAGGCTGAATACGATACTGGTGCTGGGCGTGTAAGTACTACGTGATTAACTGCATTTTCTAGCACATTTTAATGATGT-TATAG
Foluf_001_1   CTAATATCCCATTCAACAGGCTGAATACGATACTGGTGCTGGGCGTGTAAGTACTACGTGATTAACTGCATTTTCTAGCACATTTTAATGATGT-TATAG
Foniv_013_1   CTAATATCCCATTCAACAGGCTGAATACGATACTGGTGCTGGGCGTGTAAGTACTACGTGATTAACTGCATTTTCTAGCACATTTTAATGATGT-TATAG
Forap_PHW815  CTAACATCCTGTTTAATAGACTGAATATGATGGTGGTGCAGCACGTGTAAGTATCGC----CTAACTATATCATATATTACTTTTTATTGATTTATATAG
Focuc_018     CTAACATCCTGTTTAATAGGCTGAATATGATGGTGGTTCAGCACGTGTAAGTATCGC----CTAACTATATCATATATTACTTTTTATTGACTTGTATAG
Focuc_021     CTAACATCCTGTTTAATAGGCTGAATATGATGGTGGTTCAGCACGTGTAAGTATCGC----CTAACTATATCATATATTACTTTTTATTGACTTGTATAG
Focuc_030     CTAACATCCTGTTTAATAGGCTGAATATGATGGTGGTTCAGCACGTGTAAGTATCGC----CTAACTATATCATATATTACTTTTTATTGACTTGTATAG
Focuc_037     CTAACATCCTGTTTAATAGGCTGAATATGATGGTGGTTCAGCACGTGTAAGTATCGC----CTAACTATATCATATATTACTTTTTATTGACTTGTATAG
Focuc_001     CTAACATCCTGTTTAATAGGCTGAATATGATGGTGGTTCAGCACGTGTAAGTATCGC----CTAACTATATCATATATTACTTTTTATTGACTTGTATAG
Focuc_013     CTAACATCCTGTTTAATAGGCTGAATATGATGGTGGTTCAGCACGTGTAAGTATCGC----CTAACTATATCATATATTACTTTTTATTGACTTGTATAG
Focuc_011     CTAACATCCTGTTTAATAGGCTGAATATGATGGTGGTTCAGCACGTGTAAGTATCGC----CTAACTATATCATATATTACTTTTTATTGACTTGTATAG
Focuc_015     CTAACATCCTGTTTAATAGGCTGAATATGATGGTGGTTCAGCACGTGTAAGTATCGC----CTAACTATATCATATATTACTTTTTATTGACTTGTATAG
Focuc_035     CTAACATCCTGTTTAATAGGCTGAATATGATGGTGGTTCAGCACGTGTAAGTATCGC----CTAACTATATCATATATTACTTTTTATTGACTTGTATAG
Foluf_001_0   CTAACATCCTATTTAACAGGCCGAATATGACAGCGGCTCTGGACGTGTAAGTATTTC----TCAACCATATTTTATAGTACGTTTTATTAATTCCCATAG
Foluf_002     CTAACATCCTATTTAACAGGCCGAATATGACAGCGGCTCTGGACGTGTAAGTATTTC----TCAACCATATTTTATAGTACGTTTTATTAATTCCCATAG
Fopis_HDV247  CTAACATCCTATTTAACAGGCCGAATATGATAATGGCTCTGGACGAGTAAGTATTTC----TTAACTATATTTTATATTATGTTTTATTAATTCTCATAG
Fomln_010     CTAACATCCCATTTAACAGGCCGAATATGATAATGGCTCTGGACGAGTAAGTATTTC----TTAACTATATGTTATATTATGTTTTATTAATTCTCATAG
Foniv_002_0   CTAACATCCCATTTAACAGGCCGAATATGATAATGGCTCTGGACGAGTAAGTATTTC----TTAACTATATGTTATATTATGTTTTATTAATTCTCATAG
Foniv_015_0   CTAACATCCCATTTAACAGGCCGAATATGATAATGGCTCTGGACGAGTAAGTATTTC----TTAACTATATGTTATATTATGTTTTATTAATTCTCATAG
Foniv_021_0   CTAACATCCCATTTAACAGGCCGAATATGATAATGGCTCTGGACGAGTAAGTATTTC----TTAACTATATGTTATATTATGTTTTATTAATTCTCATAG
Foniv_005_0   CTAACATCCCATTTAACAGGCCGAATATGATAATGGCTCTGGACGAGTAAGTATTTC----TTAACTATATGTTATATTATGTTTTATTAATTCTCATAG
Foniv_010_0   CTAACATCCCATTTAACAGGCCGAATATGATAATGGCTCTGGACGAGTAAGTATTTC----TTAACTATATGTTATATTATGTTTTATTAATTCTCATAG
Foniv_013_0   CTAACATCCCATTTAACAGGCCGAATATGATAATGGCTCTGGACGAGTAAGTATTTC----TTAACTATATGTTATATTATGTTTTATTAATTCTCATAG
Foniv_019_0   CTAACATCCCATTTAACAGGCCGAATATGATAATGGCTCTGGACGAGTAAGTATTTC----TTAACTATATGTTATATTATGTTTTATTAATTCTCATAG
Foniv_020_0   CTAACATCCCATTTAACAGGCCGAATATGATAATGGCTCTGGACGAGTAAGTATTTC----TTAACTATATGTTATATTATGTTTTATTAATTCTCATAG
Foniv_037_0   CTAACATCCCATTTAACAGGCCGAATATGATAATGGCTCTGGACGAGTAAGTATTTC----TTAACTATATGTTATATTATGTTTTATTAATTCTCATAG

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Fotul_Tu67    TGCATTGCCAATCCCCATACCAGACTTGATGGCGACCGTTTCTACAACAACTGCAAGGCTTTAGCTTCAAAGGGATACTACCCAGTTGTTAATGGCGCTA
Fobul_G14     TGTATTGCCAATCCCCATACCAGACTTGATGGCGACCGTTTCTACGACAACTGCAAGGATTTAGCTTCAAAGGGATACTACCCAGTTGTTAATGGCGCTA
Fogla_G2      TGTATTGCCAATCCCCATACCAGACTTGATGGCGACCGTTTCTACGACAACTGCAAGGATTTAGCTTCAAAGGGATACTACCCAGTTGTTAATGGCGCTA
Fogla_G76     TGTATTGCCAATCCCCATACCAGACTTGATGGCGACCGTTTCTACGACAACTGCAAGGATTTAGCTTCAAAGGGATACTACCCAGTTGTTAATGGCGCTA
Folag_001     TGCATTGCCAATCCCCACACCAGACTTGATGGCGATCGTTTCTACAACAACTGCAAGTTTTTAGCTAAAAATGGATACTACCCAGTTGTTAATGGCGCTA
Foniv_010_1   TGCATTGCCAATCCCCACACCAGACTTGATGGCGATCGTTTCTACAACAACTGCAAGTTTTTAGCTAAAAATGGATACTACCCAGTTGTTAATGGCGCTA
Foniv_019_1   TGCATTGCCAATCCCCACACCAGACTTGATGGCGATCGTTTCTACAACAACTGCAAGTTTTTAGCTAAAAATGGATACTACCCAGTTGTTAATGGCGCTA
Foniv_021_1   TGCATTGCCAATCCCCACACCAGACTTGATGGCGATCGTTTCTACAACAACTGCAAGTTTTTAGCTAAAAATGGATACTACCCAGTTGTTAATGGCGCTA
Foniv_037_1   TGCATTGCCAATCCCCACACCAGACTTGATGGCGATCGTTTCTACAACAACTGCAAGTTTTTAGCTAAAAATGGATACTACCCAGTTGTTAATGGCGCTA
Fomom_001     TGCATTGCCAATCCCCACACCAGACTTGATGGCGATCGTTTCTACAACAACTGCAAGTTTTTAGCTAAAAATGGATACTACCCAGTTGTTAATGGCGCTA
Fomom_004     TGCATTGCCAATCCCCACACCAGACTTGATGGCGATCGTTTCTACAACAACTGCAAGTTTTTAGCTAAAAATGGATACTACCCAGTTGTTAATGGCGCTA
Foniv_002_1   TGCATTGCCAATCCCCACACCAGACTTGATGGCGATCGTTTCTACAACAACTGCAAGTTTTTAGCTAAAAATGGATACTACCCAGTTGTTAATGGCGCTA
Foniv_015_1   TGCATTGCCAATCCCCACACCAGACTTGATGGCGATCGTTTCTACAACAACTGCAAGTTTTTAGCTAAAAATGGATACTACCCAGTTGTTAATGGCGCTA
Foniv_020_1   TGCATTGCCAATCCCCACACCAGACTTGATGGCGATCGTTTCTACAACAACTGCAAGTTTTTAGCTAAAAATGGATACTACCCAGTTGTTAATGGCGCTA
Fomln_004     TGCATTGCCAATCCCCACACCAGACTTGATGGCGATCGTTTCTACAACAACTGCAAGTTTTTAGCTAAAAATGGATACTACCCAGTTGTTAATGGCGCTA
Fomln_013     TGCATTGCCAATCCCCACACCAGACTTGATGGCGATCGTTTCTACAACAACTGCAAGTTTTTAGCTAAAAATGGATACTACCCAGTTGTTAATGGCGCTA
Fomln_005     TGCATTGCCAATCCCCACACCAGACTTGATGGCGATCGTTTCTACAACAACTGCAAGTTTTTAGCTAAAAATGGATACTACCCAGTTGTTAATGGCGCTA
Fomln_006     TGCATTGCCAATCCCCACACCAGACTTGATGGCGATCGTTTCTACAACAACTGCAAGTTTTTAGCTAAAAATGGATACTACCCAGTTGTTAATGGCGCTA
Fomln_012     TGCATTGCCAATCCCCACACCAGACTTGATGGCGATCGTTTCTACAACAACTGCAAGTTTTTAGCTAAAAATGGATACTACCCAGTTGTTAATGGCGCTA
Fomln_016     TGCATTGCCAATCCCCACACCAGACTTGATGGCGATCGTTTCTACAACAACTGCAAGTTTTTAGCTAAAAATGGATACTACCCAGTTGTTAATGGCGCTA
Forcu_016     TGCATTGCCAATCCCCACACCAGACTTGATGGCGATCGTTTCTACAACAACTGCAAGTTTTTAGCTAAAAATGGATACTACCCAGTTGTTAATGGCGCTA
Forcu_024     TGCATTGCCAATCCCCACACCAGACTTGATGGCGATCGTTTCTACAACAACTGCAAGTTTTTAGCTAAAAATGGATACTACCCAGTTGTTAATGGCGCTA
Forcu_031     TGCATTGCCAATCCCCACACCAGACTTGATGGCGATCGTTTCTACAACAACTGCAAGTTTTTAGCTAAAAATGGATACTACCCAGTTGTTAATGGCGCTA
Foniv_005_1   TGCATTGCCAATCCCCACACCAGACTTGATGGCGATCGTTTCTACAACAACTGCAAGTTTTTAGCTAAAAATGGATACTACCCAGTTGTTAATGGCGCTA
Foluf_001_1   TGCATTGCCAATCCCCACACCAGACTTGATGGCGATCGTTTCTACAACAACTGCAAGTTTTTAGCTAAAAATGGATACTACCCAGTTGTTAATGGCGCTA
Foniv_013_1   TGCATTGCCAATCCCCACACCAGACTTGATGGCGATCGTTTCTACAACAACTGCAAGTTTTTAGCTAAAAATGGATACTACCCAGTTGTTAATGGCGCTA
Forap_PHW815  TGTATTGCCATGCCTCATGTTAGACTTGATGGCGACCGATGGCACGACAACTGCAAGGATCTAGCTAAGGGTGGATATTACCCAGTTGTCAATGGCGCTA
Focuc_018     TGTATTGCCGTGCCTCATGTTAGACTTGATGGCGACCGATGGTACAACAACTGCAAGGATCTAGCTAAGGGTGGATATTACCCAGTTGTCAATGGCGCTA
Focuc_021     TGTATTGCCGTGCCTCATGTTAGACTTGATGGCGACCGATGGTACAACAACTGCAAGGATCTAGCTAAGGGTGGATATTACCCAGTTGTCAATGGCGCTA
Focuc_030     TGTATTGCCGTGCCTCATGTTAGACTTGATGGCGACCGATGGTACAACAACTGCAAGGATCTAGCTAAGGGTGGATATTACCCAGTTGTCAATGGCGCTA
Focuc_037     TGTATTGCCGTGCCTCATGTTAGACTTGATGGCGACCGATGGTACAACAACTGCAAGGATCTAGCTAAGGGTGGATATTACCCAGTTGTCAATGGCGCTA
Focuc_001     TGTATTGCCGTGCCTCATGTTAGACTTGATGGCGACCGATGGTACAACAACTGCAAGGATCTAGCTAAGGGTGGATATTACCCAGTTGTCAATGGCGCTA
Focuc_013     TGTATTGCCGTGCCTCATGTTAGACTTGATGGCGACCGATGGTACAACAACTGCAAGGATCTAGCTAAGGGTGGATATTACCCAGTTGTCAATGGCGCTA
Focuc_011     TGTATTGCCGTGCCTCATGTTAGACTTGATGGCGACCGATGGTACAACAACTGCAAGGATCTAGCTAAGGGTGGATATTACCCAGTTGTCAATGGCGCTA
Focuc_015     TGTATTGCCGTGCCTCATGTTAGACTTGATGGCGACCGATGGTACAACAACTGCAAGGATCTAGCTAAGGGTGGATATTACCCAGTTGTCAATGGCGCTA
Focuc_035     TGTATTGCCGTGCCTCATGTTAGACTTGATGGCGACCGATGGTACAACAACTGCAAGGATCTAGCTAAGGGTGGATATTACCCAGTTGTCAATGGCGCTA
Foluf_001_0   TGCATTGCCCTGCCTCATGTTAGACTCGATGGCGACCGTTTCTACAACAACTGCAAGCAACTGGCTAAGGATGGATGGTACCCAGTTGTGGACGGCGCTA
Foluf_002     TGCATTGCCCTGCCTCATGTTAGACTCGATGGCGACCGTTTCTACAACAACTGCAAGCAACTGGCTAAGGATGGATGGTACCCAGTTGTGGACGGCGCTA
Fopis_HDV247  TGCATTGCTATGCCTCATGTTCGACTTGATGGTGACCGTTACTTCAAAAACTGCCAGAAGCTGGCTAAGGATGGATGGTACCCGGTTGTGGACGGTGCTA
Fomln_010     TGCATTGCTCTGCCTCATGTTCGACTTGATGGTGACCGTTTCTACCATAACTGCCAGAAGCTGGCTAAGGATGGATGGTACCCGGTTGTGGACGGTGCTA
Foniv_002_0   TGCATTGCTCTGCCTCATGTTCGACTTGATGGTGACCGTTTCTACCATAACTGCCAGAAGCTGGCTAAGGATGGATGGTACCCGGTTGTGGACGGTGCTA
Foniv_015_0   TGCATTGCTCTGCCTCATGTTCGACTTGATGGTGACCGTTTCTACCATAACTGCCAGAAGCTGGCTAAGGATGGATGGTACCCGGTTGTGGACGGTGCTA
Foniv_021_0   TGCATTGCTCTGCCTCATGTTCGACTTGATGGTGACCGTTTCTACCATAACTGCCAGAAGCTGGCTAAGGATGGATGGTACCCGGTTGTGGACGGTGCTA
Foniv_005_0   TGCATTGCTCTGCCTCATGTTCGACTTGATGGTGACCGTTTCTACCATAACTGCCAGAAGCTGGCTAAGGATGGATGGTACCCGGTTGTGGACGGTGCTA
Foniv_010_0   TGCATTGCTCTGCCTCATGTTCGACTTGATGGTGACCGTTTCTACCATAACTGCCAGAAGCTGGCTAAGGATGGATGGTACCCGGTTGTGGACGGTGCTA
Foniv_013_0   TGCATTGCTCTGCCTCATGTTCGACTTGATGGTGACCGTTTCTACCATAACTGCCAGAAGCTGGCTAAGGATGGATGGTACCCGGTTGTGGACGGTGCTA
Foniv_019_0   TGCATTGCTCTGCCTCATGTTCGACTTGATGGTGACCGTTTCTACCATAACTGCCAGAAGCTGGCTAAGGATGGATGGTACCCGGTTGTGGACGGTGCTA
Foniv_020_0   TGCATTGCTCTGCCTCATGTTCGACTTGATGGTGACCGTTTCTACCATAACTGCCAGAAGCTGGCTAAGGATGGATGGTACCCGGTTGTGGACGGTGCTA
Foniv_037_0   TGCATTGCTCTGCCTCATGTTCGACTTGATGGTGACCGTTTCTACCATAACTGCCAGAAGCTGGCTAAGGATGGATGGTACCCGGTTGTGGACGGTGCTA
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Marker #66

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            601
Fotul_Tu67     TCGATACCACTCAACCTATGATTTATGCCAAGCAAGGCGGCTCTGGTTGCTATAACTAGT---GGTCTTGTGTTATTGGGGATTGAATTTTGACCCTG--
Fobul_G14      TCGATACCACTAAAGCTATGATTTATGCCAAGCAAGGCAGCTCTCGTTGCTATAACTAGTGGCGGTGTTGTGTTAGTGGGGATTGAGCTTTGACCCT---
Fogla_G2       TCGATACCACTAAAGCTATGATTTATGCCAAGCAAGGCAGCTCTCGTTGCTATAACTAGTGGCGGTGTTGTGTTAGTGGGGATTGAGCTTTGACCCTT--
Fogla_G76      TCGATACCACTAAAGCTATGATTTATGCCAAGCAAGGCAGCTCTCGTTGCTATAACTAGTGGCGGTGTTGTGTTAGTGGGGATTGAGCTTTGACCCTT--
Folag_001      TCGATACCACTCAACCTAAGCTTTTTGCCAAACAAGGCGGCTCTGGTTGCTATAACTAGT---GGTGTTGTGGTATTGGGGATTGAACTTTGATCCTTTT
Foniv_010_1    TCGATACCACTCAACCTAAGCTTTTTGCCAAACAAGGCGGCTCTGGTTGCTATAACTAGT---GGTGTTGTGGTATTGGGGATTGAACTTTGATCCTTTT
Foniv_019_1    TCGATACCACTCAACCTAAGCTTTTTGCCAAACAAGGCGGCTCTGGTTGCTATAACTAGT---GGTGTTGTGGTATTGGGGATTGAACTTTGATCCTTTT
Foniv_021_1    TCGATACCACTCAACCTAAGCTTTTTGCCAAACAAGGCGGCTCTGGTTGCTATAACTAGT---GGTGTTGTGGTATTGGGGATTGAACTTTGATCCTTTT
Foniv_037_1    TCGATACCACTCAACCTAAGCTTTTTGCCAAACAAGGCGGCTCTGGTTGCTATAACTAGT---GGTGTTGTGGTATTGGGGATTGAACTTTGATCCTTTT
Fomom_001      TCGATACCACTCAACCTAAGCTTTTTGCCAAACAAGGCGGCTCTGGTTGCTATAACTAGT---GGTGTTGTGGTATTGGGGATTGAACTTTGATCCTTTT
Fomom_004      TCGATACCACTCAACCTAAGCTTTTTGCCAAACAAGGCGGCTCTGGTTGCTATAACTAGT---GGTGTTGTGGTATTGGGGATTGAACTTTGATCCTTTT
Foniv_002_1    TCGATACCACTCAACCTAAGCTTTTTGCCAAACAAGGCGGCTCTGGTTGCTATAACTAGT---GGTGTTGTGGTATTGGGGATTGAACTTTGATCCTTTT
Foniv_015_1    TCGATACCACTCAACCTAAGCTTTTTGCCAAACAAGGCGGCTCTGGTTGCTATAACTAGT---GGTGTTGTGGTATTGGGGATTGAACTTTGATCCTTTT
Foniv_020_1    TCGATACCACTCAACCTAAGCTTTTTGCCAAACAAGGCGGCTCTGGTTGCTATAACTAGT---GGTGTTGTGGTATTGGGGATTGAACTTTGATCCTTTT
Fomln_004      TCGATACCACTCAACCTAAGCTTACTGCCCAACAAGGCGGCTCTGGTTGCTATAACTAGT---GGTGTTGTGGTATTGGGGATTGAACTTTGATCCTTTT
Fomln_013      TCGATACCACTCAACCTAAGCTTACTGCCCAACAAGGCGGCTCTGGTTGCTATAACTAGT---GGTGTTGTGGTATTGGGGATTGAACTTTGATCCTTTT
Fomln_005      TCGATACCACTCAACCTAAGCTTACTGCCCAACAAGGCGGCTCTGGTTGCTATAACTAGT---GGTGTTGTGGTATTGGGGATTGAACTTTGATCCTTTT
Fomln_006      TCGATACCACTCAACCTAAGCTT-------------------------------------------------------------------------------
Fomln_012      TCGATACCACTCAACCTAAGCTTACTGCCCAACAAGGCGGCTCTGGTTGCTATAACTAGT---GGTGTT-------------------------------
Fomln_016      TCGATACCACTCAACCTAAGCTTACTGCCCAACAAGGCGGCTCTGGTTGCTATAACTAGT---GGTGTTGTGGTATTGGGGATTGAACTTTGATCCTTTT
Forcu_016      TCGATACCACTCAACCTAAGCTTACTGCCCAACAAGGCGGCTCTGGTTGCTATAACTAGT---GGTGTTGTGGTATTGGGGATTGAACTTTGATCCTTTT
Forcu_024      TCGATACCACTCAACCTAAGCTTACTGCCCAACAAGGCGGCTCTGGTTGCTATAACTAGT---GGTGTTGTGGTATTGGGGATTGAACTTTGATCCTTTT
Forcu_031      TCGATACCACTCAACCTAAGCTTACTGCCCAACAAGGCGGCTCTGGTTGCTATAACTAGT---GGTGTTGTGGTATTGGGGATTGAACTTTGATCCTTTT
Foniv_005_1    TCGATACCACTCAACCTAAGCTTTTTGCCAAACAAGGCGGCTCTGGTTGCTATAACTAGT---GGTGTTGTGGTATTGGGGATTGAACTTTGATCCTTTT
Foluf_001_1    TCGATACCACTCAACCTAAGCTTTTTGCCAAACAAGGCGGCTCTGGTTGCTATAACTAGT---GGTGTTGTGGTATTGGGGATTGAACTTTGATCCTTTT
Foniv_013_1    TCGATACCACTCAACCTAAGCTTTTTGCCAAACAAGGCGGCTCTGGTTGCTATAACTAGT---GGTGTTGTGGTATTGGGGATTGAACTTTGATCCTTTT
Forap_PHW815   TCGATACTACGAAGCCCAGGATTTTTGCCAAGGACGGCGGTTCTACGTGCTATGATTAGT---ATTGCTCTGTTTGTTGGGATTGAACCCTG--------
Focuc_018      TCGATACTACGAAGCCCAAGATTACTGCCAAGGACGGCGGTTCTACGTGCTAT---TAGT---TTTGCTCTGTTTGTTGGGATTGTACCCTG--------
Focuc_021      TCGATACTACGAAGCCCAAGATTACTGCCAAGGACGGCGGTTCTACGTGCTAT---TAGT---TTTGCTCTGTTTGTTGGGATTGTACCCTG--------
Focuc_030      TCGATACTACGAAGCCCAAGATTACTGCCAAGGACGGCGGTTCTACGTGCTAT---TAGT---TTTGCTCTGTTTGTTGGGATTGTACCCTG--------
Focuc_037      TCGATACTACGAAGCCCAAGATTACTGCCAAGGACGGCGGTTCTACGTGCTAT---TAGT---TTTGCTCTGTTTGTTGGGATTGTACCCTG--------
Focuc_001      TCGATACTACGAAGCCCAAGATTACTGCCAAGGACGGCGGTTCTACGTGCTAT---TAGT---TTTGCTCTGTTTGTTGGGATTGTACCCTG--------
Focuc_013      TCGATACTACGAAGCCCAAGATTACTGCCAAGGACGGCGGTTCTACGTGCTAT---TAGT---TTTGCTCTGTTTGTTGGGATTGTACCCTG--------
Focuc_011      TCGATACTACGAAGCCCAAGATTACTGCCAAGGACGGCGGTTCTACGTGCTAT---TAGT---TTTGCTCTGTTTGTTGGGATTGTACCCTG--------
Focuc_015      TCGATACTACGAAGCCCAAGATTACTGCCAAGGACGGCGGTTCTACGTGCTAT---TAGT---TTTGCTCTGTTTGTTGGGATTGTACCCTG--------
Focuc_035      TCGATACTACGAAGCCCAAGATTACTGCCAAGGACGGCGGTTCTACGTGCTAT---TAGT---TTTGCTCTGTTTGTTGGGATTGTACCCTG--------
Foluf_001_0    TCGATACTACTAAACCCAAGATTACCGCGAAGCAGGGCGGCTCTGGTTGCTATAATTAGT---GTTGCTTTGTTGGCTGGGTTTGGACCCTG--------
Foluf_002      TCGATACTACTAAACCCAAGATTACCGCGAAGCAGGGCGGCTCTGGTTGCTATAATTAGT---GTTGCTTTGTTGGCTGGGTTTGGACCCTG--------
Fopis_HDV247   TCGATACTACTCAACCCAAGATTACAGCCAAGCACGGCGGCTCTGGTTGCTATAACTA-----AATTCTCAGTTTGTTAGGATTATGCCCTG--------
Fomln_010      TCGATACTACTCAACCCAAGATTACAGCCAAGCACGGCGGCTCTGGTTGCTATAACTA-----AATTCTCAGTTTGTTAGGATTATGCCCTG--------
Foniv_002_0    TCGATACTACTCAACCCAAGATTACAGCCAAGCACGGCGGCTCTGGTTGCTATAACTA-----AATTCTCAGTTTGTTAGGATTATGCCCTG--------
Foniv_015_0    TCGATACTACTCAACCCAAGATTACAGCCAAGCACGGCGGCTCTGGTTGCTATAACTA-----AATTCTCAGTTTGTTAGGATTATGCCCTG--------
Foniv_021_0    TCGATACTACTCAACCCAAGATTACAGCCAAGCACGGCGGCTCTGGTTGCTATAACTA-----AATTCTCAGTTTGTTAGGATTATGCCCTG--------
Foniv_005_0    TCGATACTACTCAACCCAAGATTACAGCCAAGCACGGCGGCTCTGGTTGCTATAACTA-----AATTCTCAGTTTGTTAGGATTATGCCCTG--------
Foniv_010_0    TCGATACTACTCAACCCAAGATTACAGCCAAGCACGGCGGCTCTGGTTGCTATAACTA-----AATTCTCAGTTTGTTAGGATTATGCCCTG--------
Foniv_013_0    TCGATACTACTCAACCCAAGATTACAGCCAAGCACGGCGGCTCTGGTTGCTATAACTA-----AATTCTCAGTTTGTTAGGATTATGCCCTG--------
Foniv_019_0    TCGATACTACTCAACCCAAGATTACAGCCAAGCACGGCGGCTCTGGTTGCTATAACTA-----AATTCTCAGTTTGTTAGGATTATGCCCTG--------
Foniv_020_0    TCGATACTACTCAACCCAAGATTACAGCCAAGCACGGCGGCTCTGGTTGCTATAACTA-----AATTCTCAGTTTGTTAGGATTATGCCCTG--------
Foniv_037_0    TCGATACTACTCAACCCAAGATTACAGCCAAGCACGGCGGCTCTGGTTGCTATAACTA-----AATTCTCAGTTTGTTAGGATTATGCCCTG--------

            701
Fotul_Tu67     --GGGGGGGGGGGGGGGGNNGGGGTTAGCATGTGACA----AGGGG----TTTTTCGCCCGAAGGTTTTCCCCGATATCAGCCAATCATGTATT---TT
Fobul_G14      -------------TGGAGGAGGGGCTTAGCATGTGACG----AGGGG----TTTTTCGCCCGAAGGTTTTCCCCGATAACAGCCAGTCCTGTATTTCTTT
Fogla_G2       --------------GGAGGAGGGGCTTAGCATGTGACG----AGGGG----TTTTTCGCCCGAAGGTTTTCCCCGATAACAGCCAGTCCTGTATTTCTTT
Fogla_G76      --------------GGAGGAGGGGCTTAGCATGTGACG----AGGGG----TTTTTCGCCCGAAGGTTTTCCCCGATAACAGCCAGTCCTGTATTTCTTT
Folag_001      TTGGGGGGTTGGGGGTTGGGAGTGTTCAGTATGTGACA----AGGGG----TTTTTCGCCCAAAGGTTTTCCCCGATAACAGCCAGTCCTGTATTTCTCT
Foniv_010_1    TTGGGGGGTTGGGGGTTGGGAGTGTTCAGTATGTGACA----AGGGG----TTTTTCGCCCAAAGGTTTTCCCCGATAACAGCCAGTCCTGTATTTCTCT
Foniv_019_1    TTGGGGGGTTGGGGGTTGGGAGTGTTCAGTATGTGACA----AGGGG----TTTTTCGCCCAAAGGTTTTCCCCGATAACAGCCAGTCCTGTATTTCTCT
Foniv_021_1    TTGGGGGGTTGGGGGTTGGGAGTGTTCAGTATGTGACA----AGGGG----TTTTTCGCCCAAAGGTTTTCCCCGATAACAGCCAGTCCTGTATTTCTCT
Foniv_037_1    TTGGGGGGTTGGGGGTTGGGAGTGTTCAGTATGTGACA----AGGGG----TTTTTCGCCCAAAGGTTTTCCCCGATAACAGCCAGTCCTGTATTTCTCT
Fomom_001      TTGGGGGGTTGGGGGTTGGGAGTGTTCAGTATGTGACA----AGGGG----TTTTTCGCCCAAAGGTTTTCCCCGATAACAGCCAGTCCTGTATTTCTCT
Fomom_004      TTGGGGGGTTGGGGGTTGGGAGTGTTCAGTATGTGACA----AGGGG----TTTTTCGCCCAAAGGTTTTCCCCGATAACAGCCAGTCCTGTATTTCTCT
Foniv_002_1    TTGGGGGGTTGGGGGTTGGGAGTGTTCAGTATGTGACA----AGGGG----TTTTTCGCCCAAAGGTTTTCCCCGATAACAGCCAGTCCTGTATTTCTCT
Foniv_015_1    TTGGGGGGTTGGGGGTTGGGAGTGTTCAGTATGTGACA----AGGGG----TTTTTCGCCCAAAGGTTTTCCCCGATAACAGCCAGTCCTGTATTTCTCT
Foniv_020_1    TTGGGGGGTTGGGGGTTGGGAGTGTTCAGTATGTGACA----AGGGG----TTTTTCGCCCAAAGGTTTTCCCCGATAACAGCCAGTCCTGTATTTCTCT
Fomln_004      TTGGGGGGTTGGGGGTTGGGAGTGTTCAGTATGTGACA----AGGGG----TTTTTCGCCCAAAGGTTTTCCCCGATAACAGCCAGTCCTGTATTTCTCT
Fomln_013      TTGGGGGGTTGGGGGTTGGGAGTGTTCAGTATGTGACA----AGGGG----TTTTTCGCCCAAAGGTTTTCCCCGATAACAGCCAGTCCTGTATTTCTCT
Fomln_005      TTGGGGGGTTGGGGGTTGGGAGTGTTCAGTATGTGACA----AGGGG----TTTTTCGCCCAAAGGTTTTCCCCGATAACAGCCAGTCCTGTATTTCTCT
Fomln_006      -------------------------------------------------------------------------------------------------------
Fomln_012      -------------------------------------------------------------------------------------------------------
Fomln_016      TTGGGGGGTTGGGGGTTGGGAGTGTTCAGTATGTGACA----AGGGG----TTTTTCGCCCAAAGGTTTTCCCCGATAACAGCCAGTCCTGTATTTCTCT
Forcu_016      TTGGGGGGTTGGGGGTTGGGAGTGTTCAGTATGTGACA----AGGGG----TTTTTCGCCCAAAGGTTTTCCCCGATAACAGCCAGTCCTGTATTTCTCT
Forcu_024      TTGGGGGGTTGGGGGTTGGGAGTGTTCAGTATGTGACA----AGGGG----TTTTTCGCCCAAAGGTTTTCCCCGATAACAGCCAGTCCTGTATTTCTCT
Forcu_031      TTGGGGGGTTGGGGGTTGGGAGTGTTCAGTATGTGACA----AGGGG----TTTTTCGCCCAAAGGTTTTCCCCGATAACAGCCAGTCCTGTATTTCTCT
Foniv_005_1    TTGGGGGGTTGGGGGTTGGGAGTGTTCAGTATGTGACA----AGGGG----TTTTTCGCCCAAAGGTTTTCCCCGATAACAGCCAGTCCTGTATTTCTCT
Foluf_001_1    TTGGGGGGTTGGGGGTTGGGAGTGTTCAGTATGTGACA----AGGGG----TTTTTCGCCCAAAGGTTTTCCCCGATAACAGCCAGTCCTGTATTTCTCT
Foniv_013_1    TTGGGGGGTTGGGGGTTGGGAGTGTTCAGTATGTGACA----AGGGG----TTTTTCGCCCAAAGGTTTTCCCCGATAACAGCCAGTCCTGTATTTCTCT
Forap_PHW815   -------------TGATACGAAGGCTTAGCATGTGGCAGGATAGGGG---TTTTTTTGCCCGACGGTTTTCCCCTAT-TGATCAGATCATGGATTTCTTC
Focuc_018      -------------TGATACGAAGGCTTAGCATGTGGCAGGAGAGGGGTTTTTTTTTGCCCGACGGTTTTCCCCTAT-TGATCAGATCATGGATTTCTTT
Focuc_021      -------------TGATACGAAGGCTTAGCATGTGGCAGGAGAGGGGTTTTTTTTTGCCCGACGGTTTTCCCCTAT-TGATCAGATCATGGATTTCTTT
Focuc_030      -------------TGATACGAAGGCTTAGCATGTGGCAGGAGAGGGGTTTTTTTTTGCCCGACGGTTTTCCCCTAT-TGATCAGATCATGGATTTCTTT
Focuc_037      -------------TGATACGAAGGCTTAGCATGTGGCAGGAGAGGGG---TTTTTTTGCCCGACGGTTTTCCCCTAT-TGATCAGATCATGGATTTCTTT
Focuc_001      -------------TGATACGAAGGCTTAGCATGTGGCAGGAGAGGGG--TTTTTTTTGCCCGACGGTTTTCCCCTAT-TGATCAGATCATGGATTTCTTT
Focuc_013      -------------TGATACGAAGGCTTAGCATGTGGCAGGAGAGGGG--TTTTTTTTGCCCGACGGTTTTCCCCTAT-TGATCAGATCATGGATTTCTTT
Focuc_011      -------------TGATACGAAGGCTTAGCATGTGGCAGGAGAGGGG--TTTTTTTTGCCCGACGGTTTTCCCCTAT-TGATCAGATCATGGATTTCTTT
Focuc_015      -------------TGATACGAAGGCTTAGCATGTGGCAGGAGAGGGG---TTTTTTTGCCCGACGGTTTTCCCCTAT-TGATCAGATCATGGATTTCTTT
Focuc_035      -------------TGATACGAAGGCTTAGCATGTGGCAGGAGAGGGG---TTTTTTTGCCCGACGGTTTTCCCCTAT-TGATCAGATCATGGATTTCTTT
Foluf_001_0    -------------ACATTCGAGGGTTTAGCATGTGATAGGACAGGGG----TTTTTTGCCCGATGGTTTTCCCCTATA--ATCAGATCATAGAT----TT
Foluf_002      -------------ACATTCGAGGGTTTAGCATGTGATAGGACAGGGG----TTTTTTGCCCGATGGTTTTCCCCTATA--ATCAGATCATAGAT----TT
Fopis_HDV247   -------------GTGTTAGAGGGTTTAGCATGTCATA--AGAGGGG----TTTTTTGCCCAAAGGTTTTCCCCTCTATTATCAAATTATGCAT----CT
Fomln_010      -------------GTGTTAGAGGGTTTAGCATGTCATA--AGAGGGG----TTTTTTGCCCAAAGGTTTTCCCCTCTATTATCAAATTATGCAT----CT
Foniv_002_0    -------------GTGTTAGAGGGTTTAGCATGTCATA--AGAGGGG----TTTTTTGCCCAAAGGTTTTCCCCTCTATTATCAAATTATGCAT----CT
Foniv_015_0    -------------GTGTTAGAGGGTTTAGCATGTCATA--AGAGGGG----TTTTTTGCCCAAAGGTTTTCCCCTCTATTATCAAATTATGCAT----CT
Foniv_021_0    -------------GTGTTAGAGGGTTTAGCATGTCATA--AGAGGGG----TTTTTTGCCCAAAGGTTTTCCCCTCTATTATCAAATTATGCAT----CT
Foniv_005_0    -------------GTGTTAGAGGGTTTAGCATGTCATA--AGAGGGG----TTTTTTGCCCAAAGGTTTTCCCCTCTATTATCAAATTATGCAT----CT
Foniv_010_0    -------------GTGTTAGAGGGTTTAGCATGTCATA--AGAGGGG----TTTTTTGCCCAAAGGTTTTCCCCTCTATTATCAAATTATGCAT----CT
Foniv_013_0    -------------GTGTTAGAGGGTTTAGCATGTCATA--AGAGGGG----TTTTTTGCCCAAAGGTTTTCCCCTCTATTATCAAATTATGCAT----CT
Foniv_019_0    -------------GTGTTAGAGGGTTTAGCATGTCATA--AGAGGGG----TTTTTTGCCCAAAGGTTTTCCCCTCTATTATCAAATTATGCAT----CT
Foniv_020_0    -------------GTGTTAGAGGGTTTAGCATGTCATA--AGAGGGG----TTTTTTGCCCAAAGGTTTTCCCCTCTATTATCAAATTATGCAT----CT
Foniv_037_0    -------------GTGTTAGAGGGTTTAGCATGTCATA--AGAGGGG----TTTTTTGCCCAAAGGTTTTCCCCTCTATTATCAAATTATGCAT----CT
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fp7324 rev< Focuc

Marker #66

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             801
Fotul_Tu67     CATTCCTACCAGTCATTGTAATTAAG----------------------------
Fobul_G14      CAA------CAGGAG----------------AGATCATCAACTCAAGATACGGT-
Fogla_G2       CAA------CAGGAG----------------AGATCATCAACTCAAGATACGGTA
Fogla_G76      CAA------CAGGAG----------------AGATCATCAACTCAAGATACGGTA
Folag_001      CAA------CAGTAG----------------AGGTCATCAAC-------------
Foniv_010_1    CAA------CAGTAG----------------AGGTCATCAAC-------------
Foniv_019_1    CAA------CAGTAG----------------AGGTCATCAAC-------------
Foniv_021_1    CAA------CAGTAG----------------AGGTCATCAAC-------------
Foniv_037_1    CAA------CAGTAG----------------AGGTCATCAAC-------------
Fomom_001      CAA------CAGTAG----------------AGGTCATCAA--------------
Fomom_004      CAA------CAGTAG----------------AGGTCATCAA--------------
Foniv_002_1    CAA------CAGTAG----------------AGGTCATCAA--------------
Foniv_015_1    CAA------CAGTAG----------------AGGTCATCAA--------------
Foniv_020_1    CAA------CAGTAG----------------AGGTCATCAA--------------
Fomln_004      CAA------CAGTAG----------------AGGTCATCAAC-------------
Fomln_013      CAA------CAGTAG----------------AGGTCATCAAC-------------
Fomln_005      CAA------CAGTAG----------------AGGTCATCAA--------------
Fomln_006      ------------------------------------------------------
Fomln_012      ------------------------------------------------------
Fomln_016      CAA------CAGTAG----------------AGGTCATCAA--------------
Forcu_016      CAA------CAGTAG----------------AGGTCATCAA--------------
Forcu_024      CAA------CAGTAG----------------AGGTCATCAA--------------
Forcu_031      CAA------CAGTAG----------------AGGTCATCAA--------------
Foniv_005_1    CAA------CAGTAG----------------AGGTCATCAAC-------------
Foluf_001_1    CAA------CAGTAG----------------AGGTCATCAA--------------
Foniv_013_1    CAA------CAGTAG----------------AGGTCATCAAC-------------
Forap_PHW815   CAGTCCCTAAAGCGGCCAACATTGGGATGTTAGGTTA------------------
Focuc_018      CAGCCCCTAAAGCAGCCAGAATTGGGATGTTAGGTTA------------------
Focuc_021      CAGCCCCTAAAGCAGCCAGAATTGGGATGTTAGGTTA------------------
Focuc_030      CAGCCCCTAAAGCAGCCAGAATTGGGATGTTAGGTT-------------------
Focuc_037      CAGCCCCTAAAGCAGCCAGAATTGGGATGTTAGGTTAGCA---------------
Focuc_001      CAGCCCCTAAAGCAGCCAGAATTGGGATGTTAGGTTAGC----------------
Focuc_013      CAGCCCCTAAAGCAGCCAGAATTGGGATGTTAGGTTAGC----------------
Focuc_011      CAGCCCCTAAAGCAGCCAGAATTGGGATGTTAGGTTAG-----------------
Focuc_015      CAGCCCCTAAAGCAGCCAGAATTGGGATGTTAGGTTAGC----------------
Focuc_035      CAGCCCCTAAAGCAGCCAGAATTGGGATGTTAGGTTAGC----------------
Foluf_001_0    CAATCCCTGAAGCAGTGAAAAATGCGATGTTAGATTAGCAAT-------------
Foluf_002      CAATCCCTGAAGCAGTGAAAAATGCGATGTTAGATTAGCAATT------------
Fopis_HDV247   CAATCCCTAAAGTAGTTAAGAATAGGAGTTTAGTCTAGCAATTCA----------
Fomln_010      CAATCCCTAAAGTAGTTAAGAATATGAGTTTAGTCTAGCAATTC-----------
Foniv_002_0    CAATCCCTAAAGTAGTTAAGAATATGAGTTTAGTCTAGCAATTC-----------
Foniv_015_0    CAATCCCTAAAGTAGTTAAGAATATGAGTTTAGTCTAGCAATTC-----------
Foniv_021_0    CAATCCCTAAAGTAGTTAAGAATATGAGTTTAGTCTAGCAATTC-----------
Foniv_005_0    CAATCCCTAAAGTAGTTAAGAATATGAGTTTAGTCTAGCAATTCA----------
Foniv_010_0    CAATCCCTAAAGTAGTTAAGAATATGAGTTTAGTCTAGCAATTCA----------
Foniv_013_0    CAATCCCTAAAGTAGTTAAGAATATGAGTTTAGTCTAGCAATTCA----------
Foniv_019_0    CAATCCCTAAAGTAGTTAAGAATATGAGTTTAGTCTAGCAATTCA----------
Foniv_020_0    CAATCCCTAAAGTAGTTAAGAATATGAGTTTAGTCTAGCAATTCA----------
Foniv_037_0    CAATCCCTAAAGTAGTTAAGAATATGAGTTTAGTCTAGCAATTCA----------
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Marker #66

```
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Seaview [blocks=100 fontsize=7 A4] on Fri Mar 10 14:21:37 2017

                 1
Focuc_015_1      ---------------------------------------NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Focuc_011        --------------------------AATTAATA---GTAAGTTAGACAGCAGCAAGCTGTCAGATAAAACCACTCATGCATTGCTCTAAGTGGGGATTC
Focuc_013        --------------------------AATTAATA---GTAAGTTAGACAGCAGCAAGCTGTCAGATAAAACCACTCATGCATTGCTCTAAGTGGGGATTC
Focuc_001_1      ------------------------------GACCAAAGTCATTCCAGCTGGGGGGGTGTGTCAGATAAAACCACTCATGCATTGCTCTAAGTGGGGATTC
Focuc_037_1      ------------------------------GACCAAAGTCATTCCAGCTGGGGGGGTGTGTCAGATAAAACCACTCATGCATTGCTCTAAGTGGGGATTC
Focuc_035_1      -----------------------------TGACCAAAGTCATTCCAGCTGGGGGGGTGTGTCAGATAAAACCACTCATGCATTGCTCTAAGTGGGGATTC
Focuc_018        ----------------------------------------------------------TGTCAGATAAAACCACTCATGCATTGCTCTAAGTGGGGATTC
Focuc_021        ------------------------------GACCAAAGTCATTCCAGCTGGGGGGGTGTGTCAGATAAAACCACTCATGCATTGCTCTAAGTGGGGATTC
Focuc_030        -----------------------------------------------------------------TAAAACCACTCATGCATTGCTCTAAGTGGGGATTC
Foluf_001_1      ----------------------GTATGAATGCCC---CTGAAGCCG---------CCGCGTAAATACATAACCTTAATAACCTCTTCTCTGCCGGTTTGC
Foluf_002_1      ----------------------GTATGAATGCCC---CTGAAGCCG---------CCGCGTAAATACATAACCTTAATAACCTCTTCTCTGCCGGTTTGC
Fopis_HDV247     ----------ACGAACGGCAGATAATAGTTCGCC---TTGACTCAAGGTTAAACTTTATTTAGAAGG-------AGGTAACCTCTTCTCTGCCGGTCTGC
Folag_001        GCCCCTGAAGCCGCTACTTGAAGAATGCGCGACC---TTAA------------------------------------CAACCTCTTCTCTGCCGGTTTGC
Folag_004        GCCCCTGAAGCCGCTACTTGAAGAATGCGCGACC---TTAA------------------------------------CAACCTCTTCTCTGCCGGTTTGC
Folag_002        -CCCCTGAAGCCGCTACTTGAAGAATGCGCGACC---TTAA------------------------------------CAACCTCTTCTCTGCCGGTTTGC
Folag_005        -CCCCTGAAGCCGCTACTTGAAGAATGCGCGACC---TTAA------------------------------------CAACCTCTTCTCTGCCGGTTTGC
Fomln_010_0      -CCCCTGAAGCCGCTACTTGAAGAATGCGCGACC---TTAA------------------------------------CAACCTCTTCTCTGCCGGTTTGC
Focuc_037_0      -----------------TTATTTTAGGCATGAC----TTAAATTTAGAAGG----------------------------GTTTATTTTCAGTCGAGTG--
Foluf_002_0      ------------------TATTTTAGGCATGAC----TTAAATTTAGAAGG----------------------------GTTTATTTTCAGTCGAGTG--
Focuc_001_0      -----------------TTATTTTAGGCATGAC----TTAAATTTAGAAGG----------------------------GTTTATTTTCAGTCGAGTG--
Focuc_015_0      -----------------TTATTTTAGGCATGAC----TTAAATTTAGAAGG----------------------------GTTTATTTTCAGTCGAGTG--
Focuc_035_0      -----------------TTATTTTAGGCATGAC----TTAAATTTAGAAGG----------------------------GTTTATTTTCAGTCGAGTG--
Foluf_001_0      -----------------TTATTTTAGGCATGAC----TTAAATTTAGAAGG----------------------------GTTTATTTTCAGTCGAGTG--
Fomln_010_2      ----------------------------ATGACT---TTAACTCCAGGTGAAACATTACTTAGAAAA-------CTATAACTTCTTCTGTGCCGGTTTGC
Foniv_002_1      ----------------------------ATGACT---TTAACTCCAGGTGAAACATTACTTAGAAAA-------CTATAACTTCTTCTGTGCCGGTTTGC
Foniv_015_1      ----------------------------ATGACT---TTAACTCCAGGTGAAACATTACTTAGAAAA-------CTATAACTTCTTCTGTGCCGGTTTGC
Foniv_021_1      ----------------------------ATGACT---TTAACTCCAGGTGAAACATTACTTAGAAAA-------CTATAACTTCTTCTGTGCCGGTTTGC
Foniv_005_1      ---------------------------CATGACT---TTAACTCCAGGTGAAACATTACTTAGAAAA-------CTATAACTTCTTCTGTGCCGGTTTGC
Foniv_010_1      ---------------------------CATGACT---TTAACTCCAGGTGAAACATTACTTAGAAAA-------CTATAACTTCTTCTGTGCCGGTTTGC
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Foniv_037_1      ---------------------------CATGACT---TTAACTCCAGGTGAAACATTACTTAGAAAA-------CTATAACTTCTTCTGTGCCGGTTTGC
Foniv_005_0      --------------------------------------------------------------------------------CTCCTTTTGTGCCGGTTTGC
Foniv_015_0      ------------------------ACATATGACT---TTAACTCTAGGTAAAACTTTACTTGAAAAA-------CTATAACTCCTTTTGTGCCGGTTTGC
Foniv_020_0      -----------------------TACATATGACT---TTAACTCTAGGTAAAACTTTACTTGAAAAA-------CTATAACTCCTTTTGTGCCGGTTTGC
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Foniv_002_0      ------------------------ACATATGACT---TTAACTCTAGGTAAAACTTTACTTGAAAAA-------CTATAACTCCTTTTGTGCCGGTTTGC
Fomln_010_1      ------------------------ACATATGACT---TTAACTCTAGGTAAAACTTTACTTGAAAAA-------CTATAACTCCTTTTGTGCCGGTTTGC
Foniv_013_0      ------------------------ACATATGACT---TTAACTCTAGGTAAAACTTTACTTGAAAAA-------CTATAACTCCTTTTGTGCCGGTTTGC
Foniv_021_0      ------------------------ACATATGACT---TTAACTCTAGGTAAAACTTTACTTGAAAAA-------CTATAACTCCTTTTGTGCCGGTTTGC
Foniv_037_0      -----------------------TACATATGACT---TTAACTCTAGGTAAAACTTTACTTGAAAAA-------CTATAACTCCTTTTGTGCCGGTTTGC
Forap_PHW815_0   -------------------------AAGTTGAC------GAATTTTGGTGGTGCTCTTTTT-------------TTTTTTTTTTTTTTTTGACGAAAGGG
Forap_PHW815_1   --------ATTGTCGGCGAATTGCAAGATTGGC------GACATCGGGAGGCA---------------------TTGTGGCTAGTATGTGGCTGAATGTG

                101
Focuc_015_1      NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNGTAG----------TTGGTAA-----------AATCTAACACAAGCCTCTGTATTATA-------TACTC
Focuc_011        CCATTTTGGTGGCGTGT----------GGTGTAG----------TTGGTAA-----------AATCTAACACAAGCCTCTGTATTATA-------TACTC
Focuc_013        CCATTTTGGTGGCGTGT----------GGTGTAG----------TTGGTAA-----------AATCTAACACAAGCCTCTGTATTATA-------TACTC
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Focuc_018        CCATTTTGGTGGCGTGT----------GGTGTAG----------TTGGTAA-----------AATCTAACACAAGCCTCTGTATTATA-------TACTC
Focuc_021        CCATTTTGGTGGCGTGT----------GGTGTAG----------TTGGTAA-----------AATCTAACACAAGCCTCTGTATTATA-------TACTC
Focuc_030        CCATTTTGGTGGCGTGT----------GTTGTAG----------TTGGTAA-----------AATCTAACACAAGCCTCTGTATTATA-------TACTC
Foluf_001_1      CGG--------TCTTGT----------ATATGTA----------TTAATAATATAAGTTTAAAGTTTAGCATA--TTTCTAAAATATA-----AATACTC
Foluf_002_1      CGG--------TCTTGT----------ATATGTA----------TTAATAATATAAGTTTAAAGTTTAGCATA--TTTCTAAAATATA-----AATACTC
Fopis_HDV247     CGGTCTGACGCTCTTAC----------TTATTTATTAATC----CTAGTAA---TATTAGAAAGTTTAGCACC--ATTCTGAAATATATATGTTATACTC
Folag_001        CGA--------TCTTGC----------AAAT-------------TTATTAA-----ATTTAAAGTTTAGCACC--TTTCTGAAATATA-----AATACTC
Folag_004        CGA--------TCTTGC----------AAAT-------------TTATTAA-----ATTTAAAGTTTAGCACC--TTTCTGAAATATA-----AATACTC
Folag_002        CGA--------TCTTGC----------AAAT-------------TTATTAA-----ATTTAAAGTTTAGCACC--TTTCTGAAATATA-----AATACTC
Folag_005        CGA--------TCTTGC----------AAAT-------------TTATTAA-----ATTTAAAGTTTAGCACC--TTTCTGAAATATA-----AATACTC
Fomln_010_0      CGA--------TCTTGC----------AAAT-------------TTATTAA-----ATTTAAAGTTTAGCACC--TTTCTGAAATATA-----AATACTC
Focuc_037_0      TAA--------GCTAGTATAAACTTTTAATGTAACACTCACTTGTTTGTAACACTCGCTTATCACGTACGTTA--CTTCTAAAATATA-------TACTC
Foluf_002_0      TAA--------GCTAGTATAAACTTTTAATGTAACACTCACTTGTTTGTAACACTCGCTTATCACGTACGTTA--CTTCTAAAATATA-------TACTC
Focuc_001_0      TAA--------GCTAGTATAAACTTTTAATGTAACACTCACTTGTTTGTAACACTCGCTTATCACGTACGTTA--CTTCTAAAATATA-------TACTC
Focuc_015_0      TAA--------GCTAGTATAAACTTTTAATGTAACACTCACTTGTTTGTAACACTCGCTTATCACGTACGTTA--CTTCTAAAATATA-------TACTC
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Fomln_010_2      CGG--------GCTGGC----------TGATGTATTAATC----TTGGTAA------TTTAAAATTTTATGTA--CTTCTAAAGTATA-----TATACTC
Foniv_002_1      CGG--------GCTGGC----------TGATGTATTAATC----TTGGTAA------TTTAAAATTTTATGTA--CTTCTAAAGTATA-----TATACTC
Foniv_015_1      CGG--------GCTGGC----------TGATGTATTAATC----TTGGTAA------TTTAAAATTTTATGTA--CTTCTAAAGTATA-----TATACTC
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Foniv_013_1      CGG--------GCTGGC----------TGATGTATTAATC----TTGGTAA------TTTAAAATTTTATGTA--CTTCTAAAGTATA-----TATACTC
Foniv_019_1      CGG--------GCTGGC----------TGATGTATTAATC----TTGGTAA------TTTAAAATTTTATGTA--CTTCTAAAGTATA-----TATACTC
Foniv_020_1      CGG--------GCTGGC----------TGATGTATTAATC----TTGGTAA------TTTAAAATTTTATGTA--CTTCTAAAGTATA-----TATACTC
Foniv_037_1      CGG--------GCTGGC----------TGATGTATTAATC----TTGGTAA------TTTAAAATTTTATGTA--CTTCTAAAGTATA-----TATACTC
Foniv_005_0      CGG--------GCTAGT----------TAATATAGTAATC----CTAGTAA------TTTAAAGTTTTCTATT--CTTCTAAAGTATA-----TATACTC
Foniv_015_0      CGG--------GCTAGT----------TAATATAGTAATC----TTAGTAA------TTTAAAGTTTTCTATA--CTTCTAAAGTATA-----TATACTC
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Foniv_002_0      CGG--------GCTAGT----------TAATATAGTAATC----TTAGTAA------TTTAAAGTTTTCTATA--CTTCTAAAGTATA-----TATACTC
Fomln_010_1      CGG--------GCTAGT----------TAATATAGTAATC----TTAGTAA------TTTAAAGTTTTCTATA--CTTCTAAAGTATA-----TATACTC
Foniv_013_0      CGG--------GCTAGT----------TAATATAGTAATC----TTAGTAA------TTTAAAGTTTTCTATA--CTTCTAAAGTATA-----TATACTC
Foniv_021_0      CGG--------GCTAGT----------TAATATAGTAATC----TTAGTAA------TTTAAAGTTTTCTATA--CTTCTAAAGTATA-----TATACTC
Foniv_037_0      CGG--------GCTAGT----------TAATATAGTAATC----TTAGTAA------TTTAAAGTTTTCTATA--CTTCTAAAGTATA-----TATACTC
Forap_PHW815_0   TGG[illegible]GCTGTCGAAAGGGGGGTTGTGT----------ATGGTAG---TAGTTTAAATTTTTATATA--CTTCTAAAATATA-----TATACTC
Forap_PHW815_1   GTG[illegible]GGTGTGTACGAATTGAGAGTTGGGTGC----GTATCAA--------TAGAGTCTG--------TCCAAAAATATA-----TATACTC
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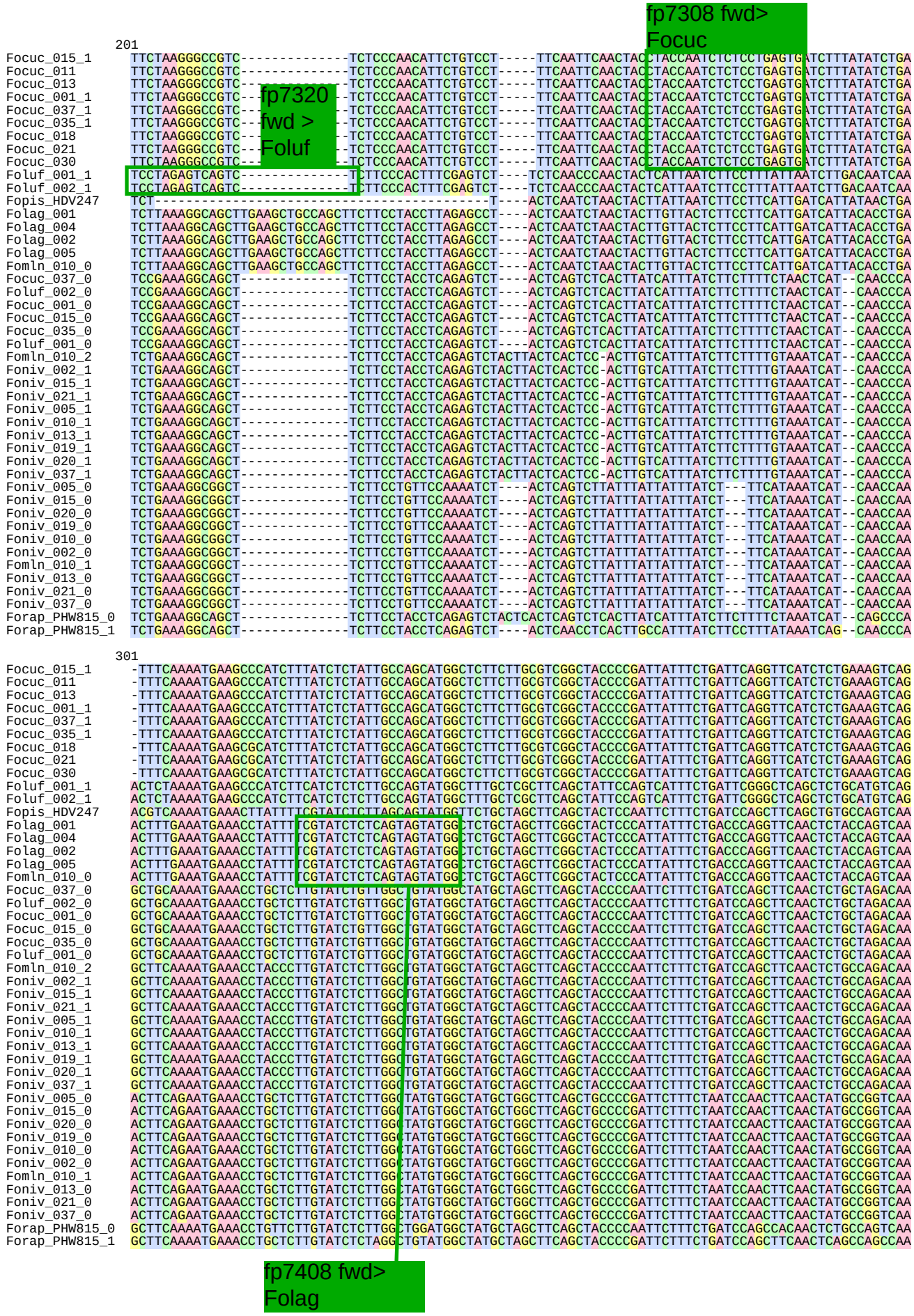
fp7313 fwd > Foniv

fp7320 fwd > Foluf

fp7313 fwd > Foniv

# Marker #99




Marker #99

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                401
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Focuc_013       AGGCAATGACGAGTCAAACATAGTTCTGGACAAGCACGCTACGGCGCCCACGGATAGGTAAGCAGAAAACATCTGTGTGTGAAATGGT--TTTCAGTAAC
Focuc_001_1     AGGCAATGACGAGTCAAACATAGTTCTGGACAAGCACGCTACGGCGCCCACGGATAGGTAAGCAGAAAACATCTGTGTGTGAAATGGT--TTTCAGTAAC
Focuc_037_1     AGGCAATGACGAGTCAAACATAGTTCTGGACAAGCACGCTACGGCGCCCACGGATAGGTAAGCAGAAAACATCTGTGTGTGAAATGGT--TTTCAGTAAC
Focuc_035_1     AGGCAATGACGAGTCAAACATAGTTCTGGACAAGCACGCTACGGCGCCCACGGATAGGTAAGCAGAAAACATCTGTGTGTGAAATGGT--TTTCAGTAAC
Focuc_018       AGGCAATGACGAGTCAAACATAGTTCTGGACAAGCACGCTACGGCGCCCACGGATAGGTAAGCAGAAAACATCTGTGTGTGAAATGGT--TTTCAGTAAC
Focuc_021       AGGCAATGACGAGTCAAACATAGTTCTGGACAAGCACGCTACGGCGCCCACGGATAGGTAAGCAGAAAACATCTGTGTGTGAAATGGT--TTTCAGTAAC
Focuc_030       AGGCAATGACGAGTCAAACATAGTTCTGGACAAGCACGCTACGGCGCCCACGGATAGGTAAGCAGAAAACATCTGTGTGTGAAATGGT--TTTCAGTAAC
Foluf_001_1     AAGCAAGGCTGAGTCAGATCTGACTCCAGACAAACGCGCTATTCTCGATAATGATAGGTAAGCAGAAAG-ACTAATCTGTCCGTTGGTT-TTTCGGTAAC
Foluf_002_1     AAGCAAGGCTGAGTCAGATCTGACTCCAGACAAACGCGCTATTCTCGATAATGATAGGTAAGCAGAAAG-ACTAATCTGTCCGTTGGTT-TTTCGGTAAC
Fopis_HDV247    AGGT------------GACTTGACTCTGGACAGGCGATCTATGCCAGCCCTTGATAGGTAAGCACAAAG-AACTATCCATCCAACTGT--TTGTAGGCCC
Folag_001       AGGT------------GACTTGACTCTGGATAGGCGAGCTGTCCTGGCCTCCGACAGGTAAGCAGGAAG-AACTGTCTATTAAATTGT--TTTTAGGCAC
Folag_004       AGGT------------GACTTGACTCTGGATAGGCGAGCTGTCCTGGCCTCCGACAGGTAAGCAGGAAG-AACTGTCTATTAAATTGT--TTTTAGGCAC
Folag_002       AGGT------------GACTTGACTCTGGATAGGCGAGCTGTCCTGGCCTCCGACAGGTAAGCAGGAAG-AACTGTCTATTAAATTGT--TTTTAGGCAC
Folag_005       AGGT------------GACTTGACTCTGGATAGGCGAGCTGTCCTGGCCTCCGACAGGTAAGCAGGAAG-AACTGTCTATTAAATTGT--TTTTAGGCAC
Fomln_010_0     AGGT------------GACTTGACTCTGGATAGGCGAGCTGTCCTGGCCTCCGACAGGTAAGCAGGAAG-AACTGTCTATTAAATTGT--TTTTAGGCAC
Focuc_037_0     AGGT------------GACCGAACTCTGGACAGGCGAGCTGTACTGGCCTCCGACAGGTAAGCAGAAAG-AACTATCTGTCAAACTGT--TTTTAGATAC
Foluf_002_0     AGGT------------GACCGAACTCTGGACAGGCGAGCTGTACTGGCCTCCGACAGGTAAGCAGAAAG-AACTATCTGTCAAACTGT--TTTTAGATAC
Focuc_001_0     AGGT------------GACCGAACTCTGGACAGGCGAGCTGTACTGGCCTCCGACAGGTAAGCAGAAAG-AACTATCTGTCAAACTGT--TTTTAGATAC
Focuc_015_0     AGGT------------GACCGAACTCTGGACAGGCGAGCTGTACTGGCCTCCGACAGGTAAGCAGAAAG-AACTATCTGTCAAACTGT--TTTTAGATAC
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Foluf_001_0     AGGT------------GACCGAACTCTGGACAGGCGAGCTGTACTGGCCTCCGACAGGTAAGCAGAAAG-AACTATCTGTCAAACTGT--TTTTAGATAC
Fomln_010_2     AGGT------------GACCGAGCTCTGGACAGGCGAGCTGCACTGGCCGCCGACAGGTAAGCAGAAAG-AACTATTC----AATTGT--TTTCGGGCAC
Foniv_002_1     AGGT------------GACCGAGCTCTGGACAGGCGAGCTGCACTGGCCGCCGACAGGTAAGCAGAAAG-AACTATTC----AATTGT--TTTCGGGCAC
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Foniv_021_1     AGGT------------GACCGAGCTCTGGACAGGCGAGCTGCACTGGCCGCCGACAGGTAAGCAGAAAG-AACTATTC----AATTGT--TTTCGGGCAC
Foniv_005_1     AGGT------------GACCGAGCTCTGGACAGGCGAGCTGCACTGGCCGCCGACAGGTAAGCAGAAAG-AACTATTC----AATTGT--TTTCGGGCAC
Foniv_010_1     AGGT------------GACCGAGCTCTGGACAGGCGAGCTGCACTGGCCGCCGACAGGTAAGCAGAAAG-AACTATTC----AATTGT--TTTCGGGCAC
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Foniv_037_1     AGGT------------GACCGAGCTCTGGACAGGCGAGCTGCACTGGCCGCCGACAGGTAAGCAGAAAG-AACTATTC----AATTGT--TTTCGGGCAC
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Foniv_010_0     AGGT------------GACTTAACTCTGGACAGGCGAGCTGTCCTGGCCTCCGACAGGTAAGCAGGAAG-AACTCTCCAGTAAATTG---TTTTAGGCAC
Foniv_002_0     AGGT------------GACTTAACACTGGACAGGCGAGCTGTCCTGGCCTCCGACAGGTAAGCAGGAAG-AACTCTCCAGTAAATTG---TTTTAGGCAC
Fomln_010_1     AGGT------------GACTTAACTCTGGACAGGCGAGCTGTCCTGGCCTCCGACAGGTAAGCAGGAAG-AACTCTCCAGTAAATTG---TTTTAGGCAC
Foniv_013_0     AGGT------------GACTTAACTCTGGACAGGCGAGCTGTCCTGGCCTCCGACAGGTAAGCAGGAAG-AACTCTCCAGTAAATTG---TTTTAGGCAC
Foniv_021_0     AGGT------------GACTTAACTCTGGACAGGCGAGCTGTCCTGGCCTCCGACAGGTAAGCAGGAAG-AACTCTCCAGTAAATTG---TTTTAGGCAC
Foniv_037_0     AGGT------------GACTTAACTCTGGACAGGCGAGCTGTCCTGGCCTCCGACAGGTAAGCAGGAAG-AACTCTCCAGTAAATTG---TTTTAGGCAC
Forap_PHW815_0  AGGT------------GACGGAACTCTGGACAGGCGAGCTGTCGTGGCCTCTGACAGGTAAGCAGAAAG-AACTATCTATTAAATTTT--TTTAAGGCAC
Forap_PHW815_1  AGGT------------GACCGAACTCTGGACAGGCCAGCTATGCTAGCCCCCGATAGGTAAACAGAAAG-AACTACCTGTCAAACTGTTATTTTAGGCAC

                501
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Focuc_011       TAATC--------------------ACTTGGCCACTAGCAATATGCTAGACAAGCGC---------TGGGGTAATAACAGACGGATGAACGTGCCCAACA
Focuc_013       TAATC--------------------ACTTGGCCACTAGCAATATGCTAGACAAGCGC---------TGGGGTAATAACAGACGGATGAACGTGCCCAACA
Focuc_001_1     TAATC--------------------ACTTGGCCACTAGCAATATGCTAGACAAGCGC---------TGGGGTAATAACAGACGGATGAACGTGCCCAACA
Focuc_037_1     TAATC--------------------ACTTGGCCACTAGCAATATGCTAGACAAGCGC---------TGGGGTAATAACAGACGGATGAACGTGCCCAACA
Focuc_035_1     TAATC--------------------ACTTGGCCACTAGCAATATGCTAGACAAGCGC---------TGGGGTAATAACAGACGGATGAACGTGCCCAACA
Focuc_018       TAATC--------------------ACTTGGCCACTAGCAATATGCTAGACAAGCGC---------TGGGGTAATACCAAACGGATGAACGTGCCCAACA
Focuc_021       TAATC--------------------ACTTGGCCACTAGCAATATGCTAGACAAGCGC---------TGGGGTAATACCAAACGGATGAACGTGCCCAACA
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Foluf_001_1     TAATCTAGT------------------CGGCTGCTAGCAATGTGCTTGAAAAGCGC---------------GCCAACAAAAAGATGACAGTGCCAAACA
Foluf_002_1     TAATCTAGT------------------CGGCTGCTAGCAATGTGCTTGAAAAGCGC---------------GCCAACAAAAAGATGACAGTGCCAAACA
Fopis_HDV247    CAATGTAGTAATGTCACCTGCAGGGATACAGCTGCTGGCAATACGCTTGAGAAACGT------------AACCCCAACAGAACAATGACAATTCCCAATC
Folag_001       TAATTTAGTAACTTAACCAGCAGAGATACGGCTGCTGGCAATACGCTTGAGAAACGC---------------GGCAACAGAAGATTGTACGTGCCCAATA
Folag_004       TAATTTAGTAACTTAACCAGCAGAGATACGGCTGCTGGCAATACGCTTGAGAAACGC---------------GGCAACAGAAGATTGTACGTGCCCAATA
Folag_002       TAATTTAGTAACTTAACCAGCAGAGATACGGCTGCTGGCAATACGCTTGAGAAACGC---------------GGCAACAGAAGATTGTACGTGCCCAATA
Folag_005       TAATTTAGTAACTTAACCAGCAGAGATACGGCTGCTGGCAATACGCTTGAGAAACGC---------------GGCAACAGAAGATTGTACGTGCCCAATA
Fomln_010_0     TAATTTAGTAACTTAACCAGCAGAGATACGGCTGCTGGCAATACGCTTGAGAAACGC---------------GGCAACAGAAGATTGTACGTGCCCAATA
Focuc_037_0     TAATGCAGTAGTGTAACCAACAGAGATACGGCTTCTGGCAACACGCTTGGGAAACGTTGGGGGTCGGTGGGCCACAGCAGAAGATTCACAGTGCCCGATC
Foluf_002_0     TAATGCAGTAGTGTAACCAACAGAGATACGGCTTCTGGCAACACGCTTGGGAAACGTTGGGGGTCGGTGGGCCACAGCAGAAGATTCACAGTGCCCGATC
Focuc_001_0     TAATGCAGTAGTGTAACCAACAGAGATACGGCTTCTGGCAACACGCTTGGGAAACGTTGGGGGTCGGTGGGCCACAGCAGAAGATTCACAGTGCCCGATC
Focuc_015_0     TAATGCAGTAGTGTAACCAACAGAGATACGGCTTCTGGCAACACGCTTGGGAAACGTTGGGGGTCGGTGGGCCACAGCAGAAGATTCACAGTGCCCGATC
Focuc_035_0     TAATGCAGTAGTGTAACCAACAGAGATACGGCTTCTGGCAACACGCTTGGGAAACGTTGGGGGTCGGTGGGCCACAGCAGAAGATTCACAGTGCCCGATC
Foluf_001_0     TAATGCAGTAGTGTAACCAACAGAGATACGGCTTCTGGCAACACGCTTGGGAAACGTTGGGGGTCGGTGGGCCACAGCAGAAGATTCACAGTGCCCGATC
Fomln_010_2     TCATATAGTGATGTAACTAGCAAGGATACGGCTTCTATTAATGCACTTGAGAAACGC---------CGCGGCAACGACAGAGATATGAACATACCCCGTC
Foniv_002_1     TCATATAGTGATGTAACTAGCAAGGATACGGCTTCTATTAATGCACTTGAGAAACGC---------CGCGGCAACGACAGAGATATGAACATACCCCGTC
Foniv_015_1     TCATATAGTGATGTAACTAGCAAGGATACGGCTTCTATTAATGCACTTGAGAAACGC---------CGCGGCAACGACAGAGATATGAACATACCCCGTC
Foniv_021_1     TCATATAGTGATGTAACTAGCAAGGATACGGCTTCTATTAATGCACTTGAGAAACGC---------CGCGGCAACGACAGAGATATGAACATACCCCGTC
Foniv_005_1     TCATATAGTGATGTAACTAGCAAGGATACGGCTTCTATTAATGCACTTGAGAAACGC---------CGCGGCAACGACAGAGATATGAACATACCCCGTC
Foniv_010_1     TCATATAGTGATGTAACTAGCAAGGATACGGCTTCTATTAATGCACTTGAGAAACGC---------CGCGGCAACGACAGAGATATGAACATACCCCGTC
Foniv_013_1     TCATATAGTGATGTAACTAGCAAGGATACGGCTTCTATTAATGCACTTGAGAAACGC---------CGCGGCAACGACAGAGATATGAACATACCCCGTC
Foniv_019_1     TCATATAGTGATGTAACTAGCAAGGATACGGCTTCTATTAATGCACTTGAGAAACGC---------CGCGGCAACGACAGAGATATGAACATACCCCGTC
Foniv_020_1     TCATATAGTGATGTAACTAGCAAGGATACGGCTTCTATTAATGCACTTGAGAAACGC---------CGCGGCAACGACAGAGATATGAACATACCCCGTC
Foniv_037_1     TCATATAGTGATGTAACTAGCAAGGATACGGCTTCTATTAATGCACTTGAGAAACGC---------CGCGGCAACGACAGAGATATGAACATACCCCGTC
Foniv_005_0     TAATTTAAGAATATTACTAGCAGAGATTCGGCTGCTGG---TACGCTTGAGAAACGC---------GCCAACCCCAACAGAAAAATGGTAATTCCCAACC
Foniv_015_0     TAATTTAAGAATATTACTAGCAGAGATTCGGCTGCTGG---TACGCTTGAGAAACGC---------GCCAACCCCAACAGAAAAATGGTAATTCCCAACC
Foniv_020_0     TAATTTAAGAATATTACTAGCAGAGATTCGGCTGCTGG---TACGCTTGAGAAACGC---------GCCAACCCCAACAGAAAAATGGTAATTCCCAACC
Foniv_019_0     TAATTTAAGAATATTACTAGCAGAGATTCGGCTGCTGG---TACGCTTGAGAAACGC---------GCCAACCCCAACAGAAAAATGGTAATTCCCAACC
Foniv_010_0     TAATTTAAGAATATTACTAGCAGAGATTCGGCTGCTGG---TACGCTTGAGAAACGC---------GCCAACCCCAACAGAAAAATGGTAATTCCCAACC
Foniv_002_0     TAATTTAAGAATATTACTAGCAGAGATTCGGCTGCTGG---TACGCTTGAGAAACGC---------GCCAACCCCAACAGAAAAATGGTAATTCCCAACC
Fomln_010_1     TAATTTAAGAATATTACTAGCAGAGATTCGGCTGCTGG---TACGCTTGAGAAACGC---------GCCAACCCCAACAGAAAAATGGTAATTCCCAACC
Foniv_013_0     TAATTTAAGAATATTACTAGCAGAGATTCGGCTGCTGG---TACGCTTGAGAAACGC---------GCCAACCCCAACAGAAAAATGGTAATTCCCAACC
Foniv_021_0     TAATTTAAGAATATTACTAGCAGAGATTCGGCTGCTGG---TACGCTTGAGAAACGC---------GCCAACCCCAACAGAAAAATGGTAATTCCCAACC
Foniv_037_0     TAATTTAAGAATATTACTAGCAGAGATTCGGCTGCTGG---TACGCTTGAGAAACGC---------GCCAACCCCAACAGAAAAATGGTAATTCCCAACC
Forap_PHW815_0  TAACATAGTGATGCAACCAGCAGAGATACGGCTGCTAGCAATACGCTTGAGAAACGC---------------GCCATCAGAAAAATGGTACTGCCCAATA
Forap_PHW815_1  TAACGTAGTAATGTAACTAGCAGAGATACGGCTTCTGGCAATATGCTTGGGAAACGC---------------GACAGGAGGAATCTGAATGTGCCGAATC
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fp7330 rev < Foniv

Marker #99

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                601
Focuc_015_1     GTGTCGGCACTGCGGTCCAAAACATTGGCGTTATTGTGGTGAAAGCCATTGTCGATGCTGCTGGTGATCTTGTTTTTCAAATCACTAATAATGCCGCGAA
Focuc_011       GTGTCGGCACTGCGGTCCAAAACATTGGCGTTATTGTGGTGAAAGCCATTGTCGATGCTGCTGGTGATCTTGTTTTTCAAATCACTAATAATGCCGCGAA
Focuc_013       GTGTCGGCACTGCGGTCCAAAACATTGGCGTTATTGTGGTGAAAGCCATTGTCGATGCTGCTGGTGATCTTGTTTTTCAAATCACTAATAATGCCGCGAA
Focuc_001_1     GTGTCGGCACTGCGGTCCAAAACATTGGCGTTATTGTGGTGAAAGCCATTGTCGATGCTGCTGGTGATCTTGTTTTTCAAATCACTAATAATGCCGCGAA
Focuc_037_1     GTGTCGGCACTGCGGTCCAAAACATTGGCGTTATTGTGGTGAAAGCCATTGTCGATGCTGCTGGTGATCTTGTTTTTCAAATCACTAATAATGCCGCGAA
Focuc_035_1     GTGTCGGCACTGCGGTCCAAAACATTGGCGTTATTGTGGTGAAAGCCATTGTCGATGCTGCTGGTGATCTTGTTTTTCAAATCACTAATAATGCCGCGAA
Focuc_018       GTGTCGGCACTGCGGTCCAAAACGTTGGCGTTATTGTGGTGACAGCCATTGTCGATGCTGCTGGTGATCTTGTTTTTCAAATCGCTAATAATGCCGCGAA
Focuc_021       GTGTCGGCACTGCGGTCCAAAACGTTGGCGTTATTGTGGTGACAGCCATTGTCGATGCTGCTGGTGATCTTGTTTTTCAAATCGCTAATAATGCCGCGAA
Focuc_030       GTGTCGGCACTGCGGTCCAAAACGTTGGCGTTATTGTGGTGACAGCCATTGTCGATGCTGCTGGTGATCTTGTTTTTCAAATCGCTAATAATGCCGCGAA
Foluf_001_1     GAATTGGCAGCGCGATTCAGAACATCGGCGTTATTGTGGTGAAGGCCATTGTGGATGCTGCTGGCGATCTTGTATTCCAAATCACCAACAATAGCCCATA
Foluf_002_1     GAATTGGCAGCGCGATTCAGAACATCGGCGTTATTGTGGTGAAGGCCATTGTGGATGCTGCTGGCGATCTTGTATTCCAAATCACCAACAATAGCCCATA
Fopis_HDV247    ATGTTGGCACCGTGGTAAAGAATATCGGCCTTCTTGTGGTCAAGGCCATTGTCGATGCTGCTGGCGAACTCATATTCCAAATTACCAACAACAGCCAAAA
Folag_001       GAATCGGCACTGCGATCGAGACCATCAGTTCTATTATAGTGAAGGCCGTTGTTGATGCTGCGGGCAAGGTTATGTTCGAAATCACCAATAACTTCGATAG
Folag_004       GAATCGGCACTGCGATCGAGACCATCAGTTCTATTATAGTGAAGGCCGTTGTTGATGCTGCGGGCAAGGTTATGTTCGAAATCACCAATAACTTCGATAG
Folag_002       GAATCGGCACTGCGATCGAGACCATCAGTTCTATTATAGTGAAGGCCGTTGTTGATGCTGCGGGCAAGGTTATGTTCGAAATCACCAATAACTTCGATAG
Folag_005       GAATCGGCACTGCGATCGAGACCATCAGTTCTATTATAGTGAAGGCCGTTGTTGATGCTGCGGGCAAGGTTATGTTCGAAATCACCAATAACTTCGATAG
Fomln_010_0     GAATCGGCACTGCGATCGAGACCATCAGTTCTATTATAGTGAAGGCCGTTGTTGATGCTGCGGGCAAGGTTATGTTCGAAATCACCAATAACTTCGATAG
Focuc_037_0     GCACCGGCAGTGCGATAAAGAGGATGGGCTTTATTGTGGTGAAGGCCATTTTTGATGCTGCTGGCGAACTTATATTCGAAATTACCAATAACAGCCTAAA
Foluf_002_0     GCACCGGCAGTGCGATAAAGAGGATGGGCTTTATTGTGGTGAAGGCCATTTTTGATGCTGCTGGCGAACTTATATTCGAAATTACCAATAACAGCCTAAA
Focuc_001_0     GCACCGGCAGTGCGATAAAGAGGATGGGCTTTATTGTGGTGAAGGCCATTTTTGATGCTGCTGGCGAACTTATATTCGAAATTACCAATAACAGCCTAAA
Focuc_015_0     GCACCGGCAGTGCGATAAAGAGGATGGGCTTTATTGTGGTGAAGGCCATTTTTGATGCTGCTGGCGAACTTATATTCGAAATTACCAATAACAGCCTAAA
Focuc_035_0     GCACCGGCAGTGCGATAAAGAGGATGGGCTTTATTGTGGTGAAGGCCATTTTTGATGCTGCTGGCGAACTTATATTCGAAATTACCAATAACAGCCTAAA
Foluf_001_0     GCACCGGCAGTGCGATAAAGAGGATGGGCTTTATTGTGGTGAAGGCCATTTTTGATGCTGCTGGCGAACTTATATTCGAAATTACCAATAACAGCCTAAA
Fomln_010_2     TCGCCGGCAGTGTGGTAAAGTCTTTGGGCGTCGTTGTGGTTAAGGCCATTGTTGATGCTGCTGGCGAAGTTTTATTTGAAATCACCAACAACGGCCCATT
Foniv_002_1     TCGCCGGCAGTGTGGTAAAGTCTTTGGGCGTCGTTGTGGTTAAGGCCATTGTTGATGCTGCTGGCGAAGTTTTATTTGAAATCACCAACAACGGCCCATT
Foniv_015_1     TCGCCGGCAGTGTGGTAAAGTCTTTGGGCGTCGTTGTGGTTAAGGCCATTGTTGATGCTGCTGGCGAAGTTTTATTTGAAATCACCAACAACGGCCCATT
Foniv_021_1     TCGCCGGCAGTGTGGTAAAGTCTTTGGGCGTCGTTGTGGTTAAGGCCATTGTTGATGCTGCTGGCGAAGTTTTATTTGAAATCACCAACAACGGCCCATT
Foniv_005_1     TCGCCGGCAGTGTGGTAAAGTCTTTGGGCGTCGTTGTGGTTAAGGCCATTGTTGATGCTGCTGGCGAAGTTTTATTTGAAATCACCAACAACGGCCCATT
Foniv_010_1     TCGCCGGCAGTGTGGTAAAGTCTTTGGGCGTCGTTGTGGTTAAGGCCATTGTTGATGCTGCTGGCGAAGTTTTATTTGAAATCACCAACAACGGCCCATT
Foniv_013_1     TCGCCGGCAGTGTGGTAAAGTCTTTGGGCGTCGTTGTGGTTAAGGCCATTGTTGATGCTGCTGGCGAAGTTTTATTTGAAATCACCAACAACGGCCCATT
Foniv_019_1     TCGCCGGCAGTGTGGTAAAGTCTTTGGGCGTCGTTGTGGTTAAGGCCATTGTTGATGCTGCTGGCGAAGTTTTATTTGAAATCACCAACAACGGCCCATT
Foniv_020_1     TCGCCGGCAGTGTGGTAAAGTCTTTGGGCGTCGTTGTGGTTAAGGCCATTGTTGATGCTGCTGGCGAAGTTTTATTTGAAATCACCAACAACGGCCCATT
Foniv_037_1     TCGCCGGCAGTGTGGTAAAGTCTTTGGGCGTCGTTGTGGTTAAGGCCATTGTTGATGCTGCTGGCGAAGTTTTATTTGAAATCACCAACAACGGCCCATT
Foniv_005_0     ACATCGGCACTACGATCCAGAATATCGGCGCCGTTATAGTGAAGGCCATTGTTGATGCTGCTGGCGAACTCGTATTTCAAATAACCAATAACAGCGACAA
Foniv_015_0     ACATCGGCACTACGATCCAGAATATCGGCGCCGTTATAGTGAAGGCCATTGTTGATGCTGCTGGCGAACTCGTATTTCAAATAACCAATAACAGCGACAA
Foniv_020_0     ACATCGGCACTACGATCCAGAATATCGGCGCCGTTATAGTGAAGGCCATTGTTGATGCTGCTGGCGAACTCGTATTTCAAATAACCAATAACAGCGACAA
Foniv_019_0     ACATCGGCACTACGATCCAGAATATCGGCGCCGTTATAGTGAAGGCCATTGTTGATGCTGCTGGCGAACTCGTATTTCAAATAACCAATAACAGCGACAA
Foniv_010_0     ACATCGGCACTACGATCCAGAATATCGGCGCCGTTATAGTGAAGGCCATTGTTGATGCTGCTGGCGAACTCGTATTTCAAATAACCAATAACAGCGACAA
Foniv_002_0     ACATCGGCACTACGATCCAGAATATCGGCGCCGTTATAGTGAAGGCCATTGTTGATGCTGCTGGCGAACTCGTATTTCAAATAACCAATAACAGCGACAA
Fomln_010_1     ACATCGGCACTACGATCCAGAATATCGGCGCCGTTATAGTGAAGGCCATTGTTGATGCTGCTGGCGAACTCGTATTTCAAATAACCAATAACAGCGACAA
Foniv_013_0     ACATCGGCACTACGATCCAGAATATCGGCGCCGTTATAGTGAAGGCCATTGTTGATGCTGCTGGCGAACTCGTATTTCAAATAACCAATAACAGCGACAA
Foniv_021_0     ACATCGGCACTACGATCCAGAATATCGGCGCCGTTATAGTGAAGGCCATTGTTGATGCTGCTGGCGAACTCGTATTTCAAATAACCAATAACAGCGACAA
Foniv_037_0     ACATCGGCACTACGATCCAGAATATCGGCGCCGTTATAGTGAAGGCCATTGTTGATGCTGCTGGCGAACTCGTATTTCAAATAACCAATAACAGCGACAA
Forap_PHW815_0  GGATCGGCAGTGTGATACAGAATATCGGCGTTATTGTGGTGAAGGCCATTGTTGATGCCGCTGGCGAGCTCATATCCCAAATCACCAATAACAGCCCATA
Forap_PHW815_1  ACATTGGCACCGCGGTACAGAATATCGGCGTTATTGTGGTGAAGGCCATTGTTGATGCTGCTGGCGAGCTTCTATTCCGAATCACCAATAACAGCCCATA
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fp7411 rev< Folag

fp7325 rev < Focuc

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                701
Focuc_015_1     TCCGTACCAAGTATCACTTCGTGAGACTAGCACTGCAATCGACGCCGCTACTCTGAATGTCGCTGCCCACCGTACCATCGAGTATGATCCTTTGGGCGGA
Focuc_011       TCCGTACCAAGTATCACTTCGTGAGACTAGCACTGCAATCGACGCCGCTACTCTGAATGTCGCTGCCCACCGTACCATCGAGTATGATCCTTTGGGCGGA
Focuc_013       TCCGTACCAAGTATCACTTCGTGAGACTAGCACTGCAATCGACGCCGCTACTCTGAATGTCGCTGCCCACCGTACCATCGAGTATGATCCTTTGGGCGGA
Focuc_001_1     TCCGTACCAAGTATCACTTCGTGAGACTAGCACTGCAATCGACGCCGCTACTCTGAATGTCGCTGCCCACCGTACCATCGAGTATGATCCTTTGGGCGGA
Focuc_037_1     TCCGTACCAAGTATCACTTCGTGAGACTAGCACTGCAATCGACGCCGCTACTCTGAATGTCGCTGCCCACCGTACCATCGAGTATGATCCTTTGGGCGGA
Focuc_035_1     TCCGTACCAAGTATCACTTCGTGAGACTAGCACTGCAATCGACGCCGCTACTCTGAATGTCGCTGCCCACCGTACCATCGAGTATGATCCTTTGGGCGGA
Focuc_018       TCCGTACCAAGTATCACTTCGTGAGACTCGCACTGCAATCGACGCCGCTACTCTGAATGTCGCTGCCCACCATACCATCGAGTATGATCCTTTGGGCGGA
Focuc_021       TCCGTACCAAGTATCACTTCGTGAGACTCGCACTGCAATCGACGCCGCTACTCTGAATGTCGCTGCCCACCATACCATCGAGTATGATCCTTTGGGCGGA
Focuc_030       TCCGTACCAAGTATCACTTCGTGAGACTCGCACTGCAATCGACGCCGCTACTCTGAATGTCGCTGCCCACCATACCATCGAGTATGATCCTTTGGGCGGA
Foluf_001_1     CCCGTACCAGGTATCACTTCGTGAAGTAGACACGGGATTGGACGCTGCGACTCTGAATGTCGCCGCCCGTCATACTATTGACTATGATCCCTTGGGTGGA
Foluf_002_1     CCCGTACCAGGTATCACTTCGTGAAGTAGACACGGGATTGGACGCTGCGACTCTGAATGTCGCCGCCCGTCATACTATTGACTATGATCCCTTGGGTGGA
Fopis_HDV247    CCCTTACCAGGTATCATTTCGCGAATACGACATGGAGTTAGACGCTGCAACTCTGAATGTCGCCGCGCATCATACTATTAACTATGATCCCTTGGGCGGA
Folag_001       CCCTTATAAGGTATCCATTCGCGAATTCTTCACGGAGATAGACGCTGCAAATCTGAATGTCGCCGCCCATCATACTATTGAATATGATCCATTGGGCGGA
Folag_004       CCCTTATAAGGTATCCATTCGCGAATTCTTCACGGAGATAGACGCTGCAAATCTGAATGTCGCCGCCCATCATACTATTGAATATGATCCATTGGGCGGA
Folag_002       CCCTTATAAGGTATCCATTCGCGAATTCTTCACGGAGATAGACGCTGCAAATCTGAATGTCGCCGCCCATCATACTATTGAATATGATCCATTGGGCGGA
Folag_005       CCCTTATAAGGTATCCATTCGCGAATTCTTCACGGAGATAGACGCTGCAAATCTGAATGTCGCCGCCCATCATACTATTGAATATGATCCATTGGGCGGA
Fomln_010_0     CCCTTATAAGGTATCCATTCGCGAATTCTTCACGGAGATAGACGCTGCAAATCTGAATGTCGCCGCCCATCATACTATTGAATATGATCCATTGGGCGGA
Focuc_037_0     TCTTTACAAGGTACCACTTCGCGAAGTAGGCACGTGGGCAGACGCCGCGAATCTGGATGTCGCCGCGCGTCATACCATTGAATATGATCCGTTGGGCGGA
Foluf_002_0     TCTTTACAAGGTACCACTTCGCGAAGTAGGCACGTGGGCAGACGCCGCGAATCTGGATGTCGCCGCGCGTCATACCATTGAATATGATCCGTTGGGCGGA
Focuc_001_0     TCTTTACAAGGTACCACTTCGCGAAGTAGGCACGTGGGCAGACGCCGCGAATCTGGATGTCGCCGCGCGTCATACCATTGAATATGATCCGTTGGGCGGA
Focuc_015_0     TCTTTACAAGGTACCACTTCGCGAAGTAGGCACGTGGGCAGACGCCGCGAATCTGGATGTCGCCGCGCGTCATACCATTGAATATGATCCGTTGGGCGGA
Focuc_035_0     TCTTTACAAGGTACCACTTCGCGAAGTAGGCACGTGGGCAGACGCCGCGAATCTGGATGTCGCCGCGCGTCATACCATTGAATATGATCCGTTGGGCGGA
Foluf_001_0     TCTTTACAAGGTACCACTTCGCGAAGTAGGCACGTGGGCAGACGCCGCGAATCTGGATGTCGCCGCGCGTCATACCATTGAATATGATCCGTTGGGCGGA
Fomln_010_2     ACCTTACCTGGTATCATTTCGTGAAAAAGATTCGGAGATAGACTTTGCGGATCCGATTGTCGCCGGGCGTCATACTATTTCCTATGATCCCTTGGGCGGA
Foniv_002_1     ACCTTACCTGGTATCATTTCGTGAAAAAGATTCGGAGATAGACTTTGCGGATCCGATTGTCGCCGGGCGTCATACTATTTCCTATGATCCCTTGGGCGGA
Foniv_015_1     ACCTTACCTGGTATCATTTCGTGAAAAAGATTCGGAGATAGACTTTGCGGATCCGATTGTCGCCGGGCGTCATACTATTTCCTATGATCCCTTGGGCGGA
Foniv_021_1     ACCTTACCTGGTATCATTTCGTGAAAAAGATTCGGAGATAGACTTTGCGGATCCGATTGTCGCCGGGCGTCATACTATTTCCTATGATCCCTTGGGCGGA
Foniv_005_1     ACCTTACCTGGTATCATTTCGTGAAAAAGATTCGGAGATAGACTTTGCGGATCCGATTGTCGCCGGGCGTCATACTATTTCCTATGATCCCTTGGGCGGA
Foniv_010_1     ACCTTACCTGGTATCATTTCGTGAAAAAGATTCGGAGATAGACTTTGCGGATCCGATTGTCGCCGGGCGTCATACTATTTCCTATGATCCCTTGGGCGGA
Foniv_013_1     ACCTTACCTGGTATCATTTCGTGAAAAAGATTCGGAGATAGACTTTGCGGATCCGATTGTCGCCGGGCGTCATACTATTTCCTATGATCCCTTGGGCGGA
Foniv_019_1     ACCTTACCTGGTATCATTTCGTGAAAAAGATTCGGAGATAGACTTTGCGGATCCGATTGTCGCCGGGCGTCATACTATTTCCTATGATCCCTTGGGCGGA
Foniv_020_1     ACCTTACCTGGTATCATTTCGTGAAAAAGATTCGGAGATAGACTTTGCGGATCCGATTGTCGCCGGGCGTCATACTATTTCCTATGATCCCTTGGGCGGA
Foniv_037_1     ACCTTACCTGGTATCATTTCGTGAAAAAGATTCGGAGATAGACTTTGCGGATCCGATTGTCGCCGGGCGTCATACTATTTCCTATGATCCCTTGGGCGGA
Foniv_005_0     CCTATACCAGATATCACTTCGGGAACAAGACATGGACGTCGACGCTGCGTCTCTAAATGTCGCCGGGTATCATGTTATTAACTATGATCCGTTGGGCGGA
Foniv_015_0     CCTATACCAGATATCACTTCGGGAACAAGACATGGACGTCGACGCTGCGTCTCTAAATGTCGCCGGGTATCATGTTATTAACTATGATCCGTTGGGCGGA
Foniv_020_0     CCTATACCAGATATCACTTCGGGAACAAGACATGGACGTCGACGCTGCGTCTCTAAATGTCGCCGGGTATCATGTTATTAACTATGATCCGTTGGGCGGA
Foniv_019_0     CCTATACCAGATATCACTTCGGGAACAAGACATGGACGTCGACGCTGCGTCTCTAAATGTCGCCGGGTATCATGTTATTAACTATGATCCGTTGGGCGGA
Foniv_010_0     CCTATACCAGATATCACTTCGGGAACAAGACATGGACGTCGACGCTGCGTCTCTAAATGTCGCCGGGTATCATGTTATTAACTATGATCCGTTGGGCGGA
Foniv_002_0     CCTATACCAGATATCACTTCGGGAACAAGACATGGACGTCGACGCTGCGTCTCTAAATGTCGCCGGGTATCATGTTATTAACTATGATCCGTTGGGCGGA
Fomln_010_1     CCTATACCAGATATCACTTCGGGAACAAGACATGGACGTCGACGCTGCGTCTCTAAATGTCGCCGGGTATCATGTTATTAACTATGATCCGTTGGGCGGA
Foniv_013_0     CCTATACCAGATATCACTTCGGGAACAAGACATGGACGTCGACGCTGCGTCTCTAAATGTCGCCGGGTATCATGTTATTAACTATGATCCGTTGGGCGGA
Foniv_021_0     CCTATACCAGATATCACTTCGGGAACAAGACATGGACGTCGACGCTGCGTCTCTAAATGTCGCCGGGTATCATGTTATTAACTATGATCCGTTGGGCGGA
Foniv_037_0     CCTATACCAGATATCACTTCGGGAACAAGACATGGACGTCGACGCTGCGTCTCTAAATGTCGCCGGGTATCATGTTATTAACTATGATCCGTTGGGCGGA
Forap_PHW815_0  CACTTACCAGGTATCACTTCGCGAACATGACGTGGCTATAGATGCTGCGATTGTGAATGTCGCCGCGCATCATACTATTGAATATGATAAGTTGGGCGGA
Forap_PHW815_1  TCCTTACCAGGTGTCACTTCGTGAAGTAGGCATGGGGTTAGACGCTGCGACTCTGAATGTCGCCGGGCGTCATACTATCGACTATGAGCCACTGGGCGGA
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fp7411 rev< Folag

Marker #99

fp7337 rev < Foluf

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                801
Focuc_015_1     ATCAACCCAGGAGACATTATTTCCATCAACACCCAAGTTAGGGGTTAAATGTCACTGGCGTGGAAGCTTGGG-ATAAGGGGATGAAGTGGGTTTTTTTG-
Focuc_011       ATCAACCCAGGAGACATTATTTCCATCAACACCCAAGTTAGGGGTTAAATGTCACTGGCGTGGAAGCTTGGG-ATAAGGGGATGAAGTGGGTTTTTTTG-
Focuc_013       ATCAACCCAGGAGACATTATTTCCATCAACACCCAAGTTAGGGGTTAAATGTCACTGGCGTGGAAGCTTGGG-ATAAGGGGATGAAGTGGGTTTTTTTG-
Focuc_001_1     ATCAACCCAGGAGACATTATTTCCATCAACACCCAAGTTAGGGGTTAAATGTCACTGGCGTGGAAGCTTGGG-ATAAGGGGATGAAGTGGGTTTTTTTG-
Focuc_037_1     ATCAACCCAGGAGACATTATTTCCATCAACACCCAAGTTAGGGGTTAAATGTCACTGGCGTGGAAGCTTGGG-ATAAGGGGATGAAGTGGGTTTTTTTG-
Focuc_035_1     ATCAACCCAGGAGACATTATTTCCATCAACACCCAAGTTAGGGGTTAAATGTCACTGGCGTGGAAGCTTGGG-ATAAGGGGATGAAGTGGGTTTTTTTG-
Focuc_018       ATCAACCCAGGAGACATTATTTCCATCAACACCCAAGTTAGGGGTTAAATGTCACTGGCGTGGAAGCTTGGG-ATAAGGGGATGAAGTGGGTTTTTTTG-
Focuc_021       ATCAACCCAGGAGACATTATTTCCATCAACACCCAAGTTAGGGGTTAAATGTCACTGGCGTGGAAGCTTGGG-ATAAGGGGATGAAGTGGGTTTTTTTG-
Focuc_030       ATCAACCCAGGAGACATTATTTCCATCAACACCCAAGTTAGGGGTTAAATGTCACTGGCGTGGAAGCTTGGG-ATAAGGGGATGAAGTGGGTTTTTTTG-
Foluf_001_1     ATTAATCCAGGAGATATTATCTCAATCAATACTCAGAATAAAGGATGATGG-----CGT---GAAGTTTAGC-ACGAGGGAATCAAGTGGGTTTTTTG--
Foluf_002_1     ATTAATCCAGGAGATATTATCTCAATCAATACTCAGAATAAAGGATGATGG-----CGT---GAAGTTTAGC-ACGAGGGAATCAAGTGGGTTTTTTG--
Fopis_HDV247    ATCAAGCCAGGGGATTTAATTTCAATCAATGCGCAGAGGAAAGGCTGAGGG-----AAC---GGAGCTTGAGCGTGAGGGAATACAGTGGGTTTTTTG--
Folag_001       ATCAAAGCAGGGGATTCACTCACAATCAACACCCAGAAAATAGGCTGAGGG-----AAT---GGAGCTTGAGCGTGAGGGAATACAGTGGGTTTTTTG--
Folag_004       ATCAAAGCAGGGGATTCACTCACAATCAACACCCAGAAAATAGGCTGAGGG-----AAT---GGAGCTTGAGCGTGAGGGAATACAGTGGGTTTTTTG--
Folag_002       ATCAAAGCAGGGGATTCACTCACAATCAACACCCAGAAAATAGGCTGAGGG-----AAT---GGAGCTTGAGCGTGAGGGAATACAGTGGGTTTTTTG--
Folag_005       ATCAAAGCAGGGGATTCACTCACAATCAACACCCAGAAAATAGGCTGAGGG-----AAT---GGAGCTTGAGCGTGAGGGAATACAGTGGGTTTTTTG--
Fomln_010_0     ATCAAAGCAGGGGATTCACTCACAATCAACACCCAGAAAATAGGCTGAGGG-----AAT---GGAGCTTGAGCGTGAGGGAATACAGTGGGTTTTTTG--
Focuc_037_0     ATCAAGCCAGGGAATGAGATCTCCATCAACGTCCAGGGCAGAGACTGAGAG-----GAT---GGGGATTTA--GCTTGAGAATGCAGTGGGTTTTTG---
Foluf_002_0     ATCAAGCCAGGGAATGAGATCTCCATCAACGTCCAGGGCAGAGACTGAGAG-----GAT---GGGGATTTA--GCTTGAGAATGCAGTGGGTTTTTG---
Focuc_001_0     ATCAAGCCAGGGAATGAGATCTCCATCAACGTCCAGGGCAGAGACTGAGAG-----GAT---GGGGATTTA--GCTTGAGAATGCAGTGGGTTTTTG---
Focuc_015_0     ATCAAGCCAGGGAATGAGATCTCCATCAACGTCCAGGGCAGAGACTGAGAG-----GAT---GGGGATTTA--GCTTGAGAATGCAGTGGGTTTTTG---
Focuc_035_0     ATCAAGCCAGGGAATGAGATCTCCATCAACGTCCAGGGCAGAGACTGAGAG-----GAT---GGGGATTTA--GCTTGAGAATGCAGTGGGTTTTTG---
Foluf_001_0     ATCAAGCCAGGGAATGAGATCTCCATCAACGTCCAGGGCAGAGACTGAGAG-----GAT---GGGGATTTA--GCTTGAGAATGCAGTGGGTTTTTG---
Fomln_010_2     GTCAAGCCAGGGGCAGTCATCGCTCTCCGCGCACAGATTAGACCCTGAGAG-----AGCATAGAAGTTTAGC-GTGAGGGAATGCAGTGGGTTTTTTG--
Foniv_002_1     GTCAAGCCAGGGGCAGTCATCGCTCTCCGCGCACAGATTAGACCCTGAGAG-----AGCATAGAAGTTTAGC-GTGAGGGAATGCAGTGGGTTTTTTG--
Foniv_015_1     GTCAAGCCAGGGGCAGTCATCGCTCTCCGCGCACAGATTAGACCCTGAGAG-----AGCATAGAAGTTTAGC-GTGAGGGAATGCAGTGGGTTTTTTG--
Foniv_021_1     GTCAAGCCAGGGGCAGTCATCGCTCTCCGCGCACAGATTAGACCCTGAGAG-----AGCATAGAAGTTTAGC-GTGAGGGAATGCAGTGGGTTTTTTG--
Foniv_005_1     GTCAAGCCAGGGGCAGTCATCGCTCTCCGCGCACAGATTAGACCCTGAGAG-----AGCATAGAAGTTTAGC-GTGAGGGAATGCAGTGGGTTTTTTG--
Foniv_010_1     GTCAAGCCAGGGGCAGTCATCGCTCTCCGCGCACAGATTAGACCCTGAGAG-----AGCATAGAAGTTTAGC-GTGAGGGAATGCAGTGGGTTTTTTG--
Foniv_013_1     GTCAAGCCAGGGGCAGTCATCGCTCTCCGCGCACAGATTAGACCCTGAGAG-----AGCATAGAAGTTTAGC-GTGAGGGAATGCAGTGGGTTTTTTG--
Foniv_019_1     GTCAAGCCAGGGGCAGTCATCGCTCTCCGCGCACAGATTAGACCCTGAGAG-----AGCATAGAAGTTTAGC-GTGAGGGAATGCAGTGGGTTTTTTG--
Foniv_020_1     GTCAAGCCAGGGGCAGTCATCGCTCTCCGCGCACAGATTAGACCCTGAGAG-----AGCATAGAAGTTTAGC-GTGAGGGAATGCAGTGGGTTTTTTG--
Foniv_037_1     GTCAAGCCAGGGGCAGTCATCGCTCTCCGCGCACAGATTAGACCCTGAGAG-----AGCATAGAAGTTTAGC-GTGAGGGAATGCAGTGGGTTTTTTG--
Foniv_005_0     ATCAAACCAGGGGATGTCATCT------------------------------------------------------------------------------
Foniv_015_0     ATCAAACCAGGGGATGTCATCTCAATCAACTTCCAAAAGAAAGGCTAAGAG-----AAT---GGAGCTTAA--GTAAAGGAATACAGTGGTTTTTTTTT
Foniv_020_0     ATCAAACCAGGGGATGTCATCTCAATCAACTTCCAAAAGAAAGGCTAAGAG-----AAT---GGAGCTTAA--GTAAAGGAATACAGTGGTTTTTTTT--
Foniv_019_0     ATCAAACCAGGGGATGTCATCTCAATCAACTTCCAAAAGAAAGGCTAAGAG-----AAT---GGAGCTTAA--GTAAAGGAATACAGTGGTTTTTTTTTT
Foniv_010_0     ATCAAACCAGGGGATGTCATCTCAATCAACTTCCAAAAGAAAGGCTAAGAG-----AAT---GGAGCTTAA--GTAAAGGAATACAGTGGTTTTTTTT--
Foniv_002_0     ATCAAACCAGGGGATGTCATCTCAATCAACTTCCAAAAGAAAGGCTAAGAG-----AAT---GGAGCTTAA--GTAAAGGAATACAGTGGTTTTTTTTTT
Fomln_010_1     ATCAAACCAGGGGATGTCATCTCAATCAACTTCCAAAAGAAAGGCTAAGAG-----AAT---GGAGCTTAA--GTAAAGGAATACAGTGGTTTTTTTTTT
Foniv_013_0     ATCAAACCAGGGGATGTCATCTCAATCAACTTCCAAAAGAAAGGCTAAGAG-----AAT---GGAGCTTAA--GTAAAGGAATACAGTGGTTTTTTTTTT
Foniv_021_0     ATCAAACCAGGGGATGTCATCTCAATCAACTTCCAAAAGAAAGGCTAAGAG-----AAT---GGAGCTTAA--GTAAAGGAATACAGTGGTTTTTTTTTT
Foniv_037_0     ATCAAACCAGGGGATGTCATCTCAATCAACTTCCAAAAGAAAGGCTAAGAG-----AAT---GGAGCTTAA--GTAAAGGAATACAGTGGTTTTTTTTTT
Forap_PHW815_0  ATTAAACCAGGGGCTATAATCTCAGTCAACACACAAACCAG---CTGAGGG-----AAC---GGAGCTTGA--GTCCAAGAATACAGTGGGTTTTTTG--
Forap_PHW815_1  ATTAACCCAGGAGATAGGATCACAATCTACACCCAGAACAAAGGCTGAGAG-----AAT---GGAGCTTGA--GTGAAGGAATACAGTGGGTTTTTTG--

                901
Focuc_015_1     ------------CCGCGTTGT---GGTTTT-CCCACACTTAATAATACA--------TGTCTTCTCTTATTTCCTAGC---------CTTAAAAT---AA
Focuc_011       ------------CCGCGTTGT---GGTTTT-CCCACACTTAATAATACA--------TGTCTTCTCTTATTTCCTAGC---------CTTAAAAT---AA
Focuc_013       ------------CCGCGTTGT---GGTTTT-CCCACACTTAATAATACA--------TGTCTTCTCTTATTTCCTAGC---------CTTAAAAT---AA
Focuc_001_1     ------------CCGCGTTGT---GGTTTT-CCCACACTTAATAATACA--------TGTCTTCTCTTATTTCCTAGC---------CTTAAAAT---AA
Focuc_037_1     ------------CCGCGTTGT---GGTTTT-CCCACACTTAATAATACA--------TGTCTTCTCTTATTTCCTAGC---------CTTAAAAT---AA
Focuc_035_1     ------------CCGCGTTGT---GGTTTT-CCCACACTTAATAATACA--------TGTCTTCTCTTATTTCCTAGC---------CTTAAAAT---AA
Focuc_018       ------------CCGCGTTGT---GGTTTT-CCCACACTTAATAATACA--------TGTCTTCTCTTATTTCCTAGC---------CTTAAAAT---AA
Focuc_021       ------------CCGCGTTGT---GGTTTT-CCCACACTTAATAATACA--------TGTCTTCTCTTATTTCCTAGC---------CTTAAAAT---AA
Focuc_030       ------------CCGCGTTGT---GGTTTT-CCCACACTTAATAATACA--------TGTCTTCTCTTATTTCCTAGC---------CTTAAAAT---AA
Foluf_001_1     ------------CCTCGTTAT---GGTTTT-CCCACA-------------------------------------------------------AAGG---CA
Foluf_002_1     ------------CCTCGTTAT---GGTTTT-CCCACA-------------------------------------------------------AAGG---CA
Fopis_HDV247    ------------CCGCGTTGT---GGTTTT-CCCACACCCAATTACGTA--------TTTCCTCTCTTACCTACAGGG---------GTTAAAGA---CA
Folag_001       ------------CCGCGTTGT---GGTTTT-CCCACACCCAATTACATA--------TTTCCTCTCTTGCCTACAGGG---------GTTAAAGG---CA
Folag_004       ------------CCGCGTTGT---GGTTTT-CCCACACCCAATTACATA--------TTTCCTCTCTTGCCTACAGGG---------GTTAAAGG---CA
Folag_002       ------------CCGCGTTGT---GGTTTT-CCCACACCCAATTACATA--------TTTCCTCTCTTGCCTACAGGG---------GTTAAAGG---CA
Folag_005       ------------CCGCGTTGT---GGTTTT-CCCACACCCAATTACATA--------TTTCCTCTCTTGCCTACAGGG---------GTTAAAGG---CA
Fomln_010_0     ------------CCGCGTTGT---GGTTTT-CCCACACCCAATTACATA--------TTTCCTCTCTTGCCTACAGGG---------GTTAAAGG---CA
Focuc_037_0     ------------CCGCAGTGT---GGTTTTTCCCACACCCAAGTACATA--------TTTCCTCTCCTACATGCAGGGGTGTTGAATGTTGGAGGGTTCA
Foluf_002_0     ------------CCGCAGTGT---GGTTTTTCCCACACCCAAGTACATA--------TTTCCTCTCCTACATGCAGGGGTGTTGAATGTTGGAGGGTTCA
Focuc_001_0     ------------CCGCAGTGT---GGTTTTTCCCACACCCAAGTACATA--------TTTCCTCTCCTACATGCAGGGGTGTTGAATGTTGGAGGGTTCA
Focuc_015_0     ------------CCGCAGTGT---GGTTTTTCCCACACCCAAGTACATA--------TTTCCTCTCCTACATGCAGGGGTGTTGAATGTTGGAGGGTTC-
Focuc_035_0     ------------CCGCAGTGT---GGTTTTTCCCACACCCAAGTACATA--------TTTCCTCTCCTACATGCAGGGGTGTTGAATGTTGGAGGGTTC-
Foluf_001_0     ------------CCGCAGTGT---GGTTTTTCCCACACCCAAGTACATA--------TTTCCTCTCCTACATGCAGGGGTGTTGAATGTTGGAGGGTTCA
Fomln_010_2     ------------CCGCGTTGT---GGTTTTCCCCACACCCAATTACATA--------TTTCCGCTCTTACCTACAGGG---------GCTAAAGG---CA
Foniv_002_1     ------------CCGCGTTGT---GGTTTTCCCCACACCCAATTACATA--------TTTCCGCTCTTACCTACAGGG---------GCTAAAGG---CA
Foniv_015_1     ------------CCGCGTTGT---GGTTTTCCCCACACCCAATTACATA--------TTTCCGCTCTTACCTACAGGG---------GCTAAAGG---CA
Foniv_021_1     ------------CCGCGTTGT---GGTTTTCCCCACACCCAATTACATA--------TTTCCGCTCTTACCTACAGGG---------GCTAAAGG---CA
Foniv_005_1     ------------CCGCGTTGT---GGTTTTCCCCACACCCAATTACATA--------TTTCCGCTCTTACCTACAGGG---------GCTAAAGG---CA
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Foniv_019_1     ------------CCGCGTTGT---GGTTTTCCCCACACCCAATTACATA--------TTTCCGCTCTTACCTACAGGG---------GCTAAAGG---CA
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Foniv_037_1     ------------CCGCGTTGT---GGTTTTCCCCACACCCAATTACATA--------TTTCCGCTCTTACCTACAGGG---------GCTAAAGG---CA
Foniv_005_0     ------------------------------------------------------------------------------------------------------
Foniv_015_0     TTTTTTTTTTTTTTTCGTTGTTTGGGTTTTTTTTTTTTTTTTTTTTTT--------TTTTTTTTTTTTTTTT----------------------------
Foniv_020_0     ------------------------------------------------------------TTTTTTTTTT-------------------------------
Foniv_019_0     TTTTTTTTTTTTTCCTGGTTT---GGTTTTTTCTATTTTCTTTTTTTTT--------TTTTTTTTTTTTTTTT----------------------------
Foniv_010_0     ------------------------------------------------------------TTTTTTTTTT-------------------------------
Foniv_002_0     TTTTTTTTG---CCGCGTTGA---GGTTTT-CCCATACCCAATGCCATA--------TTTCCTTTCTTTTTTATAGAG---------GTTAGAAGG--CA
Fomln_010_1     TTTTTTTTG---CCGCGTTGA---GGTTTT-CCCATACCCAATGCCATA--------TTTCCTTTCTTTTTTATAGAG---------GTTAGAAGG--CA
Foniv_013_0     TTTTTTTTG---CCGCGTTGA---GGTTTT-CCCATACCCAATGCCATA--------TTTCCTTTCTTTTTTATAGAG---------GTTAGAAGG--CA
Foniv_021_0     TTTTTTG-----CCGCGTTGA---GGTTTT-CCCATACCCAATGCCATA--------TTTCCTTTCTTTTTTATAGAG---------GTTAGAAGG--CA
Foniv_037_0     TTTTTTG-----CCGCGTTGA---GGTTTT-CCCATACCCAATGCCATA--------TTTCCTTTCTTTTTTATAGAG---------GTTAGAAGG--CA
Forap_PHW815_0  ------------CCTTGTTGT---GGTTTT-CCCACACCCAATTACATA-----------TTTCTCTTAACTACAAGG---------GCTAAAGG---CA
Forap_PHW815_1  ------------CCGCGTTGT---GGTTTT-CCCACACCCAATTACATAATTATTTCCTTTCTCTCTTACATGCAGGG---------GTCGAAGA---CA
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Marker #99

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                1001
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Focuc_011       ATTCTAAGTTTAAGATGATTTTATCCAAACAAATT---------------------------------------------
Focuc_013       ATTCTAAGTTTAAGATGATTTTATCCAAACAAATT---------------------------------------------
Focuc_001_1     ATTCTAAGTTTAAGATGATTTTATCCAAACAAATTA--------------------------------------------
Focuc_037_1     ATTCTAAGTTTAAGATGATTTTATCCAAACAAATTA--------------------------------------------
Focuc_035_1     ATTCTAAGTTTAAGATGATTTTATCCAAACAAATT---------------------------------------------
Focuc_018       ATTCTAAGTTTAAGATGATTTTATCCAAACAAATTA--------------------------------------------
Focuc_021       ATTCTAAGTTTAAGATGATTTTATCCAAACAAATTA--------------------------------------------
Focuc_030       ATTCTAAGTTTAAGATGATTTTATCCAAACAAATTA--------------------------------------------
Foluf_001_1     ACTCTAAACTCAGGAGTATGGTAGTCAATTAGAAAGCTAAAGAACTCATAGCTAGGTTTAATTTTGTCAGCCTGTTACGCA
Foluf_002_1     ACTCTAAACTCAGGAGTATGGTAGTCAATTAGAAAGCTAAAGAACTCATAGCTAGGTTTAATTTTGTCAGCCTGTTACGCA
Fopis_HDV247    GCTTTATACTCAGGATTGTGGTAGTCAATTAGACGGCTAAAGA-------------------------------------
Folag_001       ACTTTATACTCAGGATTGTGGTAGTGAATTAGACGGCCAAAGA-------------------------------------
Folag_004       ACTTTATACTCAGGATTGTGGTAGTGAATTAGACGGCCAAAGA-------------------------------------
Folag_002       ACTTTATACTCAGGATTGTGGTAGTGAATTAGACGGCCAAAGAA------------------------------------
Folag_005       ACTTTATACTCAGGATTGTGGTAGTGAATTAGACGGCCAAAGAA------------------------------------
Fomln_010_0     ACTTTATACTCAGGATTGTGGTAGTGAATTAGACGGCCAAAGAA------------------------------------
Focuc_037_0     TCCTCAACTTCAGGATTAAGGTTCAGGATTA-------------------------------------------------
Foluf_002_0     CCCTCAACTTCAGGATTAAGGTTCAGGATTAAAG----------------------------------------------
Focuc_001_0     CCCTCAACTTCAGGATTAAGGTTCAGGATTAAA-----------------------------------------------
Focuc_015_0     ---------------------------------------------------------------------------------
Focuc_035_0     ---------------------------------------------------------------------------------
Foluf_001_0     CCCTCAACTTCAGGATTAAGGTTCAGGATTAAA-----------------------------------------------
Fomln_010_2     ACTTTATACTCAGGATTGTGGTAGTCAATTAGACGGCTAAA---------------------------------------
Foniv_002_1     ACTTTATACTCAGGATTGTGGTAGTCAATTAGACGGCTAAA---------------------------------------
Foniv_015_1     ACTTTATACTCAGGATTGTGGTAGTCAATTAGACGGCTAAA---------------------------------------
Foniv_021_1     ACTTTATACTCAGGATTGTGGTAGTCAATTAGACGGCTAAA---------------------------------------
Foniv_005_1     ACTTTATACTCAGGATTGTGGTAGTCAATTAGACGGCTAA----------------------------------------
Foniv_010_1     ACTTTATACTCAGGATTGTGGTAGTCAATTAGACGGCTAA----------------------------------------
Foniv_013_1     ACTTTATACTCAGGATTGTGGTAGTCAATTAGACGGCTAA----------------------------------------
Foniv_019_1     ACTTTATACTCAGGATTGTGGTAGTCAATTAGACGGCTAA----------------------------------------
Foniv_020_1     ACTTTATACTCAGGATTGTGGTAGTCAATTAGACGGCTAA----------------------------------------
Foniv_037_1     ACTTTATACTCAGGATTGTGGTAGTCAATTAGACGGCTAA----------------------------------------
Foniv_005_0     ---------------------------------------------------------------------------------
Foniv_015_0     ---------------------------------------------------------------------------------
Foniv_020_0     ---------------------------------------------------------------------------------
Foniv_019_0     ---------------------------------------------------------------------------------
Foniv_010_0     ---------------------------------------------------------------------------------
Foniv_002_0     GCTCTATACTCAGGACTGTGGTAGTCAATTACAC----------------------------------------------
Fomln_010_1     GCTCTATACTCAGGACTGTGGTAGTCAATTACAC----------------------------------------------
Foniv_013_0     GCTCTATACTCAGGACTGTGGTAGTCAATTACAC----------------------------------------------
Foniv_021_0     GCTCTATACTCAGGACTGTGGTAGTCAATTACACGG--------------------------------------------
Foniv_037_0     GCTCTATACTCAGGACTGTGGTAGTCAATTACACG---------------------------------------------
Forap_PHW815_0  ACTCTATACTCAGGATTGTGGTAGTCAATTAGAAGGCTAACGAACTTTTGG------------------------------
Forap_PHW815_1  ACTCTATACCCAGGATTGTGGTAGTCAATTGGACGGCT--------------------------------------------
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Marker #99

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                  1
Foniv_002         -----CCTATCTCTTTGCTTTAGG----CTTTCCCTAACTCGCATTGA-ACTGTAGAGGTATCCTGGGTACCTGGTAATATCGGCAAGACCGGCATATCG
Foniv_005         -----CCTATCTCTTTGCTTTAGG----CTTTCCCTAACTCGCATTGA-ACTGTAGAGGTATCCTGGGTACCTGGTAATATCGGCAAGACCGGCATATCG
Foniv_010         -----CCTATCTCTTTGCTTTAGG----CTTTCCCTAACTCGCATTGA-ACTGTAGAGGTATCCTGGGTACCTGGTAATATCGGCAAGACCGGCATATCG
Foniv_015         -----CCTATCTCTTTGCTTTAGG----CTTTCCCTAACTCGCATTGA-ACTGTAGAGGTATCCTGGGTACCTGGTAATATCGGCAAGACCGGCATATCG
Foniv_013         ----ACCTATCTCTTTGCTTTAGG----CTTTCCCTAACTCGCATTGA-ACTGTAGAGGTATCCTGGGTACCTGGTAATATCGGCAAGACCGGCATATCG
Foniv_019         ----ACCTATCTCTTTGCTTTAGG----CTTTCCCTAACTCGCATTGA-ACTGTAGAGGTATCCTGGGTACCTGGTAATATCGGCAAGACCGGCATATCG
Foniv_020         ----ACCTATCTCTTTGCTTTAGG----CTTTCCCTAACTCGCATTGA-ACTGTAGAGGTATCCTGGGTACCTGGTAATATCGGCAAGACCGGCATATCG
Foniv_021         ----ACCTATCTCTTTGCTTTAGG----CTTTCCCTAACTCGCATTGA-ACTGTAGAGGTATCCTGGGTACCTGGTAATATCGGCAAGACCGGCATATCG
Foniv_037         ----ACCTATCTCTTTGCTTTAGG----CTTTCCCTAACTCGCATTGA-ACTGTAGAGGTATCCTGGGTACCTGGTAATATCGGCAAGACCGGCATATCG
Fonar_Na5         --CACCACATCTTACGGTATCAAGTCACCTTCCGTCATATCAAATTCA-ACATTAGGACTTTCATCAA-ACCTAGACTTAC------AATCATCAT---G
Focuc_001         --CACCGCATCTTACGGTATCAAGTTACCTTCCATCATATCAATTTGA-ACATTAGAACTTTTATCTG-ACCTAGGTCTAT------AACCATCAT---G
Focuc_030         --CACCGCATCTTACGGTATCAAGTTACCTTCCATCATATCAATTTGA-ACATTAGAACTTTTATCTG-ACCTAGGTCTAT------AACCATCAT---G
Focuc_035         --CACCGCATCTTACGGTATCAAGTTACCTTCCATCATATCAATTTGA-ACATTAGAACTTTTATCTG-ACCTAGGTCTAT------AACCATCAT---G
Focuc_011         -TCACCGCATCTTACGGTATCAAGTTACCTTCCATCATATCAATTTGA-ACATTAGAACTTTTATCTG-ACCTAGGTCTAT------AACCATCAT---G
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Focuc_015         -TCACCGCATCTTACGGTATCAAGTTACCTTCCATCATATCAATTTGA-ACATTAGAACTTTTATCTG-ACCTAGGTCTAT------AACCATCAT---G
Focuc_018         -TCACCGCATCTTACGGTATCAAGTTACCTTCCATCATATCAATTTGA-ACATTAGAACTTTTATCTG-ACCTAGGTCTAT------AACCATCAT---G
Focuc_021         -TCACCGCATCTTACGGTATCAAGTTACCTTCCATCATATCAATTTGA-ACATTAGAACTTTTATCTG-ACCTAGGTCTAT------AACCATCAT---G
Focuc_037         -TCACCGCATCTTACGGTATCAAGTTACCTTCCATCATATCAATTTGA-ACATTAGAACTTTTATCTG-ACCTAGGTCTAT------AACCATCAT---G
Fomln_001         --CACCGCATCTTACGGTATCAAGTTACCTTCCATCATATCAATTTGA-ACATTAGAACTTTTATCTG-ACCTAGGTCTAT------AACCATCAT---G
Fomln_006         --CACCGCATCTTACGGTATCAAGTTACCTTCCATCATATCAATTTGA-ACATTAGAACTTTTATCTG-ACCTAGGTCTAT------AACCATCAT---G
Fomln_010         --CACCGCATCTTACGGTATCAAGTTACCTTCCATCATATCAATTTGA-ACATTAGAACTTTTATCTG-ACCTAGGTCTAT------AACCATCAT---G
Fomln_011         --CACCGCATCTTACGGTATCAAGTTACCTTCCATCATATCAATTTGA-ACATTAGAACTTTTATCTG-ACCTAGGTCTAT------AACCATCAT---G
Fomln_004         -TCACCGCATCTTACGGTATCAAGTTACCTTCCATCATATCAATTTGA-ACATTAGAACTTTTATCTG-ACCTAGGTCTAT------AACCATCAT---G
Fomln_005         -TCACCGCATCTTACGGTATCAAGTTACCTTCCATCATATCAATTTGA-ACATTAGAACTTTTATCTG-ACCTAGGTCTAT------AACCATCAT---G
Fomln_013         -TCACCGCATCTTACGGTATCAAGTTACCTTCCATCATATCAATTTGA-ACATTAGAACTTTTATCTG-ACCTAGGTCTAT------AACCATCAT---G
Fomln_016         -TCACCGCATCTTACGGTATCAAGTTACCTTCCATCATATCAATTTGA-ACATTAGAACTTTTATCTG-ACCTAGGTCTAT------AACCATCAT---G
Fophy_KOD886_1  TTCACCGCATCTTACGGTATTAAGTTACCATCTGTCATATCA-TTTGA-ACATTAGGACTTTCATCTG-ACCTAGGCCTAT------AATTCTCAT---G
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Fophy_KOD888_1  -TCACCGCATCTTACGGTATTAAGTTACCATCTGTCATATCA-TTTGA-ACATTAGGACTTTCATCTG-ACCTAGGCCTAT------AATTCTCAT---G
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Fonic_003         ---ACCGCATCTTACGGTATTAAGTTACCATCTATCATATCATCTGAACACATTAGGACTTTCATCTG-ACCTAGACCTAT------AATCATCAT---G
Fonic_010         ---ACCGCATCTTACGGTATTAAGTTACCATCTATCATATCATCTGAACACATTAGGACTTTCATCTG-ACCTAGACCTAT------AATCATCAT---G
Fonic_012         ---ACCGCATCTTACGGTATTAAGTTACCATCTATCATATCATCTGAACACATTAGGACTTTCATCTG-ACCTAGACCTAT------AATCATCAT---G
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                101
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Foniv_013         GTAAGACTAGTATATTGGCAAGACCAGCGTATCAGCAAGACCTGCAACGGGTGG---------TGTTCCTTGAAGGATGAACTAGTCTATACCAGGTTTA
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Foniv_021         GTAAGACTAGTATATTGGCAAGACCAGCGTATCAGCAAGACCTGCAACGGGTGG---------TGTTCCTTGAAGGATGAACTAGTCTATACCAGGTTTA
Foniv_037         GTAAGACTAGTATATTGGCAAGACCAGCGTATCAGCAAGACCTGCAACGGGTGG---------TGTTCCTTGAAGGATGAACTAGTCTATACCAGGTTTA
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Focuc_001         GTGAGTACTGTATTTTA-------TCTCGTGGGAAAAAGCC---TAACTTGTGGAAGCACGCCCGTCCTTTTATGGCCA--------TATACC----TCA
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Focuc_021         GTGAGTACTGTATTTTA-------TCTCGTGGGAAAAAGCC---TAACTTGTGGAAGCACGCCCGTCCTTTTATGGCCA--------TATACC----TCA
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Fomln_011         GTGAGTACTGTATTTTA-------TCTCGTGGGAAAAAGCC---TAACTTGTGGAAGCACGCCCGTCCTTTTATGGCCA--------TATACC----TCA
Fomln_004         GTGAGTACTGTATTTTA-------TCTCGTGGGAAAAAGCC---TAACTTGTGGAAGCACGCCCGTCCTTTTATGGCCA--------TATACC----TCA
Fomln_005         GTGAGTACTGTATTTTA-------TCTCGTGGGAAAAAGCC---TAACTTGTGGAAGCACGCCCGTCCTTTTATGGCCA--------TATACC----TCA
Fomln_013         GTGAGTACTGTATTTTA-------TCTCGTGGGAAAAAGCC---TAACTTGTGGAAGCACGCCCGTCCTTTTATGGCCA--------TATACC----TCA
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Fonic_003         GTGGGTACTGTCTTTTA-------TGTCATGAAAAAAAGCC---TAACTTTTGGAAGCTCGCCCGTCCTTTTATGGCCA--------TATATG----TCA
Fonic_010         GTGGGTACTGTCTTTTA-------TGTCATGAAAAAAAGCC---TAACTTTTGGAAGCTCGCCCGTCCTTTTATGGCCA--------TATATG----TCA
Fonic_012         GTGGGTACTGTCTTTTA-------TGTCATGAAAAAAAGCC---TAACTTTTGGAAGCTCGCCCGTCCTTTTATGGCCA--------TATATG----TCA
Fophy_KOD886_0  GTGGGTACTGTCTTTTA-------TGTCGTGAAAAAAAGCC---TAACTTTTGGAAGCTCGCCCGTCCTTTTATGGCCA--------TATACC----TCG
Fophy_KOD887_0  GTGGGTACTGTCTTTTA-------TGTCGTGAAAAAAAGCC---TAACTTTTGGAAGCTCGCCCGTCCTTTTATGGCCA--------TATACC----TCG
Fophy_KOD888_0  GTGGGTACTGTCTTTTA-------TGTCGTGAAAAAAAGCC---TAACTTTTGGAAGCTCGCCCGTCCTTTTATGGCCA--------TATACC----TCG
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Marker #21

fp7309 fwd > Focuc

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                201
Foniv_002       TATTGGCAGGATTGTAAGGGTTTGATGGTGA--GCGGTGTGGAGTGCT----------CTCTCTGAATAGATAGGTAATACTG---GTAAGGCTTCC
Foniv_005       TATTGGCAGGATTGTAAGGGTTTGATGGTGA--GCGGTGTGGAGTGCT----------CTCTCTGAATAGATAGGTAATACTG---GTAAGGCTTCC
Foniv_010       TATTGGCAGGATTGTAAGGGTTTGATGGTGA--GCGGTGTGGAGTGCT----------CTCTCTGAATAGATAGGTAATACTG---GTAAGGCTTCC
Foniv_015       TATTGGCAGGATTGTAAGGGTTTGATGGTGA--GCGGTGTGGAGTGCT----------CTCTCTGAATAGATAGGTAATACTG---GTAAGGCTTCC
Foniv_013       TATTGGCAGGATTGTAAGGGTTTGATGGTGA--GCGGTGTGGAGTGCT----------CTCTCTGAATAGATAGGTAATACTG---GTAAGGCTTCC
Foniv_019       TATTGGCAGGATTGTAAGGGTTTGATGGTGA--GCGGTGTGGAGTGCT----------CTCTCTGAATAGATAGGTAATACTG---GTAAGGCTTCC
Foniv_020       TATTGGCAGGATTGTAAGGGTTTGATGGTGA--GCGGTGTGGAGTGCT----------CTCTCTGAATAGATAGGTAATACTG---GTAAGGCTTCC
Foniv_021       TATTGGCAGGATTGTAAGGGTTTGATGGTGA--GCGGTGTGGAGTGCT----------CTCTCTGAATAGATAGGTAATACTG---GTAAGGCTTCC
Foniv_037       TATTGGCAGGATTGTAAGGGTTTGATGGTGA--GCGGTGTGGAGTGCT----------CTCTCTGAATAGATAGGTAATACTG---GTAAGGCTTCC
Fonar_Na5       GCCTGGCATGGTTTTA----TTCACTGGTCATGGCGGCG---AATTCTGTGCCACTGACGCTTCCTTGGTCTGAAAGCTTCGGCCGCCCGACAGGCTT-C
Focuc_001       GCCTGGCATGGCTCTA----TTCACTGGTCATGGCACAGTCTAACCCTGTCTCATTCACGCTTCCTTGGGTTGAAAGCTTCGGCCGCCCGACAGGCTT-C
Focuc_030       GCCTGGCATGGCTCTA----TTCACTGGTCATGGCACAGTCTAACCCTGTCTCATTCACGCTTCCTTGGGTTGAAAGCTTCGGCCGCCCGACAGGCTT-C
Focuc_035       GCCTGGCATGGCTCTA----TTCACTGGTCATGGCACAGTCTAACCCTGTCTCATTCACGCTTCCTTGGGTTGAAAGCTTCGGCCGCCCGACAGGCTT-C
Focuc_011       GCCTGGCATGGCTCTA----TTCACTGGTCATGGCACAGTCTAACCCTGTCTCATTCACGCTTCCTTGGGTTGAAAGCTTCGGCCGCCCGACAGGCTT-C
Focuc_013       GCCTGGCATGGCTCTA----TTCACTGGTCATGGCACAGTCTAACCCTGTCTCATTCACGCTTCCTTGGGTTGAAAGCTTCGGCCGCCCGACAGGCTT-C
Focuc_015       GCCTGGCATGGCTCTA----TTCACTGGTCATGGCACAGTCTAACCCTGTCTCATTCACGCTTCCTTGGGTTGAAAGCTTCGGCCGCCCGACAGGCTT-C
Focuc_018       GCCTGGCATGGCTCTA----TTCACTGGTCATGGCACAGTCTAACCCTGTCTCATTCACGCTTCCTTGGGTTGAAAGCTTCGGCCGCCCGACAGGCTT-C
Focuc_021       GCCTGGCATGGCTCTA----TTCACTGGTCATGGCACAGTCTAACCCTGTCTCATTCACGCTTCCTTGGGTTGAAAGCTTCGGCCGCCCGACAGGCTT-C
Focuc_037       GCCTGGCATGGCTCTA----TTCACTGGTCATGGCACAGTCTAACCCTGTCTCATTCACGCTTCCTTGGGTTGAAAGCTTCGGCCGCCCGACAGGCTT-C
Fomln_001       GCCTGGCATGGCTCTA----TTCACTGGTCATGGCACAGTCTAACCCTGTCCCACTCACGCTTCCTTGGGTTGAAAGCTTCGGCCGCCCGACAGGCTT-C
Fomln_006       GCCTGGCATGGCTCTA----TTCACTGGTCATGGCACAGTCTAACCCTGTCCCACTCACGCTTCCTTGGGTTGAAAGCTTCGGCCGCCCGACAGGCTT-C
Fomln_010       GCCTGGCATGGCTCTA----TTCACTGGTCATGGCACAGTCTAACCCTGTCCCACTCACGCTTCCTTGGGTTGAAAGCTTCGGCCGCCCGACAGGCTT-C
Fomln_011       GCCTGGCATGGCTCTA----TTCACTGGTCATGGCACAGTCTAACCCTGTCCCACTCACGCTTCCTTGGGTTGAAAGCTTCGGCCGCCCGACAGGCTT-C
Fomln_004       GCCTGGCATGGCTCTA----TTCACTGGTCATGGCACAGTCTAACCCTGTCCCACTCACGCTTCCTTGGGTTGAAAGCTTCGGCCGCCCGACAGGCTT-C
Fomln_005       GCCTGGCATGGCTCTA----TTCACTGGTCATGGCACAGTCTAACCCTGTCCCACTCACGCTTCCTTGGGTTGAAAGCTTCGGCCGCCCGACAGGCTT-C
Fomln_013       GCCTGGCATGGCTCTA----TTCACTGGTCATGGCACAGTCTAACCCTGTCCCACTCACGCTTCCTTGGGTTGAAAGCTTCGGCCGCCCGACAGGCTT-C
Fomln_016       GCCTGGCATGGCTCTA----TTCACTGGTCATGGCACAGTCTAACCCTGTCCCACTCACGCTTCCTTGGGTTGAAAGCTTCGGCCGCCCGACAGGCTT-C
Fophy_KOD886_1  GTCTGGCATGGCTCTT----TTCAATGGTCCTGGCGCAGTCCAACCTGGACCCACTCACGCTTCCTTGGTCTGAAAGCTCCGGTCGTCCGTCAGGCTT-C
Fophy_KOD887_1  GTCTGGCATGGCTCTT----TTCAATGGTCCTGGCGCAGTCCAACCTGGACCCACTCACGCTTCCTTGGTCTGAAAGCTCCGGTCGTCCGTCAGGCTT-C
Fophy_KOD888_1  GTCTGGCATGGCTCTT----TTCAATGGTCCTGGCGCAGTCCAACCTGGACCCACTCACGCTTCCTTGGTCTGAAAGCTCCGGTCGTCCGTCAGGCTT-C
Fonic_001       GTCTGGCATGGCTCTT----TTCATTGGTCCTGGCGCAGTCCAACCTGGACCCACTCATGCTTCCTTGGTCTGAAAGCTTCGGTCGTCCGTCAGGCTT-C
Fonic_003       GTCTGGCATGGCTCTT----TTCATTGGTCCTGGCGCAGTCCAACCTGGACCCACTCATGCTTCCTTGGTCTGAAAGCTTCGGTCGTCCGTCAGGCTT-C
Fonic_010       GTCTGGCATGGCTCTT----TTCATTGGTCCTGGCGCAGTCCAACCTGGACCCACTCATGCTTCCTTGGTCTGAAAGCTTCGGTCGTCCGTCAGGCTT-C
Fonic_012       GTCTGGCATGGCTCTT----TTCATTGGTCCTGGCGCAGTCCAACCTGGACCCACTCATGCTTCCTTGGTCTGAAAGCTTCGGTCGTCCGTCAGGCTT-C
Fophy_KOD886_0  GTCTGGCATGGCGCTT----TTCATTGGTCCTGGCGCAGTCCAACCCTGACCCACTCATGCTTCCTTGGTCTGAAAGCTTCGGTCGTCCGTCAGGCTT-C
Fophy_KOD887_0  GTCTGGCATGGCGCTT----TTCATTGGTCCTGGCGCAGTCCAACCCTGACCCACTCATGCTTCCTTGGTCTGAAAGCTTCGGTCGTCCGTCAGGCTT-C
Fophy_KOD888_0  GTCTGGCATGGCGCTT----TTCATTGGTCCTGGCGCAGTCCAACCCTGACCCACTCATGCTTCCTTGGTCTGAAAGCTTCGGTCGTCCGTCAGGCTT-C
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fp7589 fwd > Foniv Taqman probe_3 Foniv Taqman

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Foniv_002       CGGTACC-CCAGCTTTATGTTGCAGGTTGGCAGGCCCCTGCCAGGACAGAAACCTAGGCTTCTTATGGCTAGATG--CAAAGTCTGGAGCTGAAATCAAC
Foniv_005       CGGTACC-CCAGCTTTATGTTGCAGGTTGGCAGGCCCCTGCCAGGACAGAAACCTAGGCTTCTTATGGCTAGATG--CAAAGTCTGGAGCTGAAATCAAC
Foniv_010       CGGTACC-CCAGCTTTATGTTGCAGGTTGGCAGGCCCCTGCCAGGACAGAAACCTAGGCTTCTTATGGCTAGATG--CAAAGTCTGGAGCTGAAATCAAC
Foniv_015       CGGTACC-CCAGCTTTATGTTGCAGGTTGGCAGGCCCCTGCCAGGACAGAAACCTAGGCTTCTTATGGCTAGATG--CAAAGTCTGGAGCTGAAATCAAC
Foniv_013       CGGTACC-CCAGCTTTATGTTGCAGGTTGGCAGGCCCCTGCCAGGACAGAAACCTAGGCTTCTTATGGCTAGATG--CAAAGTCTGGAGCTGAAATCAAC
Foniv_019       CGGTACC-CCAGCTTTATGTTGCAGGTTGGCAGGCCCCTGCCAGGACAGAAACCTAGGCTTCTTATGGCTAGATG--CAAAGTCTGGAGCTGAAATCAAC
Foniv_020       CGGTACC-CCAGCTTTATGTTGCAGGTTGGCAGGCCCCTGCCAGGACAGAAACCTAGGCTTCTTATGGCTAGATG--CAAAGTCTGGAGCTGAAATCAAC
Foniv_021       CGGTACC-CCAGCTTTATGTTGCAGGTTGGCAGGCCCCTGCCAGGACAGAAACCTAGGCTTCTTATGGCTAGATG--CAAAGTCTGGAGCTGAAATCAAC
Foniv_037       CGGTACC-CCAGCTTTATGTTGCAGGTTGGCAGGCCCCTGCCAGGACAGAAACCTAGGCTTCTTATGGCTAGATG--CAAAGTCTGGAGCTGAAATCAAC
Fonar_Na5       GCGTACCATTGGTCCTTCGATACTAGCT-------CCGTTCCAGA---GGGTCCTTTTCAAACCA---CCAGACGTACTCAATCTGGGGCTGATATTCAA
Focuc_001       GACTACCATTGGTCCTTCGATACTAGCT-------CCATTCCAAG---TGATCCTTTGCATCCCA---CCAGACGTCTTCAAAATGGAGCTGAAATCAAC
Focuc_030       GACTACCATTGGTCCTTCGATACTAGCT-------CCATTCCAAG---TGATCCTTTGCATCCCA---CCAGACGTCTTCAAAATGGAGCTGAAATCAAC
Focuc_035       GACTACCATTGGTCCTTCGATACTAGCT-------CCATTCCAAG---TGATCCTTTGCATCCCA---CCAGACGTCTTCAAAATGGAGCTGAAATCAAC
Focuc_011       GACTACCATTGGTCCTTCGATACTAGCT-------CCATTCCAAG---TGATCCTTTGCATCCCA---CCAGACGTCTTCAAAATGGAGCTGAAATCAAC
Focuc_013       GACTACCATTGGTCCTTCGATACTAGCT-------CCATTCCAAG---TGATCCTTTGCATCCCA---CCAGACGTCTTCAAAATGGAGCTGAAATCAAC
Focuc_015       GACTACCATTGGTCCTTCGATACTAGCT-------CCATTCCAAG---TGATCCTTTGCATCCCA---CCAGACGTCTTCAAAATGGAGCTGAAATCAAC
Focuc_018       GACTACCATTGGTCCTTCGATACTAGCT-------CCATTCCAAG---TGATCCTTTGCATCCCA---CCAGACGTCTTCAAAATGGAGCTGAAATCAAC
Focuc_021       GACTACCATTGGTCCTTCGATACTAGCT-------CCATTCCAAG---TGATCCTTTGCATCCCA---CCAGACGTCTTCAAAATGGAGCTGAAATCAAC
Focuc_037       GACTACCATTGGTCCTTCGATACTAGCT-------CCATTCCAAG---TGATCCTTTGCATCCCA---CCAGACGTCTTCAAAATGGAGCTGAAATCAAC
Fomln_001       GACTACCATTGGTCCTTCGATACTAGCT-------CCATTCCAAG---TGATCCTTTGCATCCCA---CCAGACGTCTTCAAAATGGAGCTGAAATCAAC
Fomln_006       GACTACCATTGGTCCTTCGATACTAGCT-------CCATTCCAAG---TGATCCTTTGCATCCCA---CCAGACGTCTTCAAAATGGAGCTGAAATCAAC
Fomln_010       GACTACCATTGGTCCTTCGATACTAGCT-------CCATTCCAAG---TGATCCTTTGCATCCCA---CCAGACGTCTTCAAAATGGAGCTGAAATCAAC
Fomln_011       GACTACCATTGGTCCTTCGATACTAGCT-------CCATTCCAAG---TGATCCTTTGCATCCCA---CCAGACGTCTTCAAAATGGAGCTGAAATCAAC
Fomln_004       GACTACCATTGGTCCTTCGATACTAGCT-------CCATTCCAAG---TGATCCTTTGCATCCCA---CCAGACGTCTTCAAAATGGAGCTGAAATCAAC
Fomln_005       GACTACCATTGGTCCTTCGATACTAGCT-------CCATTCCAAG---TGATCCTTTGCATCCCA---CCAGACGTCTTCAAAATGGAGCTGAAATCAAC
Fomln_013       GACTACCATTGGTCCTTCGATACTAGCT-------CCATTCCAAG---TGATCCTTTGCATCCCA---CCAGACGTCTTCAAAATGGAGCTGAAATCAAC
Fomln_016       GACTACCATTGGTCCTTCGATACTAGCT-------CCATTCCAAG---TGATCCTTTGCATCCCA---CCAGACGTCTTCAAAATGGAGCTGAAATCAAC
Fophy_KOD886_1  GACTACCATTGGTCCTTTGATACTAGCT-------CCATTCCGAG---CGATCCTTTGCATCCCA---CCAGACGGCTTCAATCTGGAGCTGAAATCAAC
Fophy_KOD887_1  GACTACCATTGGTCCTTTGATACTAGCT-------CCATTCCGAG---CGATCCTTTGCATCCCA---CCAGACGGCTTCAATCTGGAGCTGAAATCAAC
Fophy_KOD888_1  GACTACCATTGGTCCTTTGATACTAGCT-------CCATTCCGAG---CGATCCTTTGCATCCCA---CCAGACGGCTTCAATCTGGAGCTGAAATCAAC
Fonic_001       GACTACCATTGGTCCTTTGATACTAGCT-------CCATTCCGAG---CGATCCTTTGCATCCCA---CCAGACGGCTTCAATATGGAGCTGAAATCAAC
Fonic_003       GACTACCATTGGTCCTTTGATACTAGCT-------CCATTCCGAG---CGATCCTTTGCATCCCA---CCAGACGGCTTCAATATGGAGCTGAAATCAAC
Fonic_010       GACTACCATTGGTCCTTTGATACTAGCT-------CCATTCCGAG---CGATCCTTTGCATCCCA---CCAGACGGCTTCAATATGGAGCTGAAATCAAC
Fonic_012       GACTACCATTGGTCCTTTGATACTAGCT-------CCATTCCGAG---CGATCCTTTGCATCCCA---CCAGACGGCTTCAATATGGAGCTGAAATCAAC
Fophy_KOD886_0  GACTACCATTGGTCCTTTGATACTAGCT-------CCATTCCGAG---CGATCCTTTGTATCCCA---CTAGACGGCTTCAATCTGGAGCTGAAATCAAC
Fophy_KOD887_0  GACTACCATTGGTCCTTTGATACTAGCT-------CCATTCCGAG---CGATCCTTTGTATCCCA---CTAGACGGCTTCAATCTGGAGCTGAAATCAAC
Fophy_KOD888_0  GACTACCATTGGTCCTTTGATACTAGCT-------CCATTCCGAG---CGATCCTTTGTATCCCA---CTAGACGGCTTCAATCTGGAGCTGAAATCAAC
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Marker #21

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                40 fp7590 rev < Foniv Taqman
Foniv_002          GCTTTCAGAACGTTGCTGGACGCAAACCCAAATCAGCCGGTTATTCACTTTTATGTTGAATCTACTTCGTCTTCCCAGGATGTCATCTGGCAGATCTATC
Foniv_005          GCTTTCAGAACGTTGCTGGACGCAAACCCAAATCAGCCGGTTATTCACTTTTATGTTGAATCTACTTCGTCTTCCCAGGATGTCATCTGGCAGATCTATC
Foniv_010          GCTTTCAGAACGTTGCTGGACGCAAACCCAAATCAGCCGGTTATTCACTTTTATGTTGAATCTACTTCGTCTTCCCAGGATGTCATCTGGCAGATCTATC
Foniv_015          GCTTTCAGAACGTTGCTGGACGCAAACCCAAATCAGCCGGTTATTCACTTTTATGTTGAATCTACTTCGTCTTCCCAGGATGTCATCTGGCAGATCTATC
Foniv_013          GCTTTCAGAACGTTGCTGGACGCAAACCCAAATCAGCCGGTTATTCACTTTTATGTTGAATCTACTTCGTCTTCCCAGGATGTCATCTGGCAGATCTATC
Foniv_019          GCTTTCAGAACGTTGCTGGACGCAAACCCAAATCAGCCGGTTATTCACTTTTATGTTGAATCTACTTCGTCTTCCCAGGATGTCATCTGGCAGATCTATC
Foniv_020          GCTTTCAGAACGTTGCTGGACGCAAACCCAAATCAGCCGGTTATTCACTTTTATGTTGAATCTACTTCGTCTTCCCAGGATGTCATCTGGCAGATCTATC
Foniv_021          GCTTTCAGAACGTTGCTGGACGCAAACCCAAATCAGCCGGTTATTCACTTTTATGTTGAATCTACTTCGTCTTCCCAGGATGTCATCTGGCAGATCTATC
Foniv_037          GCTTTCAGAACGTTGCTGGACGCAAACCCAAATCAGCCGGTTATTCACTTTTATGTTGAATCTACTTCGTCTTCCCAGGATGTCATCTGGCAGATCTATC
Fonar_Na5          GTTTTCAGAGCGACGCTTGACGCAAACGCGAATCAGCATGTTATCCACATCCATGTTGAATCTACTGCGACTTTCCGGGAGGTAGTCTGGCAGGTCTACC
Focuc_001          GTTTTCAGAGCGACGCTGGACGCAAACCACAACCAGCCGGTTATCAACATCCATATGGAACCTACTTCGTCTCACACCGAAGTCCACTGGCAGATTTATC
Focuc_030          GTTTTCAGAGCGACGCTGGACGCAAACCACAACCAGCCGGTTATCAACATCCATATGGAACCTACTTCGTCTCACACCGAAGTCCACTGGCAGATTTATC
Focuc_035          GTTTTCAGAGCGACGCTGGACGCAAACCACAACCAGCCGGTTATCAACATCCATATGGAACCTACTTCGTCTCACACCGAAGTCCACTGGCAGATTTATC
Focuc_011          GTTTTCAGAGCGACGCTGGACGCAAACCACAACCAGCCGGTTATCAACATCCATATGGAACCTACTTCGTCTCACACCGAAGTCCACTGGCAGATTTATC
Focuc_013          GTTTTCAGAGCGACGCTGGACGCAAACCACAACCAGCCGGTTATCAACATCCATATGGAACCTACTTCGTCTCACACCGAAGTCCACTGGCAGATTTATC
Focuc_015          GTTTTCAGAGCGACGCTGGACGCAAACCACAACCAGCCGGTTATCAACATCCATATGGAACCTACTTCGTCTCACACCGAAGTCCACTGGCAGATTTATC
Focuc_018          GTTTTCAGAGCGACGCTGGACGCAAACCACAACCAGCCGGTTATCAACATCCATATGGAACCTACTTCGTCTCACACCGAAGTCCACTGGCAGATTTATC
Focuc_021          GTTTTCAGAGCGACGCTGGACGCAAACCACAACCAGCCGGTTATCAACATCCATATGGAACCTACTTCGTCTCACACCGAAGTCCACTGGCAGATTTATC
Focuc_037          GTTTTCAGAGCGACGCTGGACGCAAACCACAACCAGCCGGTTATCAACATCCATATGGAACCTACTTCGTCTCACACCGAAGTCCACTGGCAGATTTATC
Fomln_001          GTTTTCAGAGCGACGCTGGACGCAAACCACAACCAGCCGGTTATCCACATCCATATGGAACCTACTTCGTCTCACACCGAAGTCCACTGGCAGATTTATC
Fomln_006          GTTTTCAGAGCGACGCTGGACGCAAACCACAACCAGCCGGTTATCCACATCCATATGGAACCTACTTCGTCTCACACCGAAGTCCACTGGCAGATTTATC
Fomln_010          GTTTTCAGAGCGACGCTGGACGCAAACCACAACCAGCCGGTTATCCACATCCATATGGAACCTACTTCGTCTCACACCGAAGTCCACTGGCAGATTTATC
Fomln_011          GTTTTCAGAGCGACGCTGGACGCAAACCACAACCAGCCGGTTATCCACATCCATATGGAACCTACTTCGTCTCACACCGAAGTCCACTGGCAGATTTATC
Fomln_004          GTTTTCAGAGCGACGCTGGACGCAAACCACAACCAGCCGGTTATCCACATCCATATGGAACCTACTTCGTCTCACACCGAAGTCCACTGGCAGATTTATC
Fomln_005          GTTTTCAGAGCGACGCTGGACGCAAACCACAACCAGCCGGTTATCCACATCCATATGGAACCTACTTCGTCTCACACCGAAGTCCACTGGCAGATTTATC
Fomln_013          GTTTTCAGAGCGACGCTGGACGCAAACCACAACCAGCCGGTTATCCACATCCATATGGAACCTACTTCGTCTCACACCGAAGTCCACTGGCAGATTTATC
Fomln_016          GTTTTCAGAGCGACGCTGGACGCAAACCACAACCAGCCGGTTATCCACATCCATATGGAACCTACTTCGTCTCACACCGAAGTCCACTGGCAGATTTATC
Fophy_KOD886_1     GTTTTCAGAGGATCGCTTGACGCAAACCCAAATCAGCCGGTTATTTACATCCATCTTGAATCTACTTCGTCTTCTCGGGATGTGATCTGGCAGGTCTATC
Fophy_KOD887_1     GTTTTCAGAGGATCGCTTGACGCAAACCCAAATCAGCCGGTTATTTACATCCATCTTGAATCTACTTCGTCTTCTCGGGATGTGATCTGGCAGGTCTATC
Fophy_KOD888_1     GTTTTCAGAGGATCGCTTGACGCAAACCCAAATCAGCCGGTTATTTACATCCATCTTGAATCTACTTCGTCTTCTCGGGATGTGATCTGGCAGGTCTATC
Fonic_001          GTTTTCAGAGGATCGCTTGACGCAAACCCGAATCAGCCGGTTATTCACATCCATCTTGAATCTACTTCATCTTCCCGGGATGTGATCTGGCAGGTCTATC
Fonic_003          GTTTTCAGAGGATCGCTTGACGCAAACCCGAATCAGCCGGTTATTCACATCCATCTTGAATCTACTTCATCTTCCCGGGATGTGATCTGGCAGGTCTATC
Fonic_010          GTTTTCAGAGGATCGCTTGACGCAAACCCGAATCAGCCGGTTATTCACATCCATCTTGAATCTACTTCATCTTCCCGGGATGTGATCTGGCAGGTCTATC
Fonic_012          GTTTTCAGAGGATCGCTTGACGCAAACCCGAATCAGCCGGTTATTCACATCCATCTTGAATCTACTTCATCTTCCCGGGATGTGATCTGGCAGGTCTATC
Fophy_KOD886_0     GTTTTCAGAGGATCGCTTGACGCAAACCCGAATCAGCCGGTTATTCACATCCATCTTGAATCTACTTCGTCTTCCCAGGATGTGATCTGGCAGGTCTATC
Fophy_KOD887_0     GTTTTCAGAGGATCGCTTGACGCAAACCCGAATCAGCCGGTTATTCACATCCATCTTGAATCTACTTCGTCTTCCCAGGATGTGATCTGGCAGGTCTATC
Fophy_KOD888_0     GTTTTCAGAGGATCGCTTGACGCAAACCCGAATCAGCCGGTTATTCACATCCATCTTGAATCTACTTCGTCTTCCCAGGATGTGATCTGGCAGGTCTATC

                501 fp7315 fwd > Foniv
Foniv_002          ACAGTGGGAACACTGTCGCTCGCTATAATTCAAACCGCCAACGGTTCAGCTCGCAAATGACATCGACAACTTCTGGGACACTTGCTATGATTCCATATGA
Foniv_005          ACAGTGGGAACACTGTCGCTCGCTATAATTCAAACCGCCAACGGTTCAGCTCGCAAATGACATCGACAACTTCTGGGACACTTGCTATGATTCCATATGA
Foniv_010          ACAGTGGGAACACTGTCGCTCGCTATAATTCAAACCGCCAACGGTTCAGCTCGCAAATGACATCGACAACTTCTGGGACACTTGCTATGATTCCATATGA
Foniv_015          ACAGTGGGAACACTGTCGCTCGCTATAATTCAAACCGCCAACGGTTCAGCTCGCAAATGACATCGACAACTTCTGGGACACTTGCTATGATTCCATATGA
Foniv_013          ACAGTGGGAACACTGTCGCTCGCTATAATTCAAACCGCCAACGGTTCAGCTCGCAAATGACATCGACAACTTCTGGGACACTTGCTATGATTCCATATGA
Foniv_019          ACAGTGGGAACACTGTCGCTCGCTATAATTCAAACCGCCAACGGTTCAGCTCGCAAATGACATCGACAACTTCTGGGACACTTGCTATGATTCCATATGA
Foniv_020          ACAGTGGGAACACTGTCGCTCGCTATAATTCAAACCGCCAACGGTTCAGCTCGCAAATGACATCGACAACTTCTGGGACACTTGCTATGATTCCATATGA
Foniv_021          ACAGTGGGAACACTGTCGCTCGCTATAATTCAAACCGCCAACGGTTCAGCTCGCAAATGACATCGACAACTTCTGGGACACTTGCTATGATTCCATATGA
Foniv_037          ACAGTGGGAACACTGTCGCTCGCTATAATTCAAACCGCCAACGGTTCAGCTCGCAAATGACATCGACAACTTCTGGGACACTTGCTATGATTCCATATGA
Fonar_Na5          ACGGTGGAGACGTTGTCGCTCGCTACAATTCACTTGGCCAACGCTTCAACGATCAACTGACATCGACATCCTCTGGAACATTTGCTATGATTCCATATCA
Focuc_001          ACGGTGGGAACATTGTCGCTCGCTATAATTCAGTTGGCCAACGGGTCAGCTCGGAAATGACAGCGACATCTTCTGGCACATTCGCTATGATTCCATATCG
Focuc_030          ACGGTGGGAACATTGTCGCTCGCTATAATTCAGTTGGCCAACGGGTCAGCTCGGAAATGACAGCGACATCTTCTGGCACATTCGCTATGATTCCATATCG
Focuc_035          ACGGTGGGAACATTGTCGCTCGCTATAATTCAGTTGGCCAACGGGTCAGCTCGGAAATGACAGCGACATCTTCTGGCACATTCGCTATGATTCCATATCG
Focuc_011          ACGGTGGGAACATTGTCGCTCGCTATAATTCAGTTGGCCAACGGGTCAGCTCGGAAATGACAGCGACATCTTCTGGCACATTCGCTATGATTCCATATCG
Focuc_013          ACGGTGGGAACATTGTCGCTCGCTATAATTCAGTTGGCCAACGGGTCAGCTCGGAAATGACAGCGACATCTTCTGGCACATTCGCTATGATTCCATATCG
Focuc_015          ACGGTGGGAACATTGTCGCTCGCTATAATTCAGTTGGCCAACGGGTCAGCTCGGAAATGACAGCGACATCTTCTGGCACATTCGCTATGATTCCATATCG
Focuc_018          ACGGTGGGAACATTGTCGCTCGCTATAATTCAGTTGGCCAACGGGTCAGCTCGGAAATGACAGCGACATCTTCTGGCACATTCGCTATGATTCCATATCG
Focuc_021          ACGGTGGGAACATTGTCGCTCGCTATAATTCAGTTGGCCAACGGGTCAGCTCGGAAATGACAGCGACATCTTCTGGCACATTCGCTATGATTCCATATCG
Focuc_037          ACGGTGGGAACATTGTCGCTCGCTATAATTCAGTTGGCCAACGGGTCAGCTCGGAAATGACAGCGACATCTTCTGGCACATTCGCTATGATTCCATATCG
Fomln_001          ACGGTGGGAACATTGTCGCTCGCTATAATTCAGTTGGCCAACGGGTCAGCTCGGAAATGACAGCGACATCTTCTGGCACATTCGCTATGATTCCATATCG
Fomln_006          ACGGTGGGAACATTGTCGCTCGCTATAATTCAGTTGGCCAACGGGTCAGCTCGGAAATGACAGCGACATCTTCTGGCACATTCGCTATGATTCCATATCG
Fomln_010          ACGGTGGGAACATTGTCGCTCGCTATAATTCAGTTGGCCAACGGGTCAGCTCGGAAATGACAGCGACATCTTCTGGCACATTCGCTATGATTCCATATCG
Fomln_011          ACGGTGGGAACATTGTCGCTCGCTATAATTCAGTTGGCCAACGGGTCAGCTCGGAAATGACAGCGACATCTTCTGGCACATTCGCTATGATTCCATATCG
Fomln_004          ACGGTGGGAACATTGTCGCTCGCTATAATTCAGTTGGCCAACGGGTCAGCTCGGAAATGACAGCGACATCTTCTGGCACATTCGCTATGATTCCATATCG
Fomln_005          ACGGTGGGAACATTGTCGCTCGCTATAATTCAGTTGGCCAACGGGTCAGCTCGGAAATGACAGCGACATCTTCTGGCACATTCGCTATGATTCCATATCG
Fomln_013          ACGGTGGGAACATTGTCGCTCGCTATAATTCAGTTGGCCAACGGGTCAGCTCGGAAATGACAGCGACATCTTCTGGCACATTCGCTATGATTCCATATCG
Fomln_016          ACGGTGGGAACATTGTCGCTCGCTATAATTCAGTTGGCCAACGGGTCAGCTCGGAAATGACAGCGACATCTTCTGGCACATTCGCTATGATTCCATATCG
Fophy_KOD886_1     ACGGTGGGAACATTGTCGCTCTCTATAATTCAAGAGGCCAACGGTTCAACTCGCAACTGACTTCGACAACTTATGGGACATTTGCTATGATTCCATATGA
Fophy_KOD887_1     ACGGTGGGAACATTGTCGCTCTCTATAATTCAAGAGGCCAACGGTTCAACTCGCAACTGACTTCGACAACTTATGGGACATTTGCTATGATTCCATATGA
Fophy_KOD888_1     ACGGTGGGAACATTGTCGCTCTCTATAATTCAAGAGGCCAACGGTTCAACTCGCAACTGACTTCGACAACTTATGGGACATTTGCTATGATTCCATATGA
Fonic_001          ACGGTGGGAACATTGTCGCTCTCTATAATTCAAGAGGACAACGGTTCAACTCGCAACTGACGTCGACAACTTATGGGACATTTGCTATGATTCCATATGA
Fonic_003          ACGGTGGGAACATTGTCGCTCTCTATAATTCAAGAGGACAACGGTTCAACTCGCAACTGACGTCGACAACTTATGGGACATTTGCTATGATTCCATATGA
Fonic_010          ACGGTGGGAACATTGTCGCTCTCTATAATTCAAGAGGACAACGGTTCAACTCGCAACTGACGTCGACAACTTATGGGACATTTGCTATGATTCCATATGA
Fonic_012          ACGGTGGGAACATTGTCGCTCTCTATAATTCAAGAGGACAACGGTTCAACTCGCAACTGACGTCGACAACTTATGGGACATTTGCTATGATTCCATATGA
Fophy_KOD886_0     ACGGTGGGAACATTGTCGCTCTCTATAATTCAAGAGGCCAACGGTTCAACTCGCAACTGACGTCGACAACTTATGGGACATTTGCTATGATTCCATATGA
Fophy_KOD887_0     ACGGTGGGAACATTGTCGCTCTCTATAATTCAAGAGGCCAACGGTTCAACTCGCAACTGACGTCGACAACTTATGGGACATTTGCTATGATTCCATATGA
Fophy_KOD888_0     ACGGTGGGAACATTGTCGCTCTCTATAATTCAAGAGGCCAACGGTTCAACTCGCAACTGACGTCGACAACTTATGGGACATTTGCTATGATTCCATATGA
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Marker #21

fp7326 rev< Focuc

fp7332 rev< Foniv

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                601
Foniv_002       GCCCGGTATGACCATTACTATTTATTGGCGTTTAGATTA---GTTGTAGTGCTCCTCCCGTTCACTGCAAAGAGCTTGCCCAGGACCTGGAAGTTGGCGA
Foniv_005       GCCCGGTATGACCATTACTATTTATTGGCGTTTAGATTA---GTTGTAGTGCTCCTCCCGTTCACTGCAAAGAGCTTGCCCAGGACCTGGAAGTTGGCGA
Foniv_010       GCCCGGTATGACCATTACTATTTATTGGCGTTTAGATTA---GTTGTAGTGCTCCTCCCGTTCACTGCAAAGAGCTTGCCCAGGACCTGGAAGTTGGCGA
Foniv_015       GCCCGGTATGACCATTACTATTTATTGGCGTTTAGATTA---GTTGTAGTGCTCCTCCCGTTCACTGCAAAGAGCTTGCCCAGGACCTGGAAGTTGGCGA
Foniv_013       GCCCGGTATGACCATTACTATTTATTGGCGTTTAGATTA---GTTGTAGTGCTCCTCCCGTTCACTGCAAAGAGCTTGCCCAGGACCTGGAAGTTGGCGA
Foniv_019       GCCCGGTATGACCATTACTATTTATTGGCGTTTAGATTA---GTTGTAGTGCTCCTCCCGTTCACTGCAAAGAGCTTGCCCAGGACCTGGAAGTTGGCGA
Foniv_020       GCCCGGTATGACCATTACTATTTATTGGCGTTTAGATTA---GTTGTAGTGCTCCTCCCGTTCACTGCAAAGAGCTTGCCCAGGACCTGGAAGTTGGCGA
Foniv_021       GCCCGGTATGACCATTACTATTTATTGGCGTTTAGATTA---GTTGTAGTGCTCCTCCCGTTCACTGCAAAGAGCTTGCCCAGGACCTGGAAGTTGGCGA
Foniv_037       GCCCGGTATGACCATTACTATTTATTGGCGTTTAGATTA---GTTGTAGTGCTCCTCCCGTTCACTGCAAAGAGCTTGCCCAGGACCTGGAAGTTGGCGA
Fonar_Na5       GGCCGGTCTAACCATCACTATTTATTGGCGTATACAAGAAGAGCTGTAACGGTCCTCCCGTTCACTCTAAAGAGCCTGCCTAAGACCTGAAAGTTGGCGA
Focuc_001       GGCCGGTATCTTCCATCACTATCTATTGGCGTCTAGAGCAGGAGTTTTAATGCTCCTCCCGTTTACTCCAAAGGTCCTGCCCAGGACCTGG-AGTTGTCGA
Focuc_030       GGCCGGTATCTTCCATCACTATCTATTGGCGTCTAGAGCAGGAGTTTTAATGCTCCTCCCGTTTACTCCAAAGGTCCTGCCCAGGACCTGG-AGTTGTCGA
Focuc_035       GGCCGGTATCTTCCATCACTATCTATTGGCGTCTAGAGCAGGAGTTTTAATGCTCCTCCCGTTTACTCCAAAGGTCCTGCCCAGGACCTGG-AGTTGTCGA
Focuc_011       GGCCGGTATCTTCCATCACTATCTATTGGCGTCTAGAGCAGGAGTTTTAATGCTCCTCCCGTTTACTCCAAAGGTCCTGCCCAGGACCTGG-AGTTGTCGA
Focuc_013       GGCCGGTATCTTCCATCACTATCTATTGGCGTCTAGAGCAGGAGTTTTAATGCTCCTCCCGTTTACTCCAAAGGTCCTGCCCAGGACCTGG-AGTTGTCGA
Focuc_015       GGCCGGTATCTTCCATCACTATCTATTGGCGTCTAGAGCAGGAGTTTTAATGCTCCTCCCGTTTACTCCAAAGGTCCTGCCCAGGACCTGG-AGTTGTCGA
Focuc_018       GGCCGGTATCTTCCATCACTATCTATTGGCGTCTAGAGCAGGAGTTTTAATGCTCCTCCCGTTTACTCCAAAGGTCCTGCCCAGGACCTGG-AGTTGTCGA
Focuc_021       GGCCGGTATCTTCCATCACTATCTATTGGCGTCTAGAGCAGGAGTTTTAATGCTCCTCCCGTTTACTCCAAAGGTCCTGCCCAGGACCTGG-AGTTGTCGA
Focuc_037       GGCCGGTATCTTCCATCACTATCTATTGGCGTCTAGAGCAGGAGTTTTAATGCTCCTCCCGTTTACTCCAAAGGTCCTGCCCAGGACCTGG-AGTTGTCGA
Fomln_001       GGCCGGTATCACCATCACTATCTATTGGCGTCTAGAGCAGGAGTTTTAATGCTCCTCCCGTTTACTCCAAAGGTCCTGCCCAGGACCTGG-AGTTGTCGA
Fomln_006       GGCCGGTATCACCATCACTATCTATTGGCGTCTAGAGCAGGAGTTTTAATGCTCCTCCCGTTTACTCCAAAGGTCCTGCCCAGGACCTGG-AGTTGTCGA
Fomln_010       GGCCGGTATCACCATCACTATCTATTGGCGTCTAGAGCAGGAGTTTTAATGCTCCTCCCGTTTACTCCAAAGGTCCTGCCCAGGACCTGG-AGTTGTCGA
Fomln_011       GGCCGGTATCACCATCACTATCTATTGGCGTCTAGAGCAGGAGTTTTAATGCTCCTCCCGTTTACTCCAAAGGTCCTGCCCAGGACCTGG-AGTTGTCGA
Fomln_004       GGCCGGTATCACCATCACTATCTATTGGCGTCTAGAGCAGGAGTTTTAATGCTCCTCCCGTTTACTCCAAAGGTCCTGCCCAGGACCTGG-AGTTGTCGA
Fomln_005       GGCCGGTATCACCATCACTATCTATTGGCGTCTAGAGCAGGAGTTTTAATGCTCCTCCCGTTTACTCCAAAGGTCCTGCCCAGGACCTGG-AGTTGTCGA
Fomln_013       GGCCGGTATCACCATCACTATCTATTGGCGTCTAGAGCAGGAGTTTTAATGCTCCTCCCGTTTACTCCAAAGGTCCTGCCCAGGACCTGG-AGTTGTCGA
Fomln_016       GGCCGGTATCACCATCACTATCTATTGGCGTCTAGAGCAGGAGTTTTAATGCTCCTCCCGTTTACTCCAAAGGTCCTGCCCAGGACCTGG-AGTTGTCGA
Fophy_KOD886_1  GGCCGGTATGACCACCACTATTTATTGGCGTATAGATCAAGGGCTGTAA---TCCTCCCGTTCGCTCCAAAGACCCTGCCCGGGATCTGAAAGTTGGCGA
Fophy_KOD887_1  GGCCGGTATGACCACCACTATTTATTGGCGTATAGATCAAGGGCTGTAA---TCCTCCCGTTCGCTCCAAAGACCCTGCCCGGGATCTGAAAGTTGGCGA
Fophy_KOD888_1  GGCCGGTATGACCACCACTATTTATTGGCGTATAGATCAAGGGCTGTAA---TCCTCCCGTTCGCTCCAAAGACCCTGCCCGGGATCTGAAAGTTGGCGA
Fonic_001       GGCCGGTATGACCATCACTATTTATTGGCGTATAGGTCAAGGGCTGTAA---TCCTCCCGTTCGCTCCAAAGACCCTGCCCGGGATCTGAAAGTTGGCGA
Fonic_003       GGCCGGTATGACCATCACTATTTATTGGCGTATAGGTCAAGGGCTGTAA---TCCTCCCGTTCGCTCCAAAGACCCTGCCCGGGATCTGAAAGTTGGCGA
Fonic_010       GGCCGGTATGACCATCACTATTTATTGGCGTATAGGTCAAGGGCTGTAA---TCCTCCCGTTCGCTCCAAAGACCCTGCCCGGGATCTGAAAGTTGGCGA
Fonic_012       GGCCGGTATGACCATCACTATTTATTGGCGTATAGGTCAAGGGCTGTAA---TCCTCCCGTTCGCTCCAAAGACCCTGCCCGGGATCTGAAAGTTGGCGA
Fophy_KOD886_0  GGCCGGTATGACCATCACTATTTATTGGCGTATAGATCAAGGGCTGTAA---TCCTCCCGTTCGCTCCAAAGACCCTGCCCGGGATCTGAAAGTTGGCGA
Fophy_KOD887_0  GGCCGGTATGACCATCACTATTTATTGGCGTATAGATCAAGGGCTGTAA---TCCTCCCGTTCGCTCCAAAGACCCTGCCCGGGATCTGAAAGTTGGCGA
Fophy_KOD888_0  GGCCGGTATGACCATCACTATTTATTGGCGTATAGATCAAGGGCTGTAA---TCCTCCCGTTCGCTCCAAAGACCCTGCCCGGGATCTGAAAGTTGGCGA

                701
Foniv_002       TGCGCCGAAGGGATATTTCGTTGCGAGATATCCCGGAATGGCATGGTGAGCTACTGGACTGAACAGGTT-GTTGATGTGTTCCA-GAAGGACGATGGGTA
Foniv_005       TGCGCCGAAGGGATATTTCGTTGCGAGATATCCCGGAATGGCATGGTGAGCTACTGGACTGAACAGGTT-GTTGATGTGTTCCA-GAAGGACGATGGGTA
Foniv_010       TGCGCCGAAGGGATATTTCGTTGCGAGATATCCCGGAATGGCATGGTGAGCTACTGGACTGAACAGGTT-GTTGATGTGTTCCA-GAAGGACGATGGGTA
Foniv_015       TGCGCCGAAGGGATATTTCGTTGCGAGATATCCCGGAATGGCATGGTGAGCTACTGGACTGAACAGGTT-GTTGATGTGTTCCA-GAAGGACGATGGGTA
Foniv_013       TGCGCCGAAGGGATATTTCGTTGCGAGATATCCCGGAATGGCATGGTGAGCTACTGGACTGAACAGGTT-GTTGATGTGTTCCA-GAAGGACGATGGGTA
Foniv_019       TGCGCCGAAGGGATATTTCGTTGCGAGATATCCCGGAATGGCATGGTGAGCTACTGGACTGAACAGGTT-GTTGATGTGTTCCA-GAAGGACGATGGGTA
Foniv_020       TGCGCCGAAGGGATATTTCGTTGCGAGATATCCCGGAATGGCATGGTGAGCTACTGGACTGAACAGGTT-GTTGATGTGTTCCA-GAAGGACGATGGGTA
Foniv_021       TGCGCCGAAGGGATATTTCGTTGCGAGATATCCCGGAATGGCATGGTGAGCTACTGGACTGAACAGGTT-GTTGATGTGTTCCA-GAAGGACGATGGGTA
Foniv_037       TGCGCCGAAGGGATATTTCGTTGCGAGATATCCCGGAATGGCATGGTGAGCTACTGGACTGAACAGGTT-GTTGATGTGTTCCA-GAAGGACGATGGGTA
Fonar_Na5       TGTGCTGAAGGGAGACTTCGTTGTGATAC---GTGGAATGGCATGGCGAGCTGTTGAACTTACCAGGTT-GTTGGTGTCTTTTACGAAGGAGAATGGATA
Focuc_001       TGCGTGGAAGGGAGAATTCATTGCGAGGTATGCTAGAATGGTATAGTGAGCTAGTGGAATCAACAGGTT-GTTAATGTGTCTTG-GAAGGGCGATGGGTA
Focuc_030       TGCGTGGAAGGGAGAATTCATTGCGAGGTATGCTAGAATGGTATAGTGAGCTAGTGGAATCAACAGGTT-GTTAATGTGTCTTG-GAAGGGCGATGGGTA
Focuc_035       TGCGTGGAAGGGAGAATTCATTGCGAGGTATGCTAGAATGGTATAGTGAGCTAGTGGAATCAACAGGTT-GTTAATGTGTCTTG-GAAGGGCGATGGGTA
Focuc_011       TGCGTGGAAGGGAGAATTCATTGCGAGGTATGCTAGAATGGTATAGTGAGCTAGTGGAATCAACAGGTT-GTTAATGTGTCTTG-GAAGGGCGATGGGTA
Focuc_013       TGCGTGGAAGGGAGAATTCATTGCGAGGTATGCTAGAATGGTATAGTGAGCTAGTGGAATCAACAGGTT-GTTAATGTGTCTTG-GAAGGGCGATGGGTA
Focuc_015       TGCGTGGAAGGGAGAATTCATTGCGAGGTATGCTAGAATGGTATAGTGAGCTAGTGGAATCAACAGGTT-GTTAATGTGTCTTG-GAAGGGCGATGGGTA
Focuc_018       TGCGTGGAAGGGAGAATTCATTGCGAGGTATGCTAGAATGGTATAGTGAGCTAGTGGAATCAACAGGTT-GTTAATGTGTCTTG-GAAGGGCGATGGGTA
Focuc_021       TGCGTGGAAGGGAGAATTCATTGCGAGGTATGCTAGAATGGTATAGTGAGCTAGTGGAATCAACAGGTT-GTTAATGTGTCTTG-GAAGGGCGATGGGTA
Focuc_037       TGCGTGGAAGGGAGAATTCATTGCGAGGTATGCTAGAATGGTATAGTGAGCTAGTGGAATCAACAGGTT-GTTAATGTGTCTTG-GAAGGGCGATGGGTA
Fomln_001       TGCGTGGAAGGGAGAATTCATTGCGAGGTATGCTAGAATGGTATAGTGAGCTAGTGGAATCAACAGGTT-GTTAATGTGTCTTG-GAAGGGCGATGGGTA
Fomln_006       TGCGTGGAAGGGAGAATTCATTGCGAGGTATGCTAGAATGGTATAGTGAGCTAGTGGAATCAACAGGTT-GTTAATGTGTCTTG-GAAGGGCGATGGGTA
Fomln_010       TGCGTGGAAGGGAGAATTCATTGCGAGGTATGCTAGAATGGTATAGTGAGCTAGTGGAATCAACAGGTT-GTTAATGTGTCTTG-GAAGGGCGATGGGTA
Fomln_011       TGCGTGGAAGGGAGAATTCATTGCGAGGTATGCTAGAATGGTATAGTGAGCTAGTGGAATCAACAGGTT-GTTAATGTGTCTTG-GAAGGGCGATGGGTA
Fomln_004       TGCGTGGAAGGGAGAATTCATTGCGAGGTATGCTAGAATGGTATAGTGAGCTAGTGGAATCAACAGGTT-GTTAATGTGTCTTG-GAAGGGCGATGGGTA
Fomln_005       TGCGTGGAAGGGAGAATTCATTGCGAGGTATGCTAGAATGGTATAGTGAGCTAGTGGAATCAACAGGTT-GTTAATGTGTCTTG-GAAGGGCGATGGGTA
Fomln_013       TGCGTGGAAGGGAGAATTCATTGCGAGGTATGCTAGAATGGTATAGTGAGCTAGTGGAATCAACAGGTT-GTTAATGTGTCTTG-GAAGGGCGATGGGTA
Fomln_016       TGCGTGGAAGGGAGAATTCATTGCGAGGTATGCTAGAATGGTATAGTGAGCTAGTGGAATCAACAGGTT-GTTAATGTGTCTTG-GAAGGGCGATGGGTA
Fophy_KOD886_1  TGCGCCGAAGGGAGACTTCATTGTGATAT---CTGGAATGGCATGGTGAGCTACTGGACTCAACAAGTTGGTTGATGTCTTCTAGGAAGGAGGATGGGTA
Fophy_KOD887_1  TGCGCCGAAGGGAGACTTCATTGTGATAT---CTGGAATGGCATGGTGAGCTACTGGACTCAACAAGTTGGTTGATGTCTTCTAGGAAGGAGGATGGGTA
Fophy_KOD888_1  TGCGCCGAAGGGAGACTTCATTGTGATAT---CTGGAATGGCATGGTGAGCTACTGGACTCAACAAGTTGGTTGATGTCTTCTAGGAAGGAGGATGGGTA
Fonic_001       TGCGCCGAAGGGAGACTTCGTTGTGATAT---CTGGAATGGCATGGTGAGCTACTGGACTCAAGAAGTCGGTTGATGTCTTCTAGGAAAGAGGATGGGTA
Fonic_003       TGCGCCGAAGGGAGACTTCGTTGTGATAT---CTGGAATGGCATGGTGAGCTACTGGACTCAAGAAGTCGGTTGATGTCTTCTAGGAAAGAGGATGGGTA
Fonic_010       TGCGCCGAAGGGAGACTTCGTTGTGATAT---CTGGAATGGCATGGTGAGCTACTGGACTCAAGAAGTCGGTTGATGTCTTCTAGGAAAGAGGATGGGTA
Fonic_012       TGCGCCGAAGGGAGACTTCGTTGTGATAT---CTGGAATGGCATGGTGAGCTACTGGACTCAAGAAGTCGGTTGATGTCTTCTAGGAAAGAGGATGGGTA
Fophy_KOD886_0  TGCGCCGAAGGGAGACTTCGTTGTGATAT---CTGGAATGGCATGGTGAGCTACTGGACTCAACAAGTTGGTTGATGTCTACTAGGAAGGAGGATGGGTA
Fophy_KOD887_0  TGCGCCGAAGGGAGACTTCGTTGTGATAT---CTGGAATGGCATGGTGAGCTACTGGACTCAACAAGTTGGTTGATGTCTACTAGGAAGGAGGATGGGTA
Fophy_KOD888_0  TGCGCCGAAGGGAGACTTCGTTGTGATAT---CTGGAATGGCATGGTGAGCTACTGGACTCAACAAGTTGGTTGATGTCTACTAGGAAGGAGGATGGGTA
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Marker #21

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                801
Foniv_002       GTAA-
Foniv_005       GTAA-
Foniv_010       GTAA-
Foniv_015       GTAA-
Foniv_013       GTA--
Foniv_019       GTA--
Foniv_020       GTA--
Foniv_021       GTA--
Foniv_037       GTA--
Fonar_Na5       GTA--
Focuc_001       GT---
Focuc_030       GT---
Focuc_035       GT---
Focuc_011       G----
Focuc_013       G----
Focuc_015       G----
Focuc_018       G----
Focuc_021       G----
Focuc_037       G----
Fomln_001       GT---
Fomln_006       GT---
Fomln_010       GT---
Fomln_011       GT---
Fomln_004       G----
Fomln_005       G----
Fomln_013       G----
Fomln_016       G----
Fophy_KOD886_1  GTAA-
Fophy_KOD887_1  GTAA-
Fophy_KOD888_1  GTAAA
Fonic_001       GTAA-
Fonic_003       GTAAA
Fonic_010       GTAAA
Fonic_012       GTAAA
Fophy_KOD886_0  GTAAA
Fophy_KOD887_0  GTAAA
Fophy_KOD888_0  GTAA-
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Marker #21

Alignment: /Users/Peter/Dropbox/_UvA/Shared_Martijn_Peter/03.f.sp.markers/figures/markers_aligned_150bp/nicename/008..1_SIX1.muscle.fast
Seaview [blocks=100 fontsize=7 A4] on Fri Mar 10 14:22:06 2017

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Fonic_001        -ATCATGACTACTCCCTGGATCCATCGCCTGTTTGCTTACTCGGCAGTTGAGCTCGGCAGCTGAGCTCGGCAGCTGAATACATATGGTGTTCGA------
Fonic_003        TATCATGACTACTCCCTGGATCCATCGCCTGTTTGCTTACTCGGCAGTTGAGCTCGGCAGCTGAGCTCGGCAGCTGAATACATATGGTGTTCGA------
Fonic_010        TATCATGACTACTCCCTGGATCCATCGCCTGTTTGCTTACTCGGCAGTTGAGCTCGGCAGCTGAGCTCGGCAGCTGAATACATATGGTGTTCGA------
Fonic_012        TATCATGACTACTCCCTGGATCCATCGCCTGTTTGCTTACTCGGCAGTTGAGCTCGGCAGCTGAGCTCGGCAGCTGAATACATATGGTGTTCGA------
Focub_B2_2       ---------------------------------------ACTAAG--GAACTGCCTGCCTGATATTAACATCCATCACTACCAT----C------------
Focub_II5_2      ---------------------------------------CTAAG--GAACTGCCTGCCTGATATTAACATCCATCACTACCAT----C------------
Fomel_001_0      ------------------------------------------AAGCAGATTTGCCCTTACG-CGTCCTCATACTTCGAAACCAC----CCCTCCC------
Fomel_001_1      ------------------------------------------AGCAGATTTGCCCTTACG-CGTCCTCATACTTCGAAACCAC----CCCTCCC------
Fophy_KOD886     ------------------------------------------AAGCAGATTTGCCCTTACG-CGTCCTCATACTTCGAAACCAC----CCCTCCC------
Fophy_KOD887     ------------------------------------------AAGCAGATTTGCCCTTACG-CGTCCTCATACTTCGAAACCAC----CCCTCCC------
Fophy_KOD888     ------------------------------------------AAGCAGATTTGCCCTTACG-CGTCCTCATACTTCGAAACCAC----CCCTCCC------
Folyc_4287       ------------------------------------------NNNNNNNNNNNNNNNNNN-NNNNNNNNNNNNNNNNNNNNT----CCCTCCC------
Folyc_002        ------------------------------------------AGCAGATTTGCCCTTCCG-CATCCTCATACTTCGAAACCAT----CCCTCCC------
Folyc_026        ------------------------------------------AGCAGATTTGCCCTTCCG-CATCCTCATACTTCGAAACCAT----CCCTCCC------
Folyc_038        ------------------------------------------AGCAGATTTGCCCTTCCG-CATCCTCATACTTCGAAACCAT----CCCTCCC------
Folyc_004        ------------------------------------------AAGCAGATTTGCCCTTCCG-CATCCTCATACTTCGAAACCAT----CCCTCCC------
Folyc_029        ------------------------------------------AAGCAGATTTGCCCTTCCG-CATCCTCATACTTCGAAACCAT----CCCTCCC------
Folyc_074        ------------------------------------------AAGCAGATTTGCCCTTCCG-CATCCTCATACTTCGAAACCAT----CCCTCCC------
Folyc_MN25       ------------------------------------------AAGCAGATTTGCCCTTCCG-CATCCTCATACTTCGAAACCAT----CCCTCCC------
Folyc_007        ------------------------------------------AGCAGATTTGCCCTTCCG-CATCCTCATACTTCGAAACCAT----CCCTCCC------
Folyc_014        ------------------------------------------AGCAGATTTGCCCTTCCG-CATCCTCATACTTCGAAACCAT----CCCTCCC------
Folyc_016        ------------------------------------------AGCAGATTTGCCCTTCCG-CATCCTCATACTTCGAAACCAT----CCCTCCC------
Folyc_018        ------------------------------------------AGCAGATTTGCCCTTCCG-CATCCTCATACTTCGAAACCAT----CCCTCCC------
Folyc_069        ------------------------------------------AGCAGATTTGCCCTTCCG-CATCCTCATACTTCGAAACCAT----CCCTCCC------
Folyc_072        ------------------------------------------AGCAGATTTGCCCTTCCG-CATCCTCATACTTCGAAACCAT----CCCTCCC------
Folyc_073        ------------------------------------------AAGCAGATTTGCCCTTCCG-CATCCTCATACTTCGAAACCAT----CCCTCCC------
Folyc_075        ------------------------------------------AAGCAGATTTGCCCTTCCG-CATCCTCATACTTCGAAACCAT----CCCTCCC------
Focon_5176       ------------------------------GACAAGAACACAAGCAGATTTGCCCTTGCG-CGTCC-----------AACCAT----CCCTCCC------
Focon_PHW808     ------------------------------GACAAGAACACAAGCAGATTTGCCCTTGCG-CGTCC-----------AACCAT----CCCTCCC------
Fopis_HDV247_1   ------------------------------------------AGCAGATTTGCCCTTACG-CGTCCTCATACTTCGAGACCAT----CCCTTCC------
Focub_B2_1       ------------------------------------------AAGCAGATTTGCCCTTACG-CGTCCTCATACTTCGAAACCAT----CCCTCCC------
Focub_II5_1      ------------------------------------------AAGCAGATTTGCCCTTACG-CGTCCTCATACTTCGAAACCAT----CCCTCCC------
Focub_N2         ------------------------------------------AGCAGATTTGCCCTTACG-CGTCCTCATACTTCGAAACCAT----CCCTCCC------
Focub_B2_0       ------------------------------------------AGCAGATTTGCCCTTACG-CGTCCTCATACTTCGAAACCAT----CCCTCCC------
Focub_II5_0      ------------------------------------------AAGCAGATTTGCCCTTACG-CGTCCTCATACTTCGAAACCAT----CCCTCCC------
Fomln_010_0      ----------------------------------------------GCTTGCCCGGTTG-TGACATC---CATCACTACCAT----CACGGCCTCAATT
Fomln_009_0      ---------------------------------------------GCTTGCCCGGTTG-TGACATC---CATCACTACCAT----CACGGCCTCAATT
Fomln_011_0      ---------------------------------------------TGCTTGCCCGGTTG-TGACATC---CATCACTACCAT----CACGGCCTCAATT
Fopis_HDV247_0   ------------------------------------------AAGCAGATTTGCCCTTACG-CGTCCTCATAATTCGAAACCAT----CCCTCCC------
Fomln_001        ------------------------------------------AGCAGATTTGCCCTTACG-CGTCCTCATGCTTCGAAACCAT----CCCTCCC------
Fomln_004        ------------------------------------------AGCAGATTTGCCCTTACG-CGTCCTCATGCTTCGAAACCAT----CCCTCCC------
Fomln_005        ------------------------------------------AGCAGATTTGCCCTTACG-CGTCCTCATGCTTCGAAACCAT----CCCTCCC------
Fomln_009_1      ------------------------------------------AGCAGATTTGCCCTTACG-CGTCCTCATGCTTCGAAACCAT----CCCTCCC------
Fomln_011_1      ------------------------------------------AGCAGATTTGCCCTTACG-CGTCCTCATGCTTCGAAACCAT----CCCTCCC------
Fomln_012        ------------------------------------------AGCAGATTTGCCCTTACG-CGTCCTCATGCTTCGAAACCAT----CCCTCCC------
Fomln_006        -----------------------------------------GCAGATTTGCCCTTACG-CGTCCTCATGCTTCGAAACCAT----CCCTCCC------
Fomln_010_1      -----------------------------------------GCAGATTTGCCCTTACG-CGTCCTCATGCTTCGAAACCAT----CCCTCCC------
Fomln_013        -----------------------------------------GCAGATTTGCCCTTACG-CGTCCTCATGCTTCGAAACCAT----CCCTCCC------
Fomln_016        -----------------------------------------GCAGATTTGCCCTTACG-CGTCCTCATGCTTCGAAACCAT----CCCTCCC------
Folag_001        ------------------------------------------AGCAGATTTGCCCTTACG-CGTCCTCATGCTTCGAAACCAT----CCCTCCC------
Folag_002        ------------------------------------------AGCAGATTTGCCCTTACG-CGTCCTCATGCTTCGAAACCAT----CCCTCCC------
Fomom_001        ------------------------------------------AGCAGATTTGCCCTTACG-CGTCCTCATGCTTCGAAACCAT----CCCTCCC------
Folag_004        -----------------------------------------GCAGATTTGCCCTTACG-CGTCCTCATGCTTCGAAACCAT----CCCTCCC------
Folag_005        -----------------------------------------GCAGATTTGCCCTTACG-CGTCCTCATGCTTCGAAACCAT----CCCTCCC------
Fomom_004        -----------------------------------------GCAGATTTGCCCTTACG-CGTCCTCATGCTTCGAAACCAT----CCCTCCC------
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Marker #1

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                101
Fonic_001       CTAGATAATAGAGTTCCATTTGTGAAAATAATGACACGAAAATACTATGGAACTGCCCG-CCCGATTTCGACATCCATCACTAC--CATCGACATAC-CT
Fonic_003       CTAGATAATAGAGTTCCATTTGTGAAAATAATGACACGAAAATACTATGGAACTGCCCG-CCCGATTTCGACATCCATCACTAC--CATCGACATAC-CT
Fonic_010       CTAGATAATAGAGTTCCATTTGTGAAAATAATGACACGAAAATACTATGGAACTGCCCG-CCCGATTTCGACATCCATCACTAC--CATCGACATAC-CT
Fonic_012       CTAGATAATAGAGTTCCATTTGTGAAAATAATGACACGAAAATACTATGGAACTGCCCG-CCCGATTTCGACATCCATCACTAC--CATCGACATAC-CT
Focub_B2_2      GCAGCCTCAACTCCTGC-----------TAGC----TTTCAAGACAAGAAAATAACCGGATTTGCTCTTACG--------------CATCCTTATAC-TT
Focub_II5_2     GCAGCCTCAACTCCTGC-----------TAGC----TTTCAAGACAAGAAAATAACCGGATTTGCTCTTACG--------------CATCCTTATAC-TT
Fomel_001_0     CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-GC
Fomel_001_1     CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-GC
Fophy_KOD886    CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-CC
Fophy_KOD887    CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-CC
Fophy_KOD888    CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-CC
Folyc_4287      CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-CC
Folyc_002       CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-CC
Folyc_026       CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-CC
Folyc_038       CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-CC
Folyc_004       CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-CC
Folyc_029       CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-CC
Folyc_074       CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-CC
Folyc_MN25      CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-CC
Folyc_007       CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-CC
Folyc_014       CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-CC
Folyc_016       CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-CC
Folyc_018       CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-CC
Folyc_069       CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-CC
Folyc_072       CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-CC
Folyc_073       CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-CC
Folyc_075       CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-CC
Focon_5176      CCAGCTACCATTATTCA-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-CC
Focon_PHW808    CCAGCTACCATTATTCA-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-CC
Fopis_HDV247_1  CCAGCTACCATTATTCC-----------TAAT----CCCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-CC
Focub_B2_1      CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-CC
Focub_II5_1     CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-CC
Focub_N2        CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-CC
Focub_B2_0      CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-CC
Focub_II5_0     CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-CC
Fomln_010_0     CCAACTACCATTATTCC-----------TAGT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTTCTACCTCGACACAT-CC
Fomln_009_0     CCAACTACCATTATTCC-----------TAGT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTTCTACCTCGACACAT-CC
Fomln_011_0     CCAACTACCATTATTCC-----------TAGT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTTCTACCTCGACACAT-CC
Fopis_HDV247_0  ACAGCCACCATTATCCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACAT-CC
Fomln_001       CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACATCCC
Fomln_004       CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACATCCC
Fomln_005       CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACATCCC
Fomln_009_1     CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACATCCC
Fomln_011_1     CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACATCCC
Fomln_012       CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACATCCC
Fomln_006       CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACATCCC
Fomln_010_1     CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACATCCC
Fomln_013       CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACATCCC
Fomln_016       CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAGTCTAC--CGTCGACACATCCC
Folag_001       CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAATCTAC--CGTCGACACATCCC
Folag_002       CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAATCTAC--CGTCGACACATCCC
Fomom_001       CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAATCTAC--CGTCGACACATCCC
Folag_004       CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAATCTAC--CGTCGACACATCCC
Folag_005       CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAATCTAC--CGTCGACACATCCC
Fomom_004       CCAGCTACCATTATTCC-----------TAAT----CTCCATTAC---------------TTTG-TCTCACGAGCCAAATCTAC--CGTCGACACATCCC

                201
Fonic_001       TTTTATTAGACCTGCATATTTCTAGCTTTCGAAATAAATGGCGCCCTATGG-----------------------------------------------
Fonic_003       TTTTATTAGACCTGCATATTTCTAGCTTTCGAAATAAATGGCGCCCTATGG-----------------------------------------------
Fonic_010       TTTTATTAGACCTGCATATTTCTAGCTTTCGAAATAAATGGCGCCCTATGG-----------------------------------------------
Fonic_012       TTTTATTAGACCTGCATATTTCTAGCTTTCGAAATAAATGGCGCCCTATGG-----------------------------------------------
Focub_B2_2      CAAAACCATCCCTCCAGGTTTCAAGCCATTAACA-AAATGGCGCCTTATGGCATAGTACTCCTCGGCATCCTCTCAATCCTTGGGTCGGCGGCTTATGCT
Focub_II5_2     CAAAACCATCCCTCCAGGTTTCAAGCCATTAACA-AAATGGCGCCTTATGGCATAGTACTCCTCGGCATCCTCTCAATCCTTGGGTCGGCGGCTTATGCT
Fomel_001_0     CCTTATTATCCCTCCGGATTTTGAGCTTTCGACA-AAATGGCGCCCTATAGCATGGTACTTCTTGGCGCCCTCTCGATCCTTGGGTTTGGGGCTTATGCT
Fomel_001_1     CCTTATTATCCCTCCGGATTTTGAGCTTTCGACA-AAATGGCGCCCTATAGCATGGTACTCCTTGGCGCCCTCTCGATCCTTGGGTTTGGGGCTTATGCT
Fophy_KOD886    CCTTATTATCCCTCCGGATTTTGAGCTTTCGACA-AAATGGCGCCCTATAGCATGGTACTTCTTGGCGCTCTCTCGATCCTTGGGTTTGGGGCTTATGCT
Fophy_KOD887    CCTTATTATCCCTCCGGATTTTGAGCTTTCGACA-AAATGGCGCCCTATAGCATGGTACTTCTTGGCGCTCTCTCGATCCTTGGGTTTGGGGCTTATGCT
Fophy_KOD888    CCTTATTATCCCTCCGGATTTTGAGCTTTCGACA-AAATGGCGCCCTATAGCATGGTACTTCTTGGCGCTCTCTCGATCCTTGGGTTTGGGGCTTATGCT
Folyc_4287      CCTTAGTATCCCTCCGGATTTTGAGCTTTCGACA-AAATGGCGCCCTATAGCATGGTACTCCTTGGCGCCCTCTCAATCCTTGGGTTTGGGGCTTATGCT
Folyc_002       CCTTAGTATCCCTCCGGATTTTGAGCTTTCGACA-AAATGGCGCCCTATAGCATGGTACTCCTTGGCGCCCTCTCAATCCTTGGGTTTGGGGCTTATGCT
Folyc_026       CCTTAGTATCCCTCCGGATTTTGAGCTTTCGACA-AAATGGCGCCCTATAGCATGGTACTCCTTGGCGCCCTCTCAATCCTTGGGTTTGGGGCTTATGCT
Folyc_038       CCTTAGTATCCCTCCGGATTTTGAGCTTTCGACA-AAATGGCGCCCTATAGCATGGTACTCCTTGGCGCCCTCTCAATCCTTGGGTTTGGGGCTTATGCT
Folyc_004       CCTTAGTATCCCTCCGGATTTTGAGCTTTCGACA-AAATGGCGCCCTATAGCATGGTACTCCTTGGCGCCCTCTCAATCCTTGGGTTTGGGGCTTATGCT
Folyc_029       CCTTAGTATCCCTCCGGATTTTGAGCTTTCGACA-AAATGGCGCCCTATAGCATGGTACTCCTTGGCGCCCTCTCAATCCTTGGGTTTGGGGCTTATGCT
Folyc_074       CCTTAGTATCCCTCCGGATTTTGAGCTTTCGACA-AAATGGCGCCCTATAGCATGGTACTCCTTGGCGCCCTCTCAATCCTTGGGTTTGGGGCTTATGCT
Folyc_MN25      CCTTAGTATCCCTCCGGATTTTGAGCTTTCGACA-AAATGGCGCCCTATAGCATGGTACTCCTTGGCGCCCTCTCAATCCTTGGGTTTGGGGCTTATGCT
Folyc_007       CCTTAGTATCCCTCCGGATTTTGAGCTTTCGACA-AAATGGCGCCCTATAGCATGGTACTCCTTGGCGCCCTCTCAATCCTTGGGTTTGGGGCTTATGCT
Folyc_014       CCTTAGTATCCCTCCGGATTTTGAGCTTTCGACA-AAATGGCGCCCTATAGCATGGTACTCCTTGGCGCCCTCTCAATCCTTGGGTTTGGGGCTTATGCT
Folyc_016       CCTTAGTATCCCTCCGGATTTTGAGCTTTCGACA-AAATGGCGCCCTATAGCATGGTACTCCTTGGCGCCCTCTCAATCCTTGGGTTTGGGGCTTATGCT
Folyc_018       CCTTAGTATCCCTCCGGATTTTGAGCTTTCGACA-AAATGGCGCCCTATAGCATGGTACTCCTTGGCGCCCTCTCAATCCTTGGGTTTGGGGCTTATGCT
Folyc_069       CCTTAGTATCCCTCCGGATTTTGAGCTTTCGACA-AAATGGCGCCCTATAGCATGGTACTCCTTGGCGCCCTCTCAATCCTTGGGTTTGGGGCTTATGCT
Folyc_072       CCTTAGTATCCCTCCGGATTTTGAGCTTTCGACA-AAATGGCGCCCTATAGCATGGTACTCCTTGGCGCCCTCTCAATCCTTGGGTTTGGGGCTTATGCT
Folyc_073       CCTTAGTATCCCTCCGGATTTTGAGCTTTCGACA-AAATGGCGCCCTATAGCATGGTACTCCTTGGCGCCCTCTCAATCCTTGGGTTTGGGGCTTATGCT
Folyc_075       CCTTAGTATCCCTCCGGATTTTGAGCTTTCGACA-AAATGGCGCCCTATAGCATGGTACTCCTTGGCGCCCTCTCAATCCTTGGGTTTGGGGCTTATGCT
Focon_5176      ACATATTATCCCTCCGGATTTTGAGCTTTCGACA-AAATGGCGCCCTATAGCATGGTACTCCTTGGCGCTCTCTCAATCCTTGGGTTTGGGGCTTATGCT
Focon_PHW808    ACATATTATCCCTCCGGATTTTGAGCTTTCGACA-AAATGGCGCCCTATAGCATGGTACTCCTTGGCGCTCTCTCAATCCTTGGGTTTGGGGCTTATGCT
Fopis_HDV247_1  TCTCATTATCCCTCCAGATTTCGAGCTTTCGACA-AAATGGCGCCCTATAGCATGGTACTTCTCGGCACCCTCTCAATCTTTGGGTTTGCGGCTTATGCT
Focub_B2_1      CCTTATTATCCCTCCGGATTTTGAGCTTTCGACA-AGATGGCGCCCTATAGCATGGTACTCCTTGGCGCCCTCTCAATCCTTGGGTTTGGGGCTTATGCT
Focub_II5_1     CCTTATTATCCCTCCGGATTTTGAGCTTTCGACA-AGATGGCGCCCTATAGCATGGTACTCCTTGGCGCCCTCTCAATCCTTGGGTTTGGGGCTTATGCT
Focub_N2        CCTTATTATCCCTCCGGATTTTGAGCTTTCGACA-AGATGGCGCCCTATAGCATGGTACTCCTTGGCGCCCTCTCAATCCTTGGGTTTGGGGCTTATGCT
Focub_B2_0      CCTTATTATCCCTCCGGATTTTGAGCTTTCGACA-AGATGGCGCCCTATAGCATGGTACTCCTTGGCGCCCTCTCAATCCTTGGGTTTGGGGCTTATGCT
Focub_II5_0     CCTTATTATCCCTCCGGATTTTGAGCTTTCGACA-AGATGGCGCCCTATAGCATGGTACTCCTTGGCGCCCTCTCAATCCTTGGGTTTGGGGCTTATGCT
Fomln_010_0     CCTTATTATCCCTCCGGATTTCGAGCTTCCGACA-AAATGGCGCCCTATAGCATGGTATTCCTCGGCGCCCTCTCAATCCTTGGGTCTGCGGCTTATGCT
Fomln_009_0     CCTTATTATCCCTCCGGATTTCGAGCTTCCGACA-AAATGGCGCCCTATAGCATGGTATTCCTCGGCGCCCTCTCAATCCTTGGGTCTGCGGCTTATGCT
Fomln_011_0     CCTTATTATCCCTCCGGATTTCGAGCTTCCGACA-AAATGGCGCCCTATAGCATGGTATTCCTCGGCGCCCTCTCAATCCTTGGGTCTGCGGCTTATGCT
Fopis_HDV247_0  CCTTATTATCCCTCCAGATTCCGAGCTTTCGACA-AAATGGCGCCCTATAGCATGGTACTCCTCGGCACCCTCTCAATCCTTGGGTCTGCGGCCTATGCT
Fomln_001       CCTTATTATCCTTCCAGATTTCGAGCTTTCGACA-AAATGGTGCCCTATGGCATGGTACTCCTCGGCATCCTCTCAGTCCTTGGGTCTGCGGCTTATGCT
Fomln_004       CCTTATTATCCTTCCAGATTTCGAGCTTTCGACA-AAATGGTGCCCTATGGCATGGTACTCCTCGGCATCCTCTCAGTCCTTGGGTCTGCGGCTTATGCT
Fomln_005       CCTTATTATCCTTCCAGATTTCGAGCTTTCGACA-AAATGGTGCCCTATGGCATGGTACTCCTCGGCATCCTCTCAGTCCTTGGGTCTGCGGCTTATGCT
Fomln_009_1     CCTTATTATCCTTCCAGATTTCGAGCTTTCGACA-AAATGGTGCCCTATGGCATGGTACTCCTCGGCATCCTCTCAGTCCTTGGGTCTGCGGCTTATGCT
Fomln_011_1     CCTTATTATCCTTCCAGATTTCGAGCTTTCGACA-AAATGGTGCCCTATGGCATGGTACTCCTCGGCATCCTCTCAGTCCTTGGGTCTGCGGCTTATGCT
Fomln_012       CCTTATTATCCTTCCAGATTTCGAGCTTTCGACA-AAATGGTGCCCTATGGCATGGTACTCCTCGGCATCCTCTCAGTCCTTGGGTCTGCGGCTTATGCT
Fomln_006       CCTTATTATCCTTCCAGATTTCGAGCTTTCGACA-AAATGGTGCCCTATGGCATGGTACTCCTCGGCATCCTCTCAGTCCTTGGGTCTGCGGCTTATGCT
Fomln_010_1     CCTTATTATCCTTCCAGATTTCGAGCTTTCGACA-AAATGGTGCCCTATGGCATGGTACTCCTCGGCATCCTCTCAGTCCTTGGGTCTGCGGCTTATGCT
Fomln_013       CCTTATTATCCTTCCAGATTTCGAGCTTTCGACA-AAATGGTGCCCTATGGCATGGTACTCCTCGGCATCCTCTCAGTCCTTGGGTCTGCGGCTTATGCT
Fomln_016       CCTTATTATCCTTCCAGATTTCGAGCTTTCGACA-AAATGGTGCCCTATGGCATGGTACTCCTCGGCATCCTCTCAGTCCTTGGGTCTGCGGCTTATGCT
Folag_001       CCTTATTATCCTTCCAGATTTCGAGCTTTCGGCA-AAATGGCGCCCTATGGCATGGTACTCCTCGGTACCCTCTCAGTCCTTGGGATTGCGGCTTATGCT
Folag_002       CCTTATTATCCTTCCAGATTTCGAGCTTTCGGCA-AAATGGCGCCCTATGGCATGGTACTCCTCGGTACCCTCTCAGTCCTTGGGATTGCGGCTTATGCT
Fomom_001       CCTTATTATCCTTCCAGATTTCGAGCTTTCGGCA-AAATGGCGCCCTATGGCATGGTACTCCTCGGTACCCTCTCAGTCCTTGGGATTGCGGCTTATGCT
Folag_004       CCTTATTATCCTTCCAGATTTCGAGCTTTCGGCA-AAATGGCGCCCTATGGCATGGTACTCCTCGGTACCCTCTCAGTCCTTGGGATTGCGGCTTATGCT
Folag_005       CCTTATTATCCTTCCAGATTTCGAGCTTTCGGCA-AAATGGCGCCCTATGGCATGGTACTCCTCGGTACCCTCTCAGTCCTTGGGATTGCGGCTTATGCT
Fomom_004       CCTTATTATCCTTCCAGATTTCGAGCTTTCGGCA-AAATGGCGCCCTATGGCATGGTACTCCTCGGTACCCTCTCAGTCCTTGGGATTGCGGCTTATGCT
```

fp7310 fwd> Fomln

fp7409 fwd> Fomom+Folag

Marker #1

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                301
Fonic_001       ----------------------------TATTTTTCAACCTGGTCTACGATGAAAATCTGGATAAGGTGGCAGCATCCTCT----GGTGTGTCCCAGAAA
Fonic_003       ----------------------------TATTTTTCAACCTGGTCTACGATGAAAATCTGGATAAGGTGGCAGCATCCTCT----GGTGTGTCCCAGAAA
Fonic_010       ----------------------------TATTTTTCAACCTGGTCTACGATGAAAATCTGGATAAGGTGGCAGCATCCTCT----GGTGTGTCCCAGAAA
Fonic_012       ----------------------------TATTTTTCAACCTGGTCTACGATGAAAATCTGGATAAGGTGGCAGCATCCTCT----GGTGTGTCCCAGAAA
Focub_B2_2      CAAGAGGCTGCAGTTCAGGAACCCCAGGTATTTTTCAACTTAACCTATGATGAATATCTGGATAAGGTGGCAGCATCTTCTG---GGAGTGTCCCAGATA
Focub_II5_2     CAAGAGGCTGCAGTTCAGGAACCCCAGGTATTTTTCAACTTAACCTATGATGAATATCTGGATAAGGTGGCAGCATCTTCTG---GGAGTGTCCCAGATA
Fomel_001_0     CAAGAGGCTGCGGTTCGGGAACCCCAGATATTCTTCAACTTGACCTTCACGGAATATCTGGATAAGGTGGCAGCATCCCACG---GGAGCCCCCCAGACA
Fomel_001_1     CAAGAGGCTGCGGTTCGGGAACCCCAGATATTCTTCAACTTGACCTTTACGGAATATCTGGATAAGGTGGCAGAATCCCACG---GGAGCCCCCCAGACA
Fophy_KOD886    CAAGAGGCTGCGGTTCGGGAACCCCAGATATTTTTCAACTTGACCTTTACGGAATATCTGGATAAGGTGGCAGAATCCCACG---GGAGCCCCCCAGACA
Fophy_KOD887    CAAGAGGCTGCGGTTCGGGAACCCCAGATATTTTTCAACTTGACCTTTACGGAATATCTGGATAAGGTGGCAGAATCCCACG---GGAGCCCCCCAGACA
Fophy_KOD888    CAAGAGGCTGCGGTTCGGGAACCCCAGATATTTTTCAACTTGACCTTTACGGAATATCTGGATAAGGTGGCAGAATCCCACG---GGAGCCCCCCAGACA
Folyc_4287      CAAGAGGCTGCGGTTCGGGAGCCCCAGATATTTTTCAACTTGACCTACACGGAATATCTGGATAAGGTGGCAGCATCCCACG---GGAGTCCCCCAGACA
Folyc_002       CAAGAGGCTGCGGTTCGGGAGCCCCAGATATTTTTCAACTTGACCTACACGGAATATCTGGATAAGGTGGCAGCATCCCACG---GGAGTCCCCCAGACA
Folyc_026       CAAGAGGCTGCGGTTCGGGAGCCCCAGATATTTTTCAACTTGACCTACACGGAATATCTGGATAAGGTGGCAGCATCCCACG---GGAGTCCCCCAGACA
Folyc_038       CAAGAGGCTGCGGTTCGGGAGCCCCAGATATTTTTCAACTTGACCTACACGGAATATCTGGATAAGGTGGCAGCATCCCACG---GGAGTCCCCCAGACA
Folyc_004       CAAGAGGCTGCGGTTCGGGAGCCCCAGATATTTTTCAACTTGACCTACACGGAATATCTGGATAAGGTGGCAGCATCCCACG---GGAGTCCCCCAGACA
Folyc_029       CAAGAGGCTGCGGTTCGGGAGCCCCAGATATTTTTCAACTTGACCTACACGGAATATCTGGATAAGGTGGCAGCATCCCACG---GGAGTCCCCCAGACA
Folyc_074       CAAGAGGCTGCGGTTCGGGAGCCCCAGATATTTTTCAACTTGACCTACACGGAATATCTGGATAAGGTGGCAGCATCCCACG---GGAGTCCCCCAGACA
Folyc_MN25      CAAGAGGCTGCGGTTCGGGAGCCCCAGATATTTTTCAACTTGACCTACACGGAATATCTGGATAAGGTGGCAGCATCCCACG---GGAGTCCCCCAGACA
Folyc_007       CAAGAGGCTGCGGTTCGGGAGCCCCAGATATTTTTCAACTTGACCTACACGGAATATCTGGATAAGGTGGCAGCATCCCACG---GGAGTCCCCCAGACA
Folyc_014       CAAGAGGCTGCGGTTCGGGAGCCCCAGATATTTTTCAACTTGACCTACACGGAATATCTGGATAAGGTGGCAGCATCCCACG---GGAGTCCCCCAGACA
Folyc_016       CAAGAGGCTGCGGTTCGGGAGCCCCAGATATTTTTCAACTTGACCTACACGGAATATCTGGATAAGGTGGCAGCATCCCACG---GGAGTCCCCCAGACA
Folyc_018       CAAGAGGCTGCGGTTCGGGAGCCCCAGATATTTTTCAACTTGACCTACACGGAATATCTGGATAAGGTGGCAGCATCCCACG---GGAGTCCCCCAGACA
Folyc_069       CAAGAGGCTGCGGTTCGGGAGCCCCAGATATTTTTCAACTTGACCTACACGGAATATCTGGATAAGGTGGCAGCATCCCACG---GGAGTCCCCCAGACA
Folyc_072       CAAGAGGCTGCGGTTCGGGAGCCCCAGATATTTTTCAACTTGACCTACACGGAATATCTGGATAAGGTGGCAGCATCCCACG---GGAGTCCCCCAGACA
Folyc_073       CAAGAGGCTGCGGTTCGGGAGCCCCAGATATTTTTCAACTTGACCTACACGGAATATCTGGATAAGGTGGCAGCATCCCACG---GGAGTCCCCCAGACA
Folyc_075       CAAGAGGCTGCGGTTCGGGAGCCCCAGATATTTTTCAACTTGACCTACACGGAATATCTGGATAAGGTGGCAGCATCCCACG---GGAGTCCCCCAGACA
Focon_5176      CAAGAGGCTGCGGTTGGGGAACCCCAGGTATTTTTCAACTTGACCTTCACGGAATACCTGGATAAGGTGGCAGCATCCAAGG---GGAGTCCCCAAGAC-
Focon_PHW808    CAAGAGGCTGCGGTTGGGGAACCCCAGGTATTTTTCAACTTGACCTTCACGGAATACCTGGATAAGGTGGCAGCATCCAAGG---GGAGTCCCCAAGAC-
Fopis_HDV247_1  CAAGACGCTGCGGTTCGGGAACCCCAGATATTTTTCAACTTGACCTACACGGAACATCTGGCTAAGGTGGCAGCATCCTCTGGGGGGAGTGTCCCAGACA
Focub_B2_1      CAAGAGGCTGCGGTTGAGGAACCCCAGATATTTTTCAACTTGACCTACACGGAATATCTGGATAAGGTGGCAGCATCCCACG---GGAGT-TCCCAGACG
Focub_II5_1     CAAGAGGCTGCGGTTGAGGAACCCCAGATATTTTTCAACTTGACCTACACGGAATATCTGGATAAGGTGGCAGCATCCCACG---GGAGT-TCCCAGACG
Focub_N2        CAAGAGGCTGCGGTTGAGGAACCCCAGATATTTTTCAACTTGACCTACACGGAATATCTGGATAAGGTGGCAGCATCCCACG---GGAGT-TCCCAGACG
Focub_B2_0      CAAGAGGCTGCGGTTGAGGAACCCCAGATATTTTTCAACTTGACCTACACGGAATATCTGGATAAGGTGGCAGCATCCCACG---GGAGT-TCCCAGACG
Focub_II5_0     CAAGAGGCTGCGGTTGAGGAACCCCAGATATTTTTCAACTTGACCTACACGGAATATCTGGATAAGGTGGCAGCATCCCACG---GGAGT-TCCCAGACG
Fomln_010_0     CAAGAGGCTGCGCTTCCGAAACCCCAGATATTTTTCAACTTAACCTACACGGAACATCTCGATAAGGTGGCAGCCGCATCTG---GAAGTATCCCAGACA
Fomln_009_0     CAAGAGGCTGCGCTTCCGAAACCCCAGATATTTTTCAACTTAACCTACACGGAACATCTCGATAAGGTGGCAGCCGCATCTG---GAAGTATCCCAGACA
Fomln_011_0     CAAGAGGCTGCGCTTCCGAAACCCCAGATATTTTTCAACTTAACCTACACGGAACATCTCGATAAGGTGGCAGCCGCATCTG---GAAGTATCCCAGACA
Fopis_HDV247_0  CAAGAGGCTGCGGTTCGAGAACCCCAGATATTTTTCAACTTGACCTACACGGAACATCTAGATAAGGTGGCAGCATCCTCTG---GGAGTCCCCCAGACA
Fomln_001       CAAGAGGCTGCGGTTCGGGAACCCCAGATATTTTTCAACTTGACCTACGCGGAACATCTGGATAAGGTGGCAGCAGCCTCTGGTCGGAGTCCCCCAGACA
Fomln_004       CAAGAGGCTGCGGTTCGGGAACCCCAGATATTTTTCAACTTGACCTACGCGGAACATCTGGATAAGGTGGCAGCAGCCTCTGGTCGGAGTCCCCCAGACA
Fomln_005       CAAGAGGCTGCGGTTCGGGAACCCCAGATATTTTTCAACTTGACCTACGCGGAACATCTGGATAAGGTGGCAGCAGCCTCTGGTCGGAGTCCCCCAGACA
Fomln_009_1     CAAGAGGCTGCGGTTCGGGAACCCCAGATATTTTTCAACTTGACCTACGCGGAACATCTGGATAAGGTGGCAGCAGCCTCTGGTCGGAGTCCCCCAGACA
Fomln_011_1     CAAGAGGCTGCGGTTCGGGAACCCCAGATATTTTTCAACTTGACCTACGCGGAACATCTGGATAAGGTGGCAGCAGCCTCTGGTCGGAGTCCCCCAGACA
Fomln_012       CAAGAGGCTGCGGTTCGGGAACCCCAGATATTTTTCAACTTGACCTACGCGGAACATCTGGATAAGGTGGCAGCAGCCTCTGGTCGGAGTCCCCCAGACA
Fomln_006       CAAGAGGCTGCGGTTCGGGAACCCCAGATATTTTTCAACTTGACCTACGCGGAACATCTGGATAAGGTGGCAGCAGCCTCTGGTCGGAGTCCCCCAGACA
Fomln_010_1     CAAGAGGCTGCGGTTCGGGAACCCCAGATATTTTTCAACTTGACCTACGCGGAACATCTGGATAAGGTGGCAGCAGCCTCTGGTCGGAGTCCCCCAGACA
Fomln_013       CAAGAGGCTGCGGTTCGGGAACCCCAGATATTTTTCAACTTGACCTACGCGGAACATCTGGATAAGGTGGCAGCAGCCTCTGGTCGGAGTCCCCCAGACA
Fomln_016       CAAGAGGCTGCGGTTCGGGAACCCCAGATATTTTTCAACTTGACCTACGCGGAACATCTGGATAAGGTGGCAGCAGCCTCTGGTCGGAGTCCCCCAGACA
Folag_001       CAAGAGGCTGCGGTTCGGGAACCCCAGATATTTTTCAACTTGACCTACGCGGAACATCTGGATAAGGTGGCAGCAGCCTCTGGTCGGAGTCCCCCAGACA
Folag_002       CAAGAGGCTGCGGTTCGGGAACCCCAGATATTTTTCAACTTGACCTACGCGGAACATCTGGATAAGGTGGCAGCAGCCTCTGGTCGGAGTCCCCCAGACA
Fomom_001       CAAGAGGCTGCGGTTCGGGAACCCCAGATATTTTTCAACTTGACCTACGCGGAACATCTGGATAAGGTGGCAGCAGCCTCTGGTCGGAGTCCCCCAGACA
Folag_004       CAAGAGGCTGCGGTTCGGGAACCCCAGATATTTTTCAACTTGACCTACGCGGAACATCTGGATAAGGTGGCAGCAGCCTCTGGTCGGAGTCCCCCAGACA
Folag_005       CAAGAGGCTGCGGTTCGGGAACCCCAGATATTTTTCAACTTGACCTACGCGGAACATCTGGATAAGGTGGCAGCAGCCTCTGGTCGGAGTCCCCCAGACA
Fomom_004       CAAGAGGCTGCGGTTCGGGAACCCCAGATATTTTTCAACTTGACCTACGCGGAACATCTGGATAAGGTGGCAGCAGCCTCTGGTCGGAGTCCCCCAGACA

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Fonic_001       ACAGTAATTTGCCCTTGGATGGCGCTATGAATAGCTTTCCTTCGAA------------------------TGAAACGGAAAGCAGCCTATCAAAGCATCG
Fonic_003       ACAGTAATTTGCCCTTGGATGGCGCTATGAATAGCTTTCCTTCGAA------------------------TGAAACGGAAAGCAGCCTATCAAAGCATCG
Fonic_010       ACAGTAATTTGCCCTTGGATGGCGCTATGAATAGCTTTCCTTCGAA------------------------TGAAACGGAAAGCAGCCTATCAAAGCATCG
Fonic_012       ACAGTAATTTGCCCTTGGATGGCGCTATGAATAGCTTTCCTTCGAA------------------------TGAAACGGAAAGCAGCCTATCAAAGCATCG
Focub_B2_2      ACAGTGATTTGCCCTGGGATGACACTATGAGCAGCCTTCCTTCAAACGAGACGTACGATAGTGTTCAGACCGAGACGAGCAGCAGCCTATCGAGGCGTGG
Focub_II5_2     ACAGTGATTTGCCCTGGGATGACACTATGAGCAGCCTTCCTTCAAACGAGACGTACGATAGTGTTCAGACCGAGACGAGCAGCAGCCTATCGAGGCGTGG
Fomel_001_0     AGAGTGATTTGCCCTGGAATGACACTATGAGCAGCTTTCCTGGAAACGAGACGGACGATGGCGTTCAGACCGAGACGGGCAGCAGCCTATCGAGGCGTGG
Fomel_001_1     AGAGTGATTTGCCCTGGAATGACACTATGAGCAGCTTTCCTGGAAACGAGACGGACGATGGTGTTCAGACCGAGACGGGCAGCAGCCTATCGAGGCGTGG
Fophy_KOD886    AGAGTGATTTGCCCTGGAATGACACTATGAGCAGCTTTCCTGGAAACGAGACGGACGATGGTGTTCAGACCGAGACGGGCAGCAGCCTATCGAGGCGTGG
Fophy_KOD887    AGAGTGATTTGCCCTGGAATGACACTATGAGCAGCTTTCCTGGAAACGAGACGGACGATGGTGTTCAGACCGAGACGGGCAGCAGCCTATCGAGGCGTGG
Fophy_KOD888    AGAGTGATTTGCCCTGGAATGACACTATGAGCAGCTTTCCTGGAAACGAGACGGACGATGGTGTTCAGACCGAGACGGGCAGCAGCCTATCGAGGCGTGG
Folyc_4287      AGAGTGATTTGCCCTGGAATGACACTATGGGCAGCTTTCCTGGAAACGAGACGGACGATGGTGTCCAGACCGAGACGGGCAGCAGCCTATCGAGGCGTGG
Folyc_002       AGAGTGATTTGCCCTGGAATGACACTATGGGCAGCTTTCCTGGAAACGAGACGGACGATGGTGTCCAGACCGAGACGGGCAGCAGCCTATCGAGGCGTGG
Folyc_026       AGAGTGATTTGCCCTGGAATGACACTATGGGCAGCTTTCCTGGAAACGAGACGGACGATGGTGTCCAGACCGAGACGGGCAGCAGCCTATCGAGGCGTGG
Folyc_038       AGAGTGATTTGCCCTGGAATGACACTATGGGCAGCTTTCCTGGAAACGAGACGGACGATGGTGTCCAGACCGAGACGGGCAGCAGCCTATCGAGGCGTGG
Folyc_004       AGAGTGATTTGCCCTGGAATGACACTATGGGCAGCTTTCCTGGAAACGAGACGGACGATGGTGTCCAGACCGAGACGGGCAGCAGCCTATCGAGGCGTGG
Folyc_029       AGAGTGATTTGCCCTGGAATGACACTATGGGCAGCTTTCCTGGAAACGAGACGGACGATGGTGTCCAGACCGAGACGGGCAGCAGCCTATCGAGGCGTGG
Folyc_074       AGAGTGATTTGCCCTGGAATGACACTATGGGCAGCTTTCCTGGAAACGAGACGGACGATGGTGTCCAGACCGAGACGGGCAGCAGCCTATCGAGGCGTGG
Folyc_MN25      AGAGTGATTTGCCCTGGAATGACACTATGGGCAGCTTTCCTGGAAACGAGACGGACGATGGTGTCCAGACCGAGACGGGCAGCAGCCTATCGAGGCGTGG
Folyc_007       AGAGTGATTTGCCCTGGAATGACACTATGGGCAGCTTTCCTGGAAACGAGACGGACGATGGTGTCCAGACCGAGACGGGCAGCAGCCTATCGAGGCGTGG
Folyc_014       AGAGTGATTTGCCCTGGAATGACACTATGGGCAGCTTTCCTGGAAACGAGACGGACGATGGTGTCCAGACCGAGACGGGCAGCAGCCTATCGAGGCGTGG
Folyc_016       AGAGTGATTTGCCCTGGAATGACACTATGGGCAGCTTTCCTGGAAACGAGACGGACGATGGTGTCCAGACCGAGACGGGCAGCAGCCTATCGAGGCGTGG
Folyc_018       AGAGTGATTTGCCCTGGAATGACACTATGGGCAGCTTTCCTGGAAACGAGACGGACGATGGTGTCCAGACCGAGACGGGCAGCAGCCTATCGAGGCGTGG
Folyc_069       AGAGTGATTTGCCCTGGAATGACACTATGGGCAGCTTTCCTGGAAACGAGACGGACGATGGTGTCCAGACCGAGACGGGCAGCAGCCTATCGAGGCGTGG
Folyc_072       AGAGTGATTTGCCCTGGAATGACACTATGGGCAGCTTTCCTGGAAACGAGACGGACGATGGTGTCCAGACCGAGACGGGCAGCAGCCTATCGAGGCGTGG
Folyc_073       AGAGTGATTTGCCCTGGAATGACACTATGGGCAGCTTTCCTGGAAACGAGACGGACGATGGTGTCCAGACCGAGACGGGCAGCAGCCTATCGAGGCGTGG
Folyc_075       AGAGTGATTTGCCCTGGAATGACACTATGGGCAGCTTTCCTGGAAACGAGACGGACGATGGTGTCCAGACCGAGACGGGCAGCAGCCTATCGAGGCGTGG
Focon_5176      --ATTGGTTTGCCCCGGAATGACACTATGGGCAGCTTTCCTGGGAA------------------------CGAGACGGGCAGCAGCCTATCGAGGCGTGG
Focon_PHW808    --ATTGGTTTGCCCCGGAATGACACTATGGGCAGCTTTCCTGGGAA------------------------CGAGACGGGCAGCAGCCTATCGAGGCGTGG
Fopis_HDV247_1  ACAGTGATTTGCCCTGGGATGACACGATGAGCAGCTTTCCTTGGAACGGAACGGACGATGGTAATCAGACCGAGGCGGGCAGCAGCCTATCGAGGCGTGG
Focub_B2_1      --AGTGATTTGCCGTGGAATGACACTATGAGCGGCTTTCCTGGGAA------------------------CGAGACGGGCAGCAGCCTATCGAGGCGTGG
Focub_II5_1     --AGTGATTTGCCGTGGAATGACACTATGAGCGGCTTTCCTGGGAA------------------------CGAGACGGGCAGCAGCCTATCGAGGCGTGG
Focub_N2        --AGTGATTTGCCGTGGAATGACACTATGAGCGGCTTTCCTGGGAA------------------------CGAGACGGGCAGCAGCCTATCGAGGCGTGG
Focub_B2_0      --AGTGATTTGCCGTGGAATGACACTATGAGCGGCTTTCCTGGGAA------------------------CGAGACGGGCAGCAGCCTATCGAGGCGTGG
Focub_II5_0     --AGTGATTTGCCGTGGAATGACACTATGAGCGGCTTTCCTGGGAA------------------------CGAGACGGGCAGCAGCCTATCGAGGCGTGG
Fomln_010_0     ACAGTGATTTGCCCTGGGATGAGACTATTAGCAGCATTCCTTGGAATGAGATGGACGACGATGTTCAGACCGAGACGGGCAGCAGCCTATCGAGGCGTGG
Fomln_009_0     ACAGTGATTTGCCCTGGGATGAGACTATTAGCAGCATTCCTTGGAATGAGATGGACGACGATGTTCAGACCGAGACGGGCAGCAGCCTATCGAGGCGTGG
Fomln_011_0     ACAGTGATTTGCCCTGGGATGAGACTATTAGCAGCATTCCTTGGAATGAGATGGACGACGATGTTCAGACCGAGACGGGCAGCAGCCTATCGAGGCGTGG
Fopis_HDV247_0  ACATTGATTTGCCCTGGGATGACACTATGACCAGCTTTCCTTGGAACGGACGGACGATGGTGTTCAGACCGAGACGGGCAGCAGCCTATCGAGGCGTGG
Fomln_001       ACAGTGATTTGCCCTGGGATGACACTATGAGCAGCTTCCCTTGGAACGAGACAGACAATGATGTTCAGGCCGAGACGGGCAACAGCCTATCGAGGCGTGG
Fomln_004       ACAGTGATTTGCCCTGGGATGACACTATGAGCAGCTTCCCTTGGAACGAGACAGACAATGATGTTCAGGCCGAGACGGGCAACAGCCTATCGAGGCGTGG
Fomln_005       ACAGTGATTTGCCCTGGGATGACACTATGAGCAGCTTCCCTTGGAACGAGACAGACAATGATGTTCAGGCCGAGACGGGCAACAGCCTATCGAGGCGTGG
Fomln_009_1     ACAGTGATTTGCCCTGGGATGACACTATGAGCAGCTTCCCTTGGAACGAGACAGACAATGATGTTCAGGCCGAGACGGGCAACAGCCTATCGAGGCGTGG
Fomln_011_1     ACAGTGATTTGCCCTGGGATGACACTATGAGCAGCTTCCCTTGGAACGAGACAGACAATGATGTTCAGGCCGAGACGGGCAACAGCCTATCGAGGCGTGG
Fomln_012       ACAGTGATTTGCCCTGGGATGACACTATGAGCAGCTTCCCTTGGAACGAGACAGACAATGATGTTCAGGCCGAGACGGGCAACAGCCTATCGAGGCGTGG
Fomln_006       ACAGTGATTTGCCCTGGGATGACACTATGAGCAGCTTCCCTTGGAACGAGACAGACAATGATGTTCAGGCCGAGACGGGCAACAGCCTATCGAGGCGTGG
Fomln_010_1     ACAGTGATTTGCCCTGGGATGACACTATGAGCAGCTTCCCTTGGAACGAGACAGACAATGATGTTCAGGCCGAGACGGGCAACAGCCTATCGAGGCGTGG
Fomln_013       ACAGTGATTTGCCCTGGGATGACACTATGAGCAGCTTCCCTTGGAACGAGACAGACAATGATGTTCAGGCCGAGACGGGCAACAGCCTATCGAGGCGTGG
Fomln_016       ACAGTGATTTGCCCTGGGATGACACTATGAGCAGCTTCCCTTGGAACGAGACAGACAATGATGTTCAGGCCGAGACGGGCAACAGCCTATCGAGGCGTGG
Folag_001       ACAGTGATTTACCCTGGGATGACACTATGAGCAGCTTCCCTTGGAACGAGACAGACAATGATGTTCAGGCCGAGACGGGCAACAGCCTATCGAGGCGTGG
Folag_002       ACAGTGATTTACCCTGGGATGACACTATGAGCAGCTTCCCTTGGAACGAGACAGACAATGATGTTCAGGCCGAGACGGGCAACAGCCTATCGAGGCGTGG
Fomom_001       ACAGTGATTTACCCTGGGATGACACTATGAGCAGCTTCCCTTGGAACGAGACAGACAATGATGTTCAGGCCGAGACGGGCAACAGCCTATCGAGGCGTGG
Folag_004       ACAGTGATTTACCCTGGGATGACACTATGAGCAGCTTCCCTTGGAACGAGACAGACAATGATGTTCAGGCCGAGACGGGCAACAGCCTATCGAGGCGTGG
Folag_005       ACAGTGATTTACCCTGGGATGACACTATGAGCAGCTTCCCTTGGAACGAGACAGACAATGATGTTCAGGCCGAGACGGGCAACAGCCTATCGAGGCGTGG
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Marker #1

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                501
Fonic_001       TCGTATTATTAGCCTTGGAAAGCGTGAGCCTCTCGAT-GGGAGACTCTCAACAATGATTTCACCAACGATGTGCTCCAGGAGCTTCATGGTCTGTGCGTC
Fonic_003       TCGTATTATTAGCCTTGGAAAGCGTGAGCCTCTCGAT-GGGAGACTCTCAACAATGATTTCACCAACGATGTGCTCCAGGAGCTTCATGGTCTGTGCGTC
Fonic_010       TCGTATTATTAGCCTTGGAAAGCGTGAGCCTCTCGAT-GGGAGACTCTCAACAATGATTTCACCAACGATGTGCTCCAGGAGCTTCATGGTCTGTGCGTC
Fonic_012       TCGTATTATTAGCCTTGGAAAGCGTGAGCCTCTCGAT-GGGAGACTCTCAACAATGATTTCACCAACGATGTGCTCCAGGAGCTTCATGGTCTGTGCGTC
Focub_B2_2      TCGCGTTTTCAATCTCGGAAAGCGTGAGCCTGTCGGCGGGGAGACTCAAAACGATCAGGTCACCAATGATATGCTCCAGGCGCTTCATGGTCTGTGTGTT
Focub_II5_2     TCGCGTTTTCAATCTCGGAAAGCGTGAGCCTGTCGGCGGGGAGACTCAAAACGATCAGGTCACCAATGATATGCTCCAGGCGCTTCATGGTCTGTGTGTT
Fomel_001_0     TCACATTGTCAACCTTGGAAAGCGTGAGATTGTCGGCGAGGAGCATCGCAACGGTCGCGTCACCAATGACATGCTCCAGGCGCTTCATGATCTGTGCGTT
Fomel_001_1     TCACATTGTCAACCTTGGAAAGCGTGAGATTGTCGGCGGGGAGTCTCGCAACGATGCTGTCACCAATCACATGCTCCAGGTGCTTCATGATATTTGCGTT
Fophy_KOD886    TCACATTGTCAACCTTGGAAAGCGTGAGATTGTCCGCGGGGAGTCTCGCAACGATGCTGTCACCAATGACATGCTCCAGGTGCTTCATAATATTTGCGTT
Fophy_KOD887    TCACATTGTCAACCTTGGAAAGCGTGAGATTGTCCGCGGGGAGTCTCGCAACGATGCTGTCACCAATGACATGCTCCAGGTGCTTCATAATATTTGCGTT
Fophy_KOD888    TCACATTGTCAACCTTGGAAAGCGTGAGATTGTCCGCGGGGAGTCTCGCAACGATGCTGTCACCAATGACATGCTCCAGGTGCTTCATAATATTTGCGTT
Folyc_4287      TCACATTGTCAACCTTAGAAAGCGTGAGCCTTTCGGGGAGGAGTCTCGCAACGATCGTGTCACACAAGACATGCTCCAGGCGCTTCATGATCTGTGCGTT
Folyc_002       TCACATTGTCAACCTTAGAAAGCGTGAGCCTTTCGGGGAGGAGTCTCGCAACGATCGTGTCACACAAGACATGCTCCAGGCGCTTCATGATCTGTGCGTT
Folyc_026       TCACATTGTCAACCTTAGAAAGCGTGAGCCTTTCGGGGAGGAGTCTCGCAACGATCGTGTCACACAAGACATGCTCCAGGCGCTTCATGATCTGTGCGTT
Folyc_038       TCACATTGTCAACCTTAGAAAGCGTGAGCCTTTCGGGGAGGAGTCTCGCAACGATCGTGTCACACAAGACATGCTCCAGGCGCTTCATGATCTGTGCGTT
Folyc_004       TCACATTGTCAACCTTAGAAAGCGTGAGCCTTTCGGGGAGGAGTCTCGCAACGATCGTGTCACACAAGACATGCTCCAGGCGCTTCATGATCTGTGCGTT
Folyc_029       TCACATTGTCAACCTTAGAAAGCGTGAGCCTTTCGGGGAGGAGTCTCGCAACGATCGTGTCACACAAGACATGCTCCAGGCGCTTCATGATCTGTGCGTT
Folyc_074       TCACATTGTCAACCTTAGAAAGCGTGAGCCTTTCGGGGAGGAGTCTCGCAACGATCGTGTCACACAAGACATGCTCCAGGCGCTTCATGATCTGTGCGTT
Folyc_MN25      TCACATTGTCAACCTTAGAAAGCGTGAGCCTTTCGGGGAGGAGTCTCGCAACGATCGTGTCACACAAGACATGCTCCAGGCGCTTCATGATCTGTGCGTT
Folyc_007       TCACATTGTCAACCTTAGAAAGCGTGAGCCTTTCGGGGAGGAGTCTCGCAACGATCGTGTCACACAAGACATGCTCCAGGCGCTTCATGATCTGTGCGTT
Folyc_014       TCACATTGTCAACCTTAGAAAGCGTGAGCCTTTCGGGGAGGAGTCTCGCAACGATCGTGTCACACAAGACATGCTCCAGGCGCTTCATGATCTGTGCGTT
Folyc_016       TCACATTGTCAACCTTAGAAAGCGTGAGCCTTTCGGGGAGGAGTCTCGCAACGATCGTGTCACACAAGACATGCTCCAGGCGCTTCATGATCTGTGCGTT
Folyc_018       TCACATTGTCAACCTTAGAAAGCGTGAGCCTTTCGGGGAGGAGTCTCGCAACGATCGTGTCACACAAGACATGCTCCAGGCGCTTCATGATCTGTGCGTT
Folyc_069       TCACATTGTCAACCTTAGAAAGCGTGAGCCTTTCGGGGAGGAGTCTCGCAACGATCGTGTCACACAAGACATGCTCCAGGCGCTTCATGATCTGTGCGTT
Folyc_072       TCACATTGTCAACCTTAGAAAGCGTGAGCCTTTCGGGGAGGAGTCTCGCAACGATCGTGTCACACAAGACATGCTCCAGGCGCTTCATGATCTGTGCGTT
Folyc_073       TCACATTGTCAACCTTAGAAAGCGTGAGCCTTTCGGGGAGGAGTCTCGCAACGATCGTGTCACACAAGACATGCTCCAGGCGCTTCATGATCTGTGCGTT
Folyc_075       TCACATTGTCAACCTTAGAAAGCGTGAGCCTTTCGGGGAGGAGTCTCGCAACGATCGTGTCACACAAGACATGCTCCAGGCGCTTCATGATCTGTGCGTT
Focon_5176      TCGCATCGTCAACCTTAGAAAGCGTGCTCCTGTCGAAGGGGAGGATCGCAATGATCATGTCACCAATGACATGCTCCAGGCGCTTCATGATATGTGCGTT
Focon_PHW808    TCGCATCGTCAACCTTAGAAAGCGTGCTCCTGTCGAAGGGGAGGATCGCAATGATCATGTCACCAATGACATGCTCCAGGCGCTTCATGATATGTGCGTT
Fopis_HDV247_1  TCGTATTTTCAAGCTTGGAAAGCGTGACCCTGTCGGCGGGGAGGCTCGCAACGATGCTGTCACCAATGACATGCTCCAGGCGCTTCATGATCTGTGCGTT
Focub_B2_1      TCGCATTGTCAACCTTGGAAAGCGTGACCCTGTCGGCGGGGAGGCTCACAACAATCGCGTCACCAATGACATGCTCCAGGCGCTTCATGATCTGTGTGTT
Focub_II5_1     TCGCATTGTCAACCTTGGAAAGCGTGACCCTGTCGGCGGGGAGGCTCACAACAATCGCGTCACCAATGACATGCTCCAGGCGCTTCATGATCTGTGTGTT
Focub_N2        TCGCATTGTCAACCTTGGAAAGCGTGTCCCTGTCGGCGGGGAGTCTTTCAACGATCGTGTCACCAATGACATGCTCCAGGCGCTTCATGGTCTCTGCGTT
Focub_B2_0      TCGCATTGTCAACCTTGGAAAGCGTGACCCTGTCGGCGGGGAGGCTTTCAATGATCGTGTCACCAATGACATGCTCCAGGCGCTTCATGGTCTCTGCGTT
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Fomln_011_0     TCGCATTTCCAACCTTGGAAAGCGTGAGCCTGTCGGCGGGGAGACTCGCAACGATGCTGTCGCCAATGACATGCTCCAGGCGATTCATGGTCTGTGCGTT
Fopis_HDV247_0  TCGCATTTCCAACCTTGGAAAGCGTGACCCTGTCGGCGGGGAGACTCGCAACGATGCTGTCACCAATGACATGCTCCAGGCGATTCACGGTCTGTGCGTT
Fomln_001       TCGCGTTGTCAACCTTAAGAAGCGGGACCCTGTCGGCTGGGAGACTCTCAACGATCATGTCACCAATGACATGCTCCAGGCGCTTCATGATCTGTGCGTT
Fomln_004       TCGCGTTGTCAACCTTAAGAAGCGGGACCCTGTCGGCTGGGAGACTCTCAACGATCATGTCACCAATGACATGCTCCAGGCGCTTCATGATCTGTGCGTT
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Fomln_009_1     TCGCGTTGTCAACCTTAAGAAGCGGGACCCTGTCGGCTGGGAGACTCTCAACGATCATGTCACCAATGACATGCTCCAGGCGCTTCATGATCTGTGCGTT
Fomln_011_1     TCGCGTTGTCAACCTTAAGAAGCGGGACCCTGTCGGCTGGGAGACTCTCAACGATCATGTCACCAATGACATGCTCCAGGCGCTTCATGATCTGTGCGTT
Fomln_012       TCGCGTTGTCAACCTTAAGAAGCGGGACCCTGTCGGCTGGGAGACTCTCAACGATCATGTCACCAATGACATGCTCCAGGCGCTTCATGATCTGTGCGTT
Fomln_006       TCGCGTTGTCAACCTTAAGAAGCGGGACCCTGTCGGCTGGGAGACTCTCAACGATCATGTCACCAATGACATGCTCCAGGCGCTTCATGATCTGTGCGTT
Fomln_010_1     TCGCGTTGTCAACCTTAAGAAGCGGGACCCTGTCGGCTGGGAGACTCTCAACGATCATGTCACCAATGACATGCTCCAGGCGCTTCATGATCTGTGCGTT
Fomln_013       TCGCGTTGTCAACCTTAAGAAGCGGGACCCTGTCGGCTGGGAGACTCTCAACGATCATGTCACCAATGACATGCTCCAGGCGCTTCATGATCTGTGCGTT
Fomln_016       TCGCGTTGTCAACCTTAAGAAGCGGGACCCTGTCGGCTGGGAGACTCTCAACGATCATGTCACCAATGACATGCTCCAGGCGCTTCATGATCTGTGCGTT
Folag_001       TCGCGTTGTCAACCTTAAGAAGCGGGACCCTGTCGGCGGGGAGACTCTCAACGATCATGTCACCAATGACATGCTCCAGGCACTTCATGATCTGTGCGTT
Folag_002       TCGCGTTGTCAACCTTAAGAAGCGGGACCCTGTCGGCGGGGAGACTCTCAACGATCATGTCACCAATGACATGCTCCAGGCACTTCATGATCTGTGCGTT
Fomom_001       TCGCGTTGTCAACCTTAAGAAGCGGGACCCTGTCGGCGGGGAGACTCTCAACGATCATGTCACCAATGACATGCTCCAGGCACTTCATGATCTGTGCGTT
Folag_004       TCGCGTTGTCAACCTTAAGAAGCGGGACCCTGTCGGCGGGGAGACTCTCAACGATCATGTCACCAATGACATGCTCCAGGCACTTCATGATCTGTGCGTT
Folag_005       TCGCGTTGTCAACCTTAAGAAGCGGGACCCTGTCGGCGGGGAGACTCTCAACGATCATGTCACCAATGACATGCTCCAGGCACTTCATGATCTGTGCGTT
Fomom_004       TCGCGTTGTCAACCTTAAGAAGCGGGACCCTGTCGGCGGGGAGACTCTCAACGATCATGTCACCAATGACATGCTCCAGGCACTTCATGATCTGTGCGTT

                601
Fonic_001       GAAAGATTTGGCGCAGGCTGGCGAGCGATTGATGGGACATGTAACG---------GCGGGAAT---AGGGTTATTAATTGTTCGACGCCGGATATCCCTA
Fonic_003       GAAAGATTTGGCGCAGGCTGGCGAGCGATTGATGGGACATGTAACG---------GCGGGAAT---AGGGTTATTAATTGTTCGACGCCGGATATCCCTA
Fonic_010       GAAAGATTTGGCGCAGGCTGGCGAGCGATTGATGGGACATGTAACG---------GCGGGAAT---AGGGTTATTAATTGTTCGACGCCGGATATCCCTA
Fonic_012       GAAAGATTTGGCGCAGGCTGGCGAGCGATTGATGGGACATGTAACG---------GCGGGAAT---AGGGTTATTAATTGTTCGACGCCGGATATCCCTA
Focub_B2_2      GAAAAATATGGCACAGGCTGGCGAGCGGTTAGTGGGATATGTCGCG---------GCCGGACG---AGGGATATAAATTGTGGGAATCCGGATATCCCAG
Focub_II5_2     GAAAAATATGGCACAGGCTGGCGAGCGGTTAGTGGGATATGTCGCG---------GCCGGACG---AGGGATATAAATTGTGGGAATCCGGATATCCCAG
Fomel_001_0     GAAGCATTTGGCACAGGCTGGCGAGCGTATAGCGGGCTTTGTGACC---------TCCG---GATTAGGAGGATCAATTGTGGGAAGGTGGATGTCCCTG
Fomel_001_1     GAAAGATTTGGACTGGCTGGCGAGCGGTTAAAGGGTATTGTGACA---------AGGGGCGGTACAGGAGAGTGAGATGTAAGAGGCCGGATGACACTG
Fophy_KOD886    GAAAGATTTGGAACTGGCTGGCGAGCGGTTGGCGGGTATTGTGACC---------GCCGGTCC---AGGAGAGTAAAATGTAGGAGGCCGGATGACACTG
Fophy_KOD887    GAAAGATTTGGAACTGGCTGGCGAGCGGTTGGCGGGTATTGTGACC---------GCCGGTCC---AGGAGAGTAAAATGTAGGAGGCCGGATGACACTG
Fophy_KOD888    GAAAGATTTGGAACTGGCTGGCGAGCGGTTGGCGGGTATTGTGACC---------GCCGGTCC---AGGAGAGTAAAATGTAGGAGGCCGGATGACACTG
Folyc_4287      GAAAGATTTGGCACAGGCTATCGAGCGGTTAGTGGGTTATGTTACA---CTGATCGTCGGGCGACTAGGAAAATCGAATGTAATAAACCGTCTGTCAGGG
Folyc_002       GAAAGATTTGGCACAGGCTATCGAGCGGTTAGTGGGTTATGTTACA---CTGATCGTCGGGCGACTAGGAAAATCGAATGTAATAAACCGTCTGTCAGGG
Folyc_026       GAAAGATTTGGCACAGGCTATCGAGCGGTTAGTGGGTTATGTTACA---CTGATCGTCGGGCGACTAGGAAAATCGAATGTAATAAACCGTCTGTCAGGG
Folyc_038       GAAAGATTTGGCACAGGCTATCGAGCGGTTAGTGGGTTATGTTACA---CTGATCGTCGGGCGACTAGGAAAATCGAATGTAATAAACCGTCTGTCAGGG
Folyc_004       GAAAGATTTGGCACAGGCTATCGAGCGGTTAGTGGGTTATGTTACA---CTGATCGTCGGGCGACTAGGAAAATCGAATGTAATAAACCGTCTGTCAGGG
Folyc_029       GAAAGATTTGGCACAGGCTATCGAGCGGTTAGTGGGTTATGTTACA---CTGATCGTCGGGCGACTAGGAAAATCGAATGTAATAAACCGTCTGTCAGGG
Folyc_074       GAAAGATTTGGCACAGGCTATCGAGCGGTTAGTGGGTTATGTTACA---CTGATCGTCGGGCGACTAGGAAAATCGAATGTAATAAACCGTCTGTCAGGG
Folyc_MN25      GAAAGATTTGGCACAGGCTATCGAGCGGTTAGTGGGTTATGTTACA---CTGATCGTCGGGCGACTAGGAAAATCGAATGTAATAAACCGTCTGTCAGGG
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Folyc_073       GAAAGATTTGGCACAGGCTATCGAGCGGTTAGTGGGTTATGTTACA---CTGATCGTCGGGCGACTAGGAAAATCGAATGTAATAAACCGTCTGTCAGGG
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Focon_5176      GAAAGATTTGGCGCAGGCCATCGAGCGACTAGTGGGTTATGTCGCC---CTGAGCGTCGGGCGACTAGGAAATTCGAATGCGCCCGCCCGGGTGTCCCAG
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Fopis_HDV247_1  GATACACATGGCACAGGCTGGCGAGCGTCTTATGGGTGGTGTAGCG---------GCCAGGTG---AGGGATATCGCTTGTGGGCGTCCGGATACCCCTA
Focub_B2_1      GAAGCATATGGCACAGGCTGGCGAGCGATTAGTGGGTCGTGTCAAG---------ACCAGGCAACGAGGCGTATCTATTGTGGGAATCCGAATGTCGCTG
Focub_II5_1     GAAGCATATGGCACAGGCTGGCGAGCGATTAGTGGGTCGTGTCAAG---------ACCAGGCAACGAGGCGTATCTATTGTGGGAATCCGAATGTCGCTG
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Focub_B2_0      GAAAATTTTGGCACAGGCTTTCGAGCGACTAATGGGTACTGTCGCG---CTAACCGTCGGGCGACTAGGGAAATCCAATGTGCGCGCCCGGGTACCAGAG
Focub_II5_0     GAAAATTTTGGCACAGGCTTTCGAGCGACTAATGGGTACTGTCGCG---CTAACCGTCGGGCGACTAGGGAAATCCAATGTGCGCGCCCGGGTACCAGAG
Fomln_010_0     GAAAGATTTGGCACAGGCCATCGAGCGGCTAGTGGGAGGTGTAATG---------GCCGGCAG---AGGGCTATCGTTTGTGCGAACCCGCATATCGCTG
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Fomln_005       CAAAAATTTGGCGCAGGCCATCGAGCGACTAGTGGGTTGTGTCTCG---------GTAAGCTG---AAGCGAGTCAGTTGTGGGAAGCCGGATGTCAGAG
Fomln_009_1     CAAAAATTTGGCGCAGGCCATCGAGCGACTAGTGGGTTGTGTCTCG---------GTAAGCTG---AAGCGAGTCAGTTGTGGGAAGCCGGATGTCAGAG
Fomln_011_1     CAAAAATTTGGCGCAGGCCATCGAGCGACTAGTGGGTTGTGTCTCG---------GTAAGCTG---AAGCGAGTCAGTTGTGGGAAGCCGGATGTCAGAG
Fomln_012       CAAAAATTTGGCGCAGGCCATCGAGCGACTAGTGGGTTGTGTCTCG---------GTAAGCTG---AAGCGAGTCAGTTGTGGGAAGCCGGATGTCAGAG
Fomln_006       CAAAAATTTGGCGCAGGCCATCGAGCGACTAGTGGGTTGTGTCTCG---------GTAAGCTG---AAGCGAGTCAGTTGTGGGAAGCCGGATGTCAGAG
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Fomln_013       CAAAAATTTGGCGCAGGCCATCGAGCGACTAGTGGGTTGTGTCTCG---------GTAAGCTG---AAGCGAGTCAGTTGTGGGAAGCCGGATGTCAGAG
Fomln_016       CAAAAATTTGGCGCAGGCCATCGAGCGACTAGTGGGTTGTGTCTCG---------GTAAGCTG---AAGCGAGTCAGTTGTGGGAAGCCGGATGTCAGAG
Folag_001       GGAAAATATGGCACAGGCTGGCGAGCGACTAGTGGGTCGTGTAAGG---------GCCGGCAG---AGGACTATCTTGTGTGGGGTGCCTGGTATCACTA
Folag_002       GGAAAATATGGCACAGGCTGGCGAGCGACTAGTGGGTCGTGTAAGG---------GCCGGCAG---AGGACTATCTTGTGTGGGGTGCCTGGTATCACTA
Fomom_001       GGAAAATATGGCACAGGCTGGCGAGCGACTAGTGGGTCGTGTAAGG---------GCCGGCAG---AGGACTATCTTGTGTGGGGTGCCTGGTATCACTA
Folag_004       GGAAAATATGGCACAGGCTGGCGAGCGACTAGTGGGTCGTGTAAGG---------GCCGGCAG---AGGACTATCTTGTGTGGGGTGCCTGGTATCACTA
Folag_005       GGAAAATATGGCACAGGCTGGCGAGCGACTAGTGGGTCGTGTAAGG---------GCCGGCAG---AGGACTATCTTGTGTGGGGTGCCTGGTATCACTA
Fomom_004       GGAAAATATGGCACAGGCTGGCGAGCGACTAGTGGGTCGTGTAAGG---------GCCGGCAG---AGGACTATCTTGTGTGGGGTGCCTGGTATCACTA
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Marker #1

fp7327 rev< Fomln

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                701
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Fonic_003       GGTCCTCGAGACAAGTTTACAGAGCTTGCCCAGACAGCCAGGAGTGCACCACTTTCCAGGCGATCAACTTTC---------GTCGCC-------------
Fonic_010       GGTCCTCGAGACAAGTTTACAGAGCTTGCCCAGACAGCCAGGAGTGCACCACTTTCCAGGCGATCAACTTTC---------GTCGCC-------------
Fonic_012       GGTCCTCGAGACAAGTTTACAGAGCTTGCCCAGACAGCCAGGAGTGCACCACTTTCCAGGCGATCAACTTTC---------GTCGCC-------------
Focub_B2_2      GGTCCGGGAGGCGAACGTCCAGAAATTGCCCAGAGCACTGGGAGTGCACCACTTTCCAGGCGGTCAACTTTC---------GCGACC-------------
Focub_II5_2     GGTCCGGGAGGCGAACGTCCAGAAATTGCCCAGAGCACTGGGAGTGCACCACTTTCCAGGCGGTCAACTTTC---------GCGACC-------------
Fomel_001_0     GGTCCTACCGGAGAACGTCCAAGGCTTGCCCAGAGGGCCAGGAGTGCACCACTTTCCAGGCGTACAACTATC---------ATAACA---------AAAA
Fomel_001_1     CGCTCGAGCGGAGTGCGAGCACACCTTGCCCACCGCGCGAGGAGTGCTCCACTTTCCAAGCGTACAGCTTTATTACTACCGGTAACC------ATGGCAA
Fophy_KOD886    GGCTAGAGCGGCGTGCGAACAAAGCTTGCCCACCGCGCGAGGAGTGCTCCACTTTCCAAGCGTACAACTTTATTACTACCGGTCAAT------ATGGCCG
Fophy_KOD887    GGCTAGAGCGGCGTGCGAACAAAGCTTGCCCACCGCGCGAGGAGTGCTCCACTTTCCAAGCGTACAACTTTATTACTACCGGTCAAT------ATGGCCG
Fophy_KOD888    GGCTAGAGCGGCGTGCGAACAAAGCTTGCCCACCGCGCGAGGAGTGCTCCACTTTCCAAGCGTACAACTTTATTACTACCGGTCAAT------ATGGCCG
Folyc_4287      AGAGAGACAGATCAGTGACCAGAGCTTGCCCAGAGGGCCAGGAGTGCACCACTTTCAATGCGTACAACTTTC---------GTAACC---------GTCA
Folyc_002       AGAGAGACAGATCAGTGACCAGAGCTTGCCCAAAGGGCCAGGAGTGCACCACTTTCAATGCGTACAACTTTC---------GTAACC---------GTCA
Folyc_026       AGAGAGACAGATCAGTGACCAGAGCTTGCCCAAAGGGCCAGGAGTGCACCACTTTCAATGCGTACAACTTTC---------GTAACC---------GTCA
Folyc_038       AGAGAGACAGATCAGTGACCAGAGCTTGCCCAAAGGGCCAGGAGTGCACCACTTTCAATGCGTACAACTTTC---------GTAACC---------GTCA
Folyc_004       AGAGAGACAGATCAGTGACCAGAGCTTGCCCAAAGGGCCAGGAGTGCACCACTTTCAATGCGTACAACTTTC---------GTAACC---------GTCA
Folyc_029       AGAGAGACAGATCAGTGACCAGAGCTTGCCCAAAGGGCCAGGAGTGCACCACTTTCAATGCGTACAACTTTC---------GTAACC---------GTCA
Folyc_074       AGAGAGACAGATCAGTGACCAGAGCTTGCCCAAAGGGCCAGGAGTGCACCACTTTCAATGCGTACAACTTTC---------GTAACC---------GTCA
Folyc_MN25      AGAGAGACAGATCAGTGACCAGAGCTTGCCCAAAGGGCCAGGAGTGCACCACTTTCAATGCGTACAACTTTC---------GTAACC---------GTCA
Folyc_007       AGAGAGACAGATCAGTGACCAGAGCTTGCCCAGAGGGCCAGGAGTGCACCACTTTCAATGCGTACAACTTTC---------GTAACC---------GTCA
Folyc_014       AGAGAGACAGATCAGTGACCAGAGCTTGCCCAGAGGGCCAGGAGTGCACCACTTTCAATGCGTACAACTTTC---------GTAACC---------GTCA
Folyc_016       AGAGAGACAGATCAGTGACCAGAGCTTGCCCAGAGGGCCAGGAGTGCACCACTTTCAATGCGTACAACTTTC---------GTAACC---------GTCA
Folyc_018       AGAGAGACAGATCAGTGACCAGAGCTTGCCCAGAGGGCCAGGAGTGCACCACTTTCAATGCGTACAACTTTC---------GTAACC---------GTCA
Folyc_069       AGAGAGACAGATCAGTGACCAGAGCTTGCCCAGAGGGCCAGGAGTGCACCACTTTCAATGCGTACAACTTTC---------GTAACC---------GTCA
Folyc_072       AGAGAGACAGATCAGTGACCAGAGCTTGCCCAGAGGGCCAGGAGTGCACCACTTTCAATGCGTACAACTTTC---------GTAACC---------GTCA
Folyc_073       AGAGAGACAGATCAGTGACCAGAGCTTGCCCAGAGGGCCAGGAGTGCACCACTTTCAATGCGTACAACTTTC---------GTAACC---------GTCA
Folyc_075       AGAGAGACAGATCAGTGACCAGAGCTTGCCCAGAGGGCCAGGAGTGCACCACTTTCAATGCGTACAACTTTC---------GTAACC---------GTCA
Focon_5176      GGAGATCGGGCACAGTCACCAGGGCTTGCCCAGACCACCAGATATGCCAGACTTTCGAGGCGTATAACTTTC---------GTCGAT------CTGTTCA
Focon_PHW808    GGAGATCGGGCACAGTCACCAGGGCTTGCCCAGACCACCAGATATGCCAGACTTTCGAGGCGTATAACTTTC---------GTCGAT------CTGTTCA
Fopis_HDV247_1  GCGCCCGGAGGGATATAAGAAGACCTTGCCCAAACAACTGGGAGTGCACCACTTTCCAGGCAATCAACTTTC---------GTAGCC-------------
Focub_B2_1      GGTCCCGGCGGATGACGACCAGAGCTTGCCCAAGCGGCCAGCAGTGCACCACTTTCGAGGCGGTCAATTATC---------GTAGCG-------------
Focub_II5_1     GGTCCCGGCGGATGACGACCAGAGCTTGCCCAAGCGGCCAGCAGTGCACCACTTTCGAGGCGGTCAATTATC---------GTAGCG-------------
Focub_N2        GGTCAG---GCTCAATGACCAGAGCTTGCCCAAAGAACCAGGAATGCACCACTTTCGTGGCGCACAACTTTC---------GTAGCCAGTCGCGTACCAG
Focub_B2_0      GGGCAG---GCTCAGTGACCAGAACTTGCCCACAGAACCAGGAATGCACCACTTTCGTGGCGCACAACTTTC---------GTAGCCAGTCGCCTACCAC
Focub_II5_0     GGGCAG---GCTCAGTGACCAGAACTTGCCCACAGAACCAGGAATGCACCACTTTCGTGGCGCACAACTTTC---------GTAGCCAGTCGCCTACCAC
Fomln_010_0     GGTCCCAGCTCCCTATGAGCAGGGATTGCCCAGAGGGCCAGGAGTGCACCACTTTCCAGGCGGTCAACTTTC---------GTAACC-------------
Fomln_009_0     GGTCCCAGCTCCCTATGAGCAGGGATTGCCCAGAGGGCCAGGAGTGCACCACTTTCCAGGCGGTCAACTTTC---------GTAACC-------------
Fomln_011_0     GGTCCCAGCTCCCTATGAGCAGGGATTGCCCAGAGGGCCAGGAGTGCACCACTTTCCAGGCGGTCAACTTTC---------GTAACC-------------
Fopis_HDV247_0  TGTCCGAGGGGAGAATGAGAAAAGCTTGCCCACAGGGCCAGGAGTGCACCACTTTCCAGGCGGTCAACTTTC---------GTAACC-------------
Fomln_001       GGACCGTGGGGAAGGCGAACGCGCCTTGCGGAGAACATGAGGAGTGCACCACTTTCGAGGCGGTGAACTTTC---------GTCGCC-------------
Fomln_004       GGACCGTGGGGAAGGCGAACGCGCCTTGCGGAGAACATGAGGAGTGCACCACTTTCGAGGCGGTGAACTTTC---------GTCGCC-------------
Fomln_005       GGACCGTGGGGAAGGCGAACGCGCCTTGCGGAGAACATGAGGAGTGCACCACTTTCGAGGCGGTGAACTTTC---------GTCGCC-------------
Fomln_009_1     GGACCGTGGGGAAGGCGAACGCGCCTTGCGGAGAACATGAGGAGTGCACCACTTTCGAGGCGGTGAACTTTC---------GTCGCC-------------
Fomln_011_1     GGACCGTGGGGAAGGCGAACGCGCCTTGCGGAGAACATGAGGAGTGCACCACTTTCGAGGCGGTGAACTTTC---------GTCGCC-------------
Fomln_012       GGACCGTGGGGAAGGCGAACGCGCCTTGCGGAGAACATGAGGAGTGCACCACTTTCGAGGCGGTGAACTTTC---------GTCGCC-------------
Fomln_006       GGACCGTGGGGAAGGCGAACGCGCCTTGCGGAGAACATGAGGAGTGCACCACTTTCGAGGCGGTGAACTTTC---------GTCGCC-------------
Fomln_010_1     GGACCGTGGGGAAGGCGAACGCGCCTTGCGGAGAACATGAGGAGTGCACCACTTTCGAGGCGGTGAACTTTC---------GTCGCC-------------
Fomln_013       GGACCGTGGGGAAGGCGAACGCGCCTTGCGGAGAACATGAGGAGTGCACCACTTTCGAGGCGGTGAACTTTC---------GTCGCC-------------
Fomln_016       GGACCGTGGGGAAGGCGAACGCGCCTTGCGGAGAACATGAGGAGTGCACCACTTTCGAGGCGGTGAACTTTC---------GTCGCC-------------
Folag_001       TGTCCGAGGGGAGACTCAGAAAAGCTTGCCCACAGGGCACGGAGTGTACCACTTTCGAGGCGGTCAACTTTC---------GTAACC-------------
Folag_002       TGTCCGAGGGGAGACTCAGAAAAGCTTGCCCACAGGGCACGGAGTGTACCACTTTCGAGGCGGTCAACTTTC---------GTAACC-------------
Fomom_001       TGTCCGAGGGGAGACTCAGAAAAGCTTGCCCACAGGGCACGGAGTGTACCACTTTCGAGGCGGTCAACTTTC---------GTAACC-------------
Folag_004       TGTCCGAGGGGAGACTCAGAAAAGCTTGCCCACAGGGCACGGAGTGTACCACTTTCGAGGCGGTCAACTTTC---------GTAACC-------------
Folag_005       TGTCCGAGGGGAGACTCAGAAAAGCTTGCCCACAGGGCACGGAGTGTACCACTTTCGAGGCGGTCAACTTTC---------GTAACC-------------
Fomom_004       TGTCCGAGGGGAGACTCAGAAAAGCTTGCCCACAGGGCACGGAGTGTACCACTTTCGAGGCGGTCAACTTTC---------GTAACC-------------
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fp7412 rev< Folag+Fomom

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                801
Fonic_001       --GTCGGACTACTTTTCCTGGCTGTGAGCCCCGAATTGAGGTGAAGGATAGACATGAGGTAGGGAGGCACGTGGAGTAGGAGGGAGGCTGGTACCCGGAA
Fonic_003       --GTCGGACTACTTTTCCTGGCTGTGAGCCCCGAATTGAGGTGAAGGATAGACATGAGGTAGGGAGGCACGTGGAGTAGGAGGGAGGCTGGTACCCGGAA
Fonic_010       --GTCGGACTACTTTTCCTGGCTGTGAGCCCCGAATTGAGGTGAAGGATAGACATGAGGTAGGGAGGCACGTGGAGTAGGAGGGAGGCTGGTACCCGGAA
Fonic_012       --GTCGGACTACTTTTCCTGGCTGTGAGCCCCGAATTGAGGTGAAGGATAGACATGAGGTAGGGAGGCACGTGGAGTAGGAGGGAGGCTGGTACCCGGAA
Focub_B2_2      --GTCGGGCTACTTTCCCTGTCTGTGGGCCCCGAATTGAGGTGAAGGAAAGACATGATCAAGGGAGACATACGGAGTGGGAGGGAGTCTGGTACCCCGAA
Focub_II5_2     --GTCGGGCTACTTTCCCTGTCTGTGGGCCCCGAATTGAGGTGAAGGAAAGACATGATCAAGGGAGACATACGGAGTGGGAGGGAGTCTGGTACCCCGAA
Fomel_001_0     GTATGCGACTACTTTTCCTGTCTGTGGGCCCCGAATTGAGGTGAATCACAGACATGATATAGGGATAGACACGGAGTGGCAGGGAACCTGGTACACCGAA
Fomel_001_1     AAAGTCGAACACTTTTCCTGTCTGTGGGCCCCGAATTGAGGTGAAGGACAGACATGATCAAGGGAGTCACACGGAGTGGGATGGAACCTGGTACCCGGAA
Fophy_KOD886    TACGCCGCACAATTTTCCTGTCTGTGGGCACAAAATTGAGGTGAATGACAGACAGGATCAAGGGAGTCACACGGAGTGGGATGGAACCTGGTACCCCGAA
Fophy_KOD887    TACGCCGCACAATTTTCCTGTCTGTGGGCACAAAATTGAGGTGAATGACAGACAGGATCAAGGGAGTCACACGGAGTGGGATGGAACCTGGTACCCCGAA
Fophy_KOD888    TACGCCGCACAATTTTCCTGTCTGTGGGCACAAAATTGAGGTGAATGACAGACAGGATCAAGGGAGTCACACGGAGTGGGATGGAACCTGGTACCCCGAA
Folyc_4287      CCATCAGGTTACTTTTCCTGTCTGTGGGCCCCGAATTGAGGTGAAGGACAGACATGATATAGGGATACACACGGAGTGGCAGGGAACCTGGTACCCCGAA
Folyc_002       CCATCAGGTTACTTTTCCTGTCTGTGGGCCCCGAATTGAGGTGAAGGACAGACATGATATAGGGATACACACGGAGTGGCAGGGAACCTGGTACCCCGAA
Folyc_026       CCATCAGGTTACTTTTCCTGTCTGTGGGCCCCGAATTGAGGTGAAGGACAGACATGATATAGGGATACACACGGAGTGGCAGGGAACCTGGTACCCCGAA
Folyc_038       CCATCAGGTTACTTTTCCTGTCTGTGGGCCCCGAATTGAGGTGAAGGACAGACATGATATAGGGATACACACGGAGTGGCAGGGAACCTGGTACCCCGAA
Folyc_004       CCATCAGGTTACTTTTCCTGTCTGTGGGCCCCGAATTGAGGTGAAGGACAGACATGATATAGGGATACACACGGAGTGGCAGGGAACCTGGTACCCCGAA
Folyc_029       CCATCAGGTTACTTTTCCTGTCTGTGGGCCCCGAATTGAGGTGAAGGACAGACATGATATAGGGATACACACGGAGTGGCAGGGAACCTGGTACCCCGAA
Folyc_074       CCATCAGGTTACTTTTCCTGTCTGTGGGCCCCGAATTGAGGTGAAGGACAGACATGATATAGGGATACACACGGAGTGGCAGGGAACCTGGTACCCCGAA
Folyc_MN25      CCATCAGGTTACTTTTCCTGTCTGTGGGCCCCGAATTGAGGTGAAGGACAGACATGATATAGGGATACACACGGAGTGGCAGGGAACCTGGTACCCCGAA
Folyc_007       CCATCAGGTTACTTTTCCTGTCTGTGGGCCCCGAATTGAGGTGAAGGACAGACATGATATAGGGATACACACGGAGTGGCAGGGAACCTGGTACCCCGAA
Folyc_014       CCATCAGGTTACTTTTCCTGTCTGTGGGCCCCGAATTGAGGTGAAGGACAGACATGATATAGGGATACACACGGAGTGGCAGGGAACCTGGTACCCCGAA
Folyc_016       CCATCAGGTTACTTTTCCTGTCTGTGGGCCCCGAATTGAGGTGAAGGACAGACATGATATAGGGATACACACGGAGTGGCAGGGAACCTGGTACCCCGAA
Folyc_018       CCATCAGGTTACTTTTCCTGTCTGTGGGCCCCGAATTGAGGTGAAGGACAGACATGATATAGGGATACACACGGAGTGGCAGGGAACCTGGTACCCCGAA
Folyc_069       CCATCAGGTTACTTTTCCTGTCTGTGGGCCCCGAATTGAGGTGAAGGACAGACATGATATAGGGATACACACGGAGTGGCAGGGAACCTGGTACCCCGAA
Folyc_072       CCATCAGGTTACTTTTCCTGTCTGTGGGCCCCGAATTGAGGTGAAGGACAGACATGATATAGGGATACACACGGAGTGGCAGGGAACCTGGTACCCCGAA
Folyc_073       CCATCAGGTTACTTTTCCTGTCTGTGGGCCCCGAATTGAGGTGAAGGACAGACATGATATAGGGATACACACGGAGTGGCAGGGAACCTGGTACCCCGAA
Folyc_075       CCATCAGGTTACTTTTCCTGTCTGTGGGCCCCGAATTGAGGTGAAGGACAGACATGATATAGGGATACACACGGAGTGGCAGGGAACCTGGTACCCCGAA
Focon_5176      TCAAAAGGTTAATTTTTGTACCTGTGGGCCCAAAATTGAGGTGAAGGAAAGACATGATATAGGGAGGCATACGGAGTGGGAGGGAACCTGGTACCCCGAA
Focon_PHW808    TCAAAAGGTTAATTTTTGTACCTGTGGGCCCAAAATTGAGGTGAAGGAAAGACATGATATAGGGAGGCATACGGAGTGGGAGGGAACCTGGTACCCCGAA
Fopis_HDV247_1  --GTCGGGCTACTTTTCCTGTCTGTGGGCCCCGAATTAAGGTGGAGGAAAGACATGATATAGGGAGGCACACGGAGTATGAGGGAACCTGGTACCCCGAA
Focub_B2_1      --TCCGGAATATTTTTCCTGTCTGTGGGCCCCGAATTGAGGTGACGGAGAGACATGATATAGGGATTCACACGGAATGGGACGGAATCTGGTACCCTGAA
Focub_II5_1     --TCCGGAATATTTTTCCTGTCTGTGGGCCCCGAATTGAGGTGACGGAGAGACATGATATAGGGATTCACACGGAATGGGACGGAATCTGGTACCCTGAA
Focub_N2        TGACAAGTCTACTTTCCCTGTCTGTGGGCCCCGAATTGAGGTGACGGAGAGACATGATATAGGGATCCACACGGAGTGGGATGGAATCTGGTACCCCGAA
Focub_B2_0      GGACAAGTCTACTTTCCCTGTCTGTGGGCCCCGAATTGAGGTGAAGGAAAGACATGATATAGGGATCCACACGGAGTGGGATGGAATCTGGTACCCCGAA
Focub_II5_0     GGACAAGTCTACTTTCCCTGTCTGTGGGCCCCGAATTGAGGTGAAGGAAAGACATGATATAGGGATCCACACGGAGTGGGATGGAATCTGGTACCCCGAA
Fomln_010_0     --GTCGGGCTACTTTTCCTGTCTGTGGGCCCCGAATTGAGGTGAAGGACAGGCATGACGTAGGGAGGCACACGGAGTGGGAAGGAACCTGGTACCCCGAA
Fomln_009_0     --GTCGGGCTACTTTTCCTGTCTGTGGGCCCCGAATTGAGGTGAAGGACAGGCATGACGTAGGGAGGCACACGGAGTGGGAAGGAACCTGGTACCCCGAA
Fomln_011_0     --GTCGGGCTACTTTTCCTGTCTGTGGGCCCCGAATTGAGGTGAAGGACAGGCATGACGTAGGGAGGCACACGGAGTGGGAAGGAACCTGGTACCCCGAA
Fopis_HDV247_0  --GTCGGGCTACCTTTCCTGTCTGTGGGCCCCGAATTGAGGTGGAGGAAAGACATGATATAGGGAGGCACACGGAGTGGGAGGGAACCTGGTACCCCGAG
Fomln_001       --TCGCGGCTAAATTTCCTGTCTGTGGGGCCCGAATTGAGGTGACGGAAAGACATGATATAGGGAGGCACACGGAGTGGGACGGAGTCTGGTACCCCGAA
Fomln_004       --TCGCGGCTAAATTTCCTGTCTGTGGGGCCCGAATTGAGGTGACGGAAAGACATGATATAGGGAGGCACACGGAGTGGGACGGAGTCTGGTACCCCGAA
Fomln_005       --TCGCGGCTAAATTTCCTGTCTGTGGGGCCCGAATTGAGGTGACGGAAAGACATGATATAGGGAGGCACACGGAGTGGGACGGAGTCTGGTACCCCGAA
Fomln_009_1     --TCGCGGCTAAATTTCCTGTCTGTGGGGCCCGAATTGAGGTGACGGAAAGACATGATATAGGGAGGCACACGGAGTGGGACGGAGTCTGGTACCCCGAA
Fomln_011_1     --TCGCGGCTAAATTTCCTGTCTGTGGGGCCCGAATTGAGGTGACGGAAAGACATGATATAGGGAGGCACACGGAGTGGGACGGAGTCTGGTACCCCGAA
Fomln_012       --TCGCGGCTAAATTTCCTGTCTGTGGGGCCCGAATTGAGGTGACGGAAAGACATGATATAGGGAGGCACACGGAGTGGGACGGAGTCTGGTACCCCGAA
Fomln_006       --TCGCGGCTAAATTTCCTGTCTGTGGGGCCCGAATTGAGGTGACGGAAAGACATGATATAGGGAGGCACACGGAGTGGGACGGAGTCTGGTACCCCGAA
Fomln_010_1     --TCGCGGCTAAATTTCCTGTCTGTGGGGCCCGAATTGAGGTGACGGAAAGACATGATATAGGGAGGCACACGGAGTGGGACGGAGTCTGGTACCCCGAA
Fomln_013       --TCGCGGCTAAATTTCCTGTCTGTGGGGCCCGAATTGAGGTGACGGAAAGACATGATATAGGGAGGCACACGGAGTGGGACGGAGTCTGGTACCCCGAA
Fomln_016       --TCGCGGCTAAATTTCCTGTCTGTGGGGCCCGAATTGAGGTGACGGAAAGACATGATATAGGGAGGCACACGGAGTGGGACGGAGTCTGGTACCCCGAA
Folag_001       --GTCGGGCTAAGTTTCCTGTCTGTGGGCCCCGAATTGAGGTGACGGAAAGACATGATATAGGGAGGCACACGGAGTGGGACGGAGTCTGGTACCCCGAA
Folag_002       --GTCGGGCTAAGTTTCCTGTCTGTGGGCCCCGAATTGAGGTGACGGAAAGACATGATATAGGGAGGCACACGGAGTGGGACGGAGTCTGGTACCCCGAA
Fomom_001       --GTCGGGCTAAGTTTCCTGTCTGTGGGCCCCGAATTGAGGTGACGGAAAGACATGATATAGGGAGGCACACGGAGTGGGACGGAGTCTGGTACCCCGAA
Folag_004       --GTCGGGCTAAGTTTCCTGTCTGTGGGCCCCGAATTGAGGTGACGGAAAGACATGATATAGGGAGGCACACGGAGTGGGACGGAGTCTGGTACCCCGAA
Folag_005       --GTCGGGCTAAGTTTCCTGTCTGTGGGCCCCGAATTGAGGTGACGGAAAGACATGATATAGGGAGGCACACGGAGTGGGACGGAGTCTGGTACCCCGAA
Fomom_004       --GTCGGGCTAAGTTTCCTGTCTGTGGGCCCCGAATTGAGGTGACGGAAAGACATGATATAGGGAGGCACACGGAGTGGGACGGAGTCTGGTACCCCGAA
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Marker #1

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                901
Fonic_001       GCGCCTAAATCGCCTGGGACCTACGCTTCTTGCGCCCAGATGGCAGGCAGTCTCAATGCGTACTTCGACTTTTCTGGTGCTTATTTGAATGGAGAGGGGT
Fonic_003       GCGCCTAAATCGCCTGGGACCTACGCTTCTTGCGCCCAGATGGCAGGCAGTCTCAATGCGTACTTCGACTTTTCTGGTGCTTATTTGAATGGAGAGGGGT
Fonic_010       GCGCCTAAATCGCCTGGGACCTACGCTTCTTGCGCCCAGATGGCAGGCAGTCTCAATGCGTACTTCGACTTTTCTGGTGCTTATTTGAATGGAGAGGGGT
Fonic_012       GCGCCTAAATCGCCTGGGACCTACGCTTCTTGCGCCCAGATGGCAGGCAGTCTCAATGCGTACTTCGACTTTTCTGGTGCTTATTTGAATGGAGAGGGGT
Focub_B2_2      TCGCCTAAATCGCCTGGGACATATGATTCTTTCGCCCAGATGGCGGGCAGTCTCAATGGATACTTCGACTTTAGTGGTGCTTATCAGAGTGGAGAGGGCT
Focub_II5_2     TCGCCTAAATCGCCTGGGACATATGATTCTTTCGCCCAGATGGCGGGCAGTCTCAATGGATACTTCGACTTTAGTGGTGCTTATCAGAGTGGAGAGGGCT
Fomel_001_0     TCGCCTAAATCGCCTGGGACCTACGACTTTTTCGCCCAGATGGCGGGCGGTGTCAAGGCGTACTTCGACTTTGATGGTGTTTATTCTGATGGAGGGACGA
Fomel_001_1     TCTCCTAAATCGCCTGGGACCTACGATTCTTTCGTCCAGATGGCGGGCAGTCTCGATGCGTACTTCAACTTTGATGGTGTTTATTCTGATGGAAGGACGA
Fophy_KOD886    GAGCCTAAATCGCCTGGGACCTACGATTCTTTCGTCCAGATGGCGGGCAGTCTCAATGCGTACTTCAACTTTGATGGTGTTTATTCTGATGGAGAGACGA
Fophy_KOD887    GAGCCTAAATCGCCTGGGACCTACGATTCTTTCGTCCAGATGGCGGGCAGTCTCAATGCGTACTTCAACTTTGATGGTGTTTATTCTGATGGAGAGACGA
Fophy_KOD888    GAGCCTAAATCGCCTGGGACCTACGATTCTTTCGTCCAGATGGCGGGCAGTCTCAATGCGTACTTCAACTTTGATGGTGTTTATTCTGATGGAGAGACGA
Folyc_4287      TCGCCTAAATCGCCTGGGACCTACGATTATTTCGCCCAGATGGCGGGCACTCTCAATGGGTACTTCGGGTATGACGGTGTTTATTCGGATGGATATAAGA
Folyc_002       TCGCCTAAATCGCCTGGGACCTACGATTATTTCGCCCAGATGGCGGGCACTCTCAATGGGTACTTCGGGTATGACGGTGTTTATTCGGATGGATATAAGA
Folyc_026       TCGCCTAAATCGCCTGGGACCTACGATTATTTCGCCCAGATGGCGGGCACTCTCAATGGGTACTTCGGGTATGACGGTGTTTATTCGGATGGATATAAGA
Folyc_038       TCGCCTAAATCGCCTGGGACCTACGATTATTTCGCCCAGATGGCGGGCACTCTCAATGGGTACTTCGGGTATGACGGTGTTTATTCGGATGGATATAAGA
Folyc_004       TCGCCTAAATCGCCTGGGACCTACGATTATTTCGCCCAGATGGCGGGCACTCTCAATGGGTACTTCGGGTATGACGGTGTTTATTCGGATGGATATAAGA
Folyc_029       TCGCCTAAATCGCCTGGGACCTACGATTATTTCGCCCAGATGGCGGGCACTCTCAATGGGTACTTCGGGTATGACGGTGTTTATTCGGATGGATATAAGA
Folyc_074       TCGCCTAAATCGCCTGGGACCTACGATTATTTCGCCCAGATGGCGGGCACTCTCAATGGGTACTTCGGGTATGACGGTGTTTATTCGGATGGATATAAGA
Folyc_MN25      TCGCCTAAATCGCCTGGGACCTACGATTATTTCGCCCAGATGGCGGGCACTCTCAATGGGTACTTCGGGTATGACGGTGTTTATTCGGATGGATATAAGA
Folyc_007       TCGCCTAAATCGCCTGGGACCTACGATTATTTCGCCCAGATGGCGGGCACTCTCAATGGGTACTTCGGGTATGACGGTGTTTATTCGGATGGATATAAGA
Folyc_014       TCGCCTAAATCGCCTGGGACCTACGATTATTTCGCCCAGATGGCGGGCACTCTCAATGGGTACTTCGGGTATGACGGTGTTTATTCGGATGGATATAAGA
Folyc_016       TCGCCTAAATCGCCTGGGACCTACGATTATTTCGCCCAGATGGCGGGCACTCTCAATGGGTACTTCGGGTATGACGGTGTTTATTCGGATGGATATAAGA
Folyc_018       TCGCCTAAATCGCCTGGGACCTACGATTATTTCGCCCAGATGGCGGGCACTCTCAATGGGTACTTCGGGTATGACGGTGTTTATTCGGATGGATATAAGA
Folyc_069       TCGCCTAAATCGCCTGGGACCTACGATTATTTCGCCCAGATGGCGGGCACTCTCAATGGGTACTTCGGGTATGACGGTGTTTATTCGGATGGATATAAGA
Folyc_072       TCGCCTAAATCGCCTGGGACCTACGATTATTTCGCCCAGATGGCGGGCACTCTCAATGGGTACTTCGGGTATGACGGTGTTTATTCGGATGGATATAAGA
Folyc_073       TCGCCTAAATCGCCTGGGACCTACGATTATTTCGCCCAGATGGCGGGCACTCTCAATGGGTACTTCGGGTATGACGGTGTTTATTCGGATGGATATAAGA
Folyc_075       TCGCCTAAATCGCCTGGGACCTACGATTATTTCGCCCAGATGGCGGGCACTCTCAATGGGTACTTCGGGTATGACGGTGTTTATTCGGATGGATATAAGA
Focon_5176      TCGCCTAAATCGCCTGGGACCTACGATTCTTTTGCCCAGATGGCGGGCAGTCTCAATGGGTACTTCGACTTTCATGGTGTTTATTCGAGTGGAGAGGGGA
Focon_PHW808    TCGCCTAAATCGCCTGGGACCTACGATTCTTTTGCCCAGATGGCGGGCAGTCTCAATGGGTACTTCGACTTTCATGGTGTTTATTCGAGTGGAGAGGGGA
Fopis_HDV247_1  TCGCCTAAAACGCCTGGATATTACAATGATTTTGCCGCGCTGTCGGGCACACAGAATGCAAACTTCGACTTTACTGGTGTTTATTCGGATGGACAAACGA
Focub_B2_1      TCGCCTAAATCGCCTGGGACCTACGATTCTTTCGCCCAGATGGCGGGCAGTCTCAATGGGTACTTCAACTTTGATGGTGCTTATTCGAATGGAGAGGGGA
Focub_II5_1     TCGCCTAAATCGCCTGGGACCTACGATTCTTTCGCCCAGATGGCGGGCAGTCTCAATGGGTACTTCAACTTTGATGGTGCTTATTCGAATGGAGAGGGGA
Focub_N2        TCGCCTAAATCGCCTGGGACCTACGATTCTTTCGCCCAGATGGCGGGCAGTCTCAATGGGTACTTCGACTTTAGTGGTGCTTATCAGAGTGGAGAGGGGT
Focub_B2_0      TCGCCTAAATCGCCTGGGACCTACGATTCTTTCGCCCAGATGGCGGGCAGTCTTAATGGGTACTTCGACTTTGATGGTGCTTATCAAAGTGGAGAGGGCT
Focub_II5_0     TCGCCTAAATCGCCTGGGACCTACGATTCTTTCGCCCAGATGGCGGGCAGTCTTAATGGGTACTTCGACTTTGATGGTGCTTATCAAAGTGGAGAGGGCT
Fomln_010_0     TCGCCTAAATCGCCTGGCACTTACGATTCTTTCGCACAGATGGCGGGCAGTCTCAATGGGTACTTCGACTTTAATGGTGTTTATTCGAATGGAGAGGGGA
Fomln_009_0     TCGCCTAAATCGCCTGGCACTTACGATTCTTTCGCACAGATGGCGGGCAGTCTCAATGGGTACTTCGACTTTAATGGTGTTTATTCGAATGGAGAGGGGA
Fomln_011_0     TCGCCTAAATCGCCTGGCACTTACGATTCTTTCGCACAGATGGCGGGCAGTCTCAATGGGTACTTCGACTTTAATGGTGTTTATTCGAATGGAGAGGGGA
Fopis_HDV247_0  TCGCCTAAATCGCCTGGAACCTACGATTCTTTCGCCCAGATGGCGGGCAGTCTCAATGGGTACTTCGACTTTAATGGTGTTTATTCGAGTGGAGAGGGGA
Fomln_001       TCGCCTAAATCGCCTGGGACCTACGATTCTTTCGCCCAGATGGCGGGCAGTCTCAATGGGTTCTTCGACTTTAATGGTGTTTATTCGAGTGGAGAGGGGA
Fomln_004       TCGCCTAAATCGCCTGGGACCTACGATTCTTTCGCCCAGATGGCGGGCAGTCTCAATGGGTTCTTCGACTTTAATGGTGTTTATTCGAGTGGAGAGGGGA
Fomln_005       TCGCCTAAATCGCCTGGGACCTACGATTCTTTCGCCCAGATGGCGGGCAGTCTCAATGGGTTCTTCGACTTTAATGGTGTTTATTCGAGTGGAGAGGGGA
Fomln_009_1     TCGCCTAAATCGCCTGGGACCTACGATTCTTTCGCCCAGATGGCGGGCAGTCTCAATGGGTTCTTCGACTTTAATGGTGTTTATTCGAGTGGAGAGGGGA
Fomln_011_1     TCGCCTAAATCGCCTGGGACCTACGATTCTTTCGCCCAGATGGCGGGCAGTCTCAATGGGTTCTTCGACTTTAATGGTGTTTATTCGAGTGGAGAGGGGA
Fomln_012       TCGCCTAAATCGCCTGGGACCTACGATTCTTTCGCCCAGATGGCGGGCAGTCTCAATGGGTTCTTCGACTTTAATGGTGTTTATTCGAGTGGAGAGGGGA
Fomln_006       TCGCCTAAATCGCCTGGGACCTACGATTCTTTCGCCCAGATGGCGGGCAGTCTCAATGGGTTCTTCGACTTTAATGGTGTTTATTCGAGTGGAGAGGGGA
Fomln_010_1     TCGCCTAAATCGCCTGGGACCTACGATTCTTTCGCCCAGATGGCGGGCAGTCTCAATGGGTTCTTCGACTTTAATGGTGTTTATTCGAGTGGAGAGGGGA
Fomln_013       TCGCCTAAATCGCCTGGGACCTACGATTCTTTCGCCCAGATGGCGGGCAGTCTCAATGGGTTCTTCGACTTTAATGGTGTTTATTCGAGTGGAGAGGGGA
Fomln_016       TCGCCTAAATCGCCTGGGACCTACGATTCTTTCGCCCAGATGGCGGGCAGTCTCAATGGGTTCTTCGACTTTAATGGTGTTTATTCGAGTGGAGAGGGGA
Folag_001       TCGCCTAAATCGCCTGGGACCTACGATTCTTTCGCCCAGATGGCGGGCAGTCTCAATGGGTTCTTCGACTTTAATGGTGTTTATTCGAGTGGAGAGGGGA
Folag_002       TCGCCTAAATCGCCTGGGACCTACGATTCTTTCGCCCAGATGGCGGGCAGTCTCAATGGGTTCTTCGACTTTAATGGTGTTTATTCGAGTGGAGAGGGGA
Fomom_001       TCGCCTAAATCGCCTGGGACCTACGATTCTTTCGCCCAGATGGCGGGCAGTCTCAATGGGTTCTTCGACTTTAATGGTGTTTATTCGAGTGGAGAGGGGA
Folag_004       TCGCCTAAATCGCCTGGGACCTACGATTCTTTCGCCCAGATGGCGGGCAGTCTCAATGGGTTCTTCGACTTTAATGGTGTTTATTCGAGTGGAGAGGGGA
Folag_005       TCGCCTAAATCGCCTGGGACCTACGATTCTTTCGCCCAGATGGCGGGCAGTCTCAATGGGTTCTTCGACTTTAATGGTGTTTATTCGAGTGGAGAGGGGA
Fomom_004       TCGCCTAAATCGCCTGGGACCTACGATTCTTTCGCCCAGATGGCGGGCAGTCTCAATGGGTTCTTCGACTTTAATGGTGTTTATTCGAGTGGAGAGGGGA

               1001
Fonic_001       TCAG--CTAGGGGAAATGGACACTCATGATCATGCATTGATTGCCCGGGAGGCAAGCTGACTATCACTAGCACAGAACGCGCGACTTGGGCGATTGGATA
Fonic_003       TCAG--CTAGGGGAAATGGACACTCATGATCATGCATTGATTGCCCGGGAGGCAAGCTGACTATCACTAGCACAGAACGCGCGACTTGGGCGATTGGATA
Fonic_010       TCAG--CTAGGGGAAATGGACACTCATGATCATGCATTGATTGCCCGGGAGGCAAGCTGACTATCACTAGCACAGAACGCGCGACTTGGGCGATTGGATA
Fonic_012       TCAG--CTAGGGGAAATGGACACTCATGATCATGCATTGATTGCCCGGGAGGCAAGCTGACTATCACTAGCACAGAACGCGCGACTTGGGCGATTGGATA
Focub_B2_2      TCAGCTCTCGGGGAAGTGGACACTCGTGGTCATGCATTGGCTGCCCGGGGGGCAAGTTGACTATCACTAGCACGGATCGTGCAACTTGGGCGGTTGGATA
Focub_II5_2     TCAGCTCTCGGGGAAGTGGACACTCGTGGTCATGCATTGGCTGCCCGGGGGGCAAGTTGACTATCACTAGCACGGATCGTGCAACTTGGGCGGTTGGATA
Fomel_001_0     TGAACTCTCGGGGACATGGAGCCTCATGGTCATGCATTGCTTGCCCGGGAGGCAAGCTGATTATCACAAGCCCATATCGCCCTACTTGGGCGTTTGGATA
Fomel_001_1     TGAACTCTCGGGGACATGGAGCCTCATGGTCATGCCTTTTTTGCCCGGGAGGCAAGCTGACCATCACTAGCACGTATCGCCCAACTTGGGCGGTTGGATA
Fophy_KOD886    TGAACTCTCGGGGACATGCAGTCTCATGGTCATGCCTTAATTGCCCGGGAGGCAAGCTGACTATCACTAACACGTATCGCCGAACTTGGGCGGTTGGATA
Fophy_KOD887    TGAACTCTCGGGGACATGCAGTCTCATGGTCATGCCTTAATTGCCCGGGAGGCAAGCTGACTATCACTAACACGTATCGCCGAACTTGGGCGGTTGGATA
Fophy_KOD888    TGAACTCTCGGGGACATGCAGTCTCATGGTCATGCCTTAATTGCCCGGGAGGCAAGCTGACTATCACTAACACGTATCGCCGAACTTGGGCGGTTGGATA
Folyc_4287      CGAGCTCTCACGGATATGGACATTCATGGTCATGCATTAATTGCCCGAGAGGCAAGGTGACTATCACAAACACATATCGCGCAACTTGGGCGTTTGGATA
Folyc_002       CGAGCTCTCACGGATATGGACATTCATGGTCATGCATTAATTGCCCGAGAGGCAAGGTGACTATCACAAACACATATCGCGCAACTTGGGCGTTTGGATA
Folyc_026       CGAGCTCTCACGGATATGGACATTCATGGTCATGCATTAATTGCCCGAGAGGCAAGGTGACTATCACAAACACATATCGCGCAACTTGGGCGTTTGGATA
Folyc_038       CGAGCTCTCACGGATATGGACATTCATGGTCATGCATTAATTGCCCGAGAGGCAAGGTGACTATCACAAACACATATCGCGCAACTTGGGCGTTTGGATA
Folyc_004       CGAGCTCTCACGGATATGGACATTCATGGTCATGCATTAATTGCCCGAGAGGCAAGGTGACTATCACAAACACATATCGCGCAACTTGGGCGTTTGGATA
Folyc_029       CGAGCTCTCACGGATATGGACATTCATGGTCATGCATTAATTGCCCGAGAGGCAAGGTGACTATCACAAACACATATCGCGCAACTTGGGCGTTTGGATA
Folyc_074       CGAGCTCTCACGGATATGGACATTCATGGTCATGCATTAATTGCCCGAGAGGCAAGGTGACTATCACAAACACATATCGCGCAACTTGGGCGTTTGGATA
Folyc_MN25      CGAGCTCTCACGGATATGGACATTCATGGTCATGCATTAATTGCCCGAGAGGCAAGGTGACTATCACAAACACATATCGCGCAACTTGGGCGTTTGGATA
Folyc_007       CGAGCTCTCACGGATATGGACATTCATGGTCATGCATTAATTGCCCGAGAGGCAAGGTGACTATCACAAACACATATCGCGCAACTTGGGCGTTTGGATA
Folyc_014       CGAGCTCTCACGGATATGGACATTCATGGTCATGCATTAATTGCCCGAGAGGCAAGGTGACTATCACAAACACATATCGCGCAACTTGGGCGTTTGGATA
Folyc_016       CGAGCTCTCACGGATATGGACATTCATGGTCATGCATTAATTGCCCGAGAGGCAAGGTGACTATCACAAACACATATCGCGCAACTTGGGCGTTTGGATA
Folyc_018       CGAGCTCTCACGGATATGGACATTCATGGTCATGCATTAATTGCCCGAGAGGCAAGGTGACTATCACAAACACATATCGCGCAACTTGGGCGTTTGGATA
Folyc_069       CGAGCTCTCACGGATATGGACATTCATGGTCATGCATTAATTGCCCGAGAGGCAAGGTGACTATCACAAACACATATCGCGCAACTTGGGCGTTTGGATA
Folyc_072       CGAGCTCTCACGGATATGGACATTCATGGTCATGCATTAATTGCCCGAGAGGCAAGGTGACTATCACAAACACATATCGCGCAACTTGGGCGTTTGGATA
Folyc_073       CGAGCTCTCACGGATATGGACATTCATGGTCATGCATTAATTGCCCGAGAGGCAAGGTGACTATCACAAACACATATCGCGCAACTTGGGCGTTTGGATA
Folyc_075       CGAGCTCTCACGGATATGGACATTCATGGTCATGCATTAATTGCCCGAGAGGCAAGGTGACTATCACAAACACATATCGCGCAACTTGGGCGTTTGGATA
Focon_5176      TGAGCTCTCGGGGAAATGGACACTCATGGGCATGCATTAATTGCCCGGGAGGCAAGCTGACTATCACCAACACATATCGCCCAACTTGGGCGTTAGGATA
Focon_PHW808    TGAGCTCTCGGGGAAATGGACACTCATGGGCATGCATTAATTGCCCGGGAGGCAAGCTGACTATCACCAACACATATCGCCCAACTTGGGCGTTAGGATA
Fopis_HDV247_1  TGCATTCTAGGGGATATGCACGCTCATGGTCATGCATTGAATGCCCGGGAGGCAAGCTGACTATCACTAGCACAGCTGGCAGAACTTGGGCGATTGGATA
Focub_B2_1      TGAGCTCTCGGGGAAGTGGACACTCGTGGTCATGCATTGCTTGCCCGGGAGGCAAGCTGACTATCACTAGCACAGATCGCGCAACTTGGGCGATTGGATA
Focub_II5_1     TGAGCTCTCGGGGAAGTGGACACTCGTGGTCATGCATTGCTTGCCCGGGAGGCAAGCTGACTATCACTAGCACAGATCGCGCAACTTGGGCGATTGGATA
Focub_N2        TCAGCTCTCGGGGAAGTGGACACTCGTGGTCATGCATTGCTTGCCCGGGCGGCAAGCTGACTATTACTAGCACCAATCGCCCAACTTGGGCGATTGGATA
Focub_B2_0      TCAGCTCTCGGGGAAGTGGACACTCGTGGTCATGCATTAATTGCCCGGGAGGCAAGCTGACTATCACTAGCACGGTTCGCGCAACTTGGGCAATTGGATA
Focub_II5_0     TCAGCTCTCGGGGAAGTGGACACTCGTGGTCATGCATTAATTGCCCGGGAGGCAAGCTGACTATCACTAGCACGGTTCGCGCAACTTGGGCAATTGGATA
Fomln_010_0     TGAGCTCTCGAGGAAATGGACACTCATGGTCATGCATTGGTTGCCCGGGAGGCAAGCTGACTATCACTAGCACACAACGCGCAACTTGGGCGATTGGATA
Fomln_009_0     TGAGCTCTCGAGGAAATGGACACTCATGGTCATGCATTGGTTGCCCGGGAGGCAAGCTGACTATCACTAGCACACAACGCGCAACTTGGGCGATTGGATA
Fomln_011_0     TGAGCTCTCGAGGAAATGGACACTCATGGTCATGCATTGGTTGCCCGGGAGGCAAGCTGACTATCACTAGCACACAACGCGCAACTTGGGCGATTGGATA
Fopis_HDV247_0  TGAGCTCTCGGGGAAATGGACACTCATGGTCATGCATTGATTGCCCGGGAGGCAAGCTGACTATCACTAGCACAGATCGCGCAACTTGGGCGGTTGGATA
Fomln_001       TGAGCTCTCGGGGAAATGGACACTCATGGTCATGCATTAATTGCCCGGGAGGCAAGCTGACTATCACTAGCACCAATCGCGCAACTTGGGCGATTGGATA
Fomln_004       TGAGCTCTCGGGGAAATGGACACTCATGGTCATGCATTAATTGCCCGGGAGGCAAGCTGACTATCACTAGCACCAATCGCGCAACTTGGGCGATTGGATA
Fomln_005       TGAGCTCTCGGGGAAATGGACACTCATGGTCATGCATTAATTGCCCGGGAGGCAAGCTGACTATCACTAGCACCAATCGCGCAACTTGGGCGATTGGATA
Fomln_009_1     TGAGCTCTCGGGGAAATGGACACTCATGGTCATGCATTAATTGCCCGGGAGGCAAGCTGACTATCACTAGCACCAATCGCGCAACTTGGGCGATTGGATA
Fomln_011_1     TGAGCTCTCGGGGAAATGGACACTCATGGTCATGCATTAATTGCCCGGGAGGCAAGCTGACTATCACTAGCACCAATCGCGCAACTTGGGCGATTGGATA
Fomln_012       TGAGCTCTCGGGGAAATGGACACTCATGGTCATGCATTAATTGCCCGGGAGGCAAGCTGACTATCACTAGCACCAATCGCGCAACTTGGGCGATTGGATA
Fomln_006       TGAGCTCTCGGGGAAATGGACACTCATGGTCATGCATTAATTGCCCGGGAGGCAAGCTGACTATCACTAGCACCAATCGCGCAACTTGGGCGATTGGATA
Fomln_010_1     TGAGCTCTCGGGGAAATGGACACTCATGGTCATGCATTAATTGCCCGGGAGGCAAGCTGACTATCACTAGCACCAATCGCGCAACTTGGGCGATTGGATA
Fomln_013       TGAGCTCTCGGGGAAATGGACACTCATGGTCATGCATTAATTGCCCGGGAGGCAAGCTGACTATCACTAGCACCAATCGCGCAACTTGGGCGATTGGATA
Fomln_016       TGAGCTCTCGGGGAAATGGACACTCATGGTCATGCATTAATTGCCCGGGAGGCAAGCTGACTATCACTAGCACCAATCGCGCAACTTGGGCGATTGGATA
Folag_001       TGAGCTCTCGGGGAAATGGACACTCATGGTCATGCATTAATTGCCCGGGGGGCAAGCTGACTATCACTAGCACCGATCGCGCAACTTGGGCGATTGGATA
Folag_002       TGAGCTCTCGGGGAAATGGACACTCATGGTCATGCATTAATTGCCCGGGGGGCAAGCTGACTATCACTAGCACCGATCGCGCAACTTGGGCGATTGGATA
Fomom_001       TGAGCTCTCGGGGAAATGGACACTCATGGTCATGCATTAATTGCCCGGGGGGCAAGCTGACTATCACTAGCACCGATCGCGCAACTTGGGCGATTGGATA
Folag_004       TGAGCTCTCGGGGAAATGGACACTCATGGTCATGCATTAATTGCCCGGGGGGCAAGCTGACTATCACTAGCACCGATCGCGCAACTTGGGCGATTGGATA
Folag_005       TGAGCTCTCGGGGAAATGGACACTCATGGTCATGCATTAATTGCCCGGGGGGCAAGCTGACTATCACTAGCACCGATCGCGCAACTTGGGCGATTGGATA
Fomom_004       TGAGCTCTCGGGGAAATGGACACTCATGGTCATGCATTAATTGCCCGGGGGGCAAGCTGACTATCACTAGCACCGATCGCGCAACTTGGGCGATTGGATA
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Marker #1

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                1101
Fonic_001       TACCAGCC---------CCCACTAAGTTACGATCTAAAGCCCTCCTAAACACTAA------------TTTCTCTATTTCGATTCACAGCCATTCATT--C
Fonic_003       TACCAGCC---------CCCACTAAGTTACGATCTAAAGCCCTCCTAAACACTAA------------TTTCTCTATTTCGATTCACAGCCATTCATT--C
Fonic_010       TACCAGCC---------CCCACTAAGTTACGATCTAAAGCCCTCCTAAACACTAA------------TTTCTCTATTTCGATTCACAGCCATTCATT--C
Fonic_012       TACCAGCC---------CCCACTAAGTTACGATCTAAAGCCCTCCTAAACACTAA------------TTTCTCTATTTCGATTCACAGCCATTCATT--C
Focub_B2_2      TACCAGCC---------CCCACTAAGTCGCGATCCAAAGCCCTCC-AAACACTAC------------GCTCCCTATTTCTATTCACAGCCATTCATTCAC
Focub_II5_2     TACCAGCC---------CCCACTAAGTCGCGATCCAAAGCCCTCC-AAACACTAC------------GCTCCCTATTTCTATTCACAGCCATTCATTCAC
Fomel_001_0     TACCAGCC---------CCCACTAAGTTGCGATCCAAAGCCCTCC-AAGCACTACAGACATTTTCAGGTTCACTTTCCCAATAAATGTTTGTAACTT--T
Fomel_001_1     TACCCACC---------CCATCTAAGTTGCGATCCAAATCCCTCC-AAACATTAT------------TTTCTCTATTTCGATTCACAGCCATTCATT--T
Fophy_KOD886    TTCCCACA---------CCGTCTAAGTTGCGATCCAAAGCCCTCC-GAACATTAT------------CTTCTCTATTTCGATTCACAGCCATTCATT--T
Fophy_KOD887    TTCCCACA---------CCGTCTAAGTTGCGATCCAAAGCCCTCC-GAACATTAT------------CTTCTCTATTTCGATTCACAGCCATTCATT--T
Fophy_KOD888    TTCCCACA---------CCGTCTAAGTTGCGATCCAAAGCCCTCC-GAACATTAT------------CTTCTCTATTTCGATTCACAGCCATTCATT--T
Folyc_4287      TACCAGCC---------CACACTAAGTTGCGATCCAAAGCCCTCC-AAACACTAC------------TTTCTCTATTTCAATTCACAGCCATTCATT--T
Folyc_002       TACCAGCC---------CACACTAAGTTGCGATCCAAAGCCCTCC-AAACACTAC------------TTTCTCTATTTCAATTCACAGCCATTCATT--T
Folyc_026       TACCAGCC---------CACACTAAGTTGCGATCCAAAGCCCTCC-AAACACTAC------------TTTCTCTATTTCAATTCACAGCCATTCATT--T
Folyc_038       TACCAGCC---------CACACTAAGTTGCGATCCAAAGCCCTCC-AAACACTAC------------TTTCTCTATTTCAATTCACAGCCATTCATT--T
Folyc_004       TACCAGCC---------CACACTAAGTTGCGATCCAAAGCCCTCC-AAACACTAC------------TTTCTCTATTTCAATTCACAGCCATTCATT--T
Folyc_029       TACCAGCC---------CACACTAAGTTGCGATCCAAAGCCCTCC-AAACACTAC------------TTTCTCTATTTCAATTCACAGCCATTCATT--T
Folyc_074       TACCAGCC---------CACACTAAGTTGCGATCCAAAGCCCTCC-AAACACTAC------------TTTCTCTATTTCAATTCACAGCCATTCATT--T
Folyc_MN25      TACCAGCC---------CACACTAAGTTGCGATCCAAAGCCCTCC-AAACACTAC------------TTTCTCTATTTCAATTCACAGCCATTCATT--T
Folyc_007       TACCAGCC---------CACACTAAGTTGCGATCCAAAGCCCTCC-AAACACTAC------------TTTCTCTATTTCAATTCACAGCCATTCATT--T
Folyc_014       TACCAGCC---------CACACTAAGTTGCGATCCAAAGCCCTCC-AAACACTAC------------TTTCTCTATTTCAATTCACAGCCATTCATT--T
Folyc_016       TACCAGCC---------CACACTAAGTTGCGATCCAAAGCCCTCC-AAACACTAC------------TTTCTCTATTTCAATTCACAGCCATTCATT--T
Folyc_018       TACCAGCC---------CACACTAAGTTGCGATCCAAAGCCCTCC-AAACACTAC------------TTTCTCTATTTCAATTCACAGCCATTCATT--T
Folyc_069       TACCAGCC---------CACACTAAGTTGCGATCCAAAGCCCTCC-AAACACTAC------------TTTCTCTATTTCAATTCACAGCCATTCATT--T
Folyc_072       TACCAGCC---------CACACTAAGTTGCGATCCAAAGCCCTCC-AAACACTAC------------TTTCTCTATTTCAATTCACAGCCATTCATT--T
Folyc_073       TACCAGCC---------CACACTAAGTTGCGATCCAAAGCCCTCC-AAACACTAC------------TTTCTCTATTTCAATTCACAGCCATTCATT--T
Folyc_075       TACCAGCC---------CACACTAAGTTGCGATCCAAAGCCCTCC-AAACACTAC------------TTTCTCTATTTCAATTCACAGCCATTCATT--T
Focon_5176      TACCAGCCCCTATGTCCCCTACTAAGTTGCGATCCAAAGCCCTCC-AAACACTAC------------TTTTTCTATTTCGATTCACAGCCATTCATT--T
Focon_PHW808    TACCAGCCCCTATGTCCCCTACTAAGTTGCGATCCAAAGCCCTCC-AAACACTAC------------TTTTTCTATTTCGATTCACAGCCATTCATT--T
Fopis_HDV247_1  TACCAGCC---------CCAACTAAGTTGCGATCCAAAGCCCTCC-AAACACTAC------------CTTCTCTTTTTCGATTCACAGCCATTCATT--C
Focub_B2_1      TACCAGCC---------CCCACTAAGTTGCGCTCTAAAGCCCTCC-AAATACTAC------------TTTCTGTATTTCGATTCAAAGTCATTCATT--T
Focub_II5_1     TACCAGCC---------CCCACTAAGTTGCGCTCTAAAGCCCTCC-AAATACTAC------------TTTCTGTATTTCGATTCAAAGTCATTCATT--T
Focub_N2        TACCAGCC---------CCCACTGAGTTGCGGTCCAAAGCCTCCT--AACACTAT------------TTTCTCTATTTCGATTCGCAGCCATTCATT--T
Focub_B2_0      TACCAGCC---------CCCACTAAGTCGCGGTCTAAAGCCCTCC-AAACACTAC------------TTTCTCTATTTCGATTCACGGCCATTCATT--T
Focub_II5_0     TACCAGCC---------CCCACTAAGTCGCGGTCTAAAGCCCTCC-AAACACTAC------------TTTCTCTATTTCGATTCACGGCCATTCATT--T
Fomln_010_0     TACCAGCC---------CCCACTAAGTTGCGATCCAAAGCCCTCC-AAACACTAC------------TTTCTCTATTTCGATTCACAGCCATTCATT--T
Fomln_009_0     TACCAGCC---------CCCACTAAGTTGCGATCCAAAGCCCTCC-AAACACTAC------------TTTCTCTATTTCGATTCACAGCCATTCATT--T
Fomln_011_0     TACCAGCC---------CCCACTAAGTTGCGATCCAAAGCCCTCC-AAACACTAC------------TTTCTCTATTTCGATTCACAGCCATTCATT--T
Fopis_HDV247_0  TACCAGCC---------CCCACTAAGTTGCGATCCAAAGCCCTCC-AAACACTAC------------TTTCTCTGTTTCGATTCACAGCCATTCATT--T
Fomln_001       TACCAGCCCCTTCGTCGCCTACTAAGTTGCGATCCAAAGCCCTCC-AATCACTAC------------TTTCTCTATTTCGATTCACAGCCATTCATT--T
Fomln_004       TACCAGCCCCTTCGTCGCCTACTAAGTTGCGATCCAAAGCCCTCC-AATCACTAC------------TTTCTCTATTTCGATTCACAGCCATTCATT--T
Fomln_005       TACCAGCCCCTTCGTCGCCTACTAAGTTGCGATCCAAAGCCCTCC-AATCACTAC------------TTTCTCTATTTCGATTCACAGCCATTCATT--T
Fomln_009_1     TACCAGCCCCTTCGTCGCCTACTAAGTTGCGATCCAAAGCCCTCC-AATCACTAC------------TTTCTCTATTTCGATTCACAGCCATTCATT--T
Fomln_011_1     TACCAGCCCCTTCGTCGCCTACTAAGTTGCGATCCAAAGCCCTCC-AATCACTAC------------TTTCTCTATTTCGATTCACAGCCATTCATT--T
Fomln_012       TACCAGCCCCTTCGTCGCCTACTAAGTTGCGATCCAAAGCCCTCC-AATCACTAC------------TTTCTCTATTTCGATTCACAGCCATTCATT--T
Fomln_006       TACCAGCCCCTTCGTCGCCTACTAAGTTGCGATCCAAAGCCCTCC-AATCACTAC------------TTTCTCTATTTCGATTCACAGCCATTCATT--T
Fomln_010_1     TACCAGCCCCTTCGTCGCCTACTAAGTTGCGATCCAAAGCCCTCC-AATCACTAC------------TTTCTCTATTTCGATTCACAGCCATTCATT--T
Fomln_013       TACCAGCCCCTTCGTCGCCTACTAAGTTGCGATCCAAAGCCCTCC-AATCACTAC------------TTTCTCTATTTCGATTCACAGCCATTCATT--T
Fomln_016       TACCAGCCCCTTCGTCGCCTACTAAGTTGCGATCCAAAGCCCTCC-AATCACTAC------------TTTCTCTATTTCGATTCACAGCCATTCATT--T
Folag_001       TACCAGCCCCTTCGTCGCCTACTAAGTTGCGATCCAAAGCCCTCC-AATCACTAC------------TTTCTCTATTTCGATTCACAGCCATTCATT--T
Folag_002       TACCAGCCCCTTCGTCGCCTACTAAGTTGCGATCCAAAGCCCTCC-AATCACTAC------------TTTCTCTATTTCGATTCACAGCCATTCATT--T
Fomom_001       TACCAGCCCCTTCGTCGCCTACTAAGTTGCGATCCAAAGCCCTCC-AATCACTAC------------TTTCTCTATTTCGATTCACAGCCATTCATT--T
Folag_004       TACCAGCCCCTTCGTCGCCTACTAAGTTGCGATCCAAAGCCCTCC-AATCACTAC------------TTTCTCTATTTCGATTCACAGCCATTCATT--T
Folag_005       TACCAGCCCCTTCGTCGCCTACTAAGTTGCGATCCAAAGCCCTCC-AATCACTAC------------TTTCTCTATTTCGATTCACAGCCATTCATT--T
Fomom_004       TACCAGCCCCTTCGTCGCCTACTAAGTTGCGATCCAAAGCCCTCC-AATCACTAC------------TTTCTCTATTTCGATTCACAGCCATTCATT--T

                1201
Fonic_001       TCTAT-------CAGGGTTGGGTA--TATTCACCAATGCTGGATCGTGCCGCCGACGTGTCTGTGGTTGATTGACTTTTCTTGTTCTAGGTATAAAAT--
Fonic_003       TCTAT-------CAGGGTTGGGTA--TATTCACCAATGCTGGATCGTGCCGCCGACGTGTCTGTGGTTGATTGACTTTTCTTGTTCTAGGTATAAAA---
Fonic_010       TCTAT-------CAGGGTTGGGTA--TATTCACCAATGCTGGATCGTGCCGCCGACGTGTCTGTGGTTGATTGACTTTTCTTGTTCTAGGTATAAAA---
Fonic_012       TCTAT-------CAGGGTTGGGTA--TATTCACCAATGCTGGATCGTGCCGCCGACGTGTCTGTGGTTGATTGACTTTTCTTGTTCTAGGTATAAAA---
Focub_B2_2      ACTAT-------CAGCCTAGAGGCAGTATTCAAC-ATACT-------------------------TAACTTGAAAGCTCTA--TTTAAGAATAACAATA
Focub_II5_2     ACTAT-------CAGCCTAGAGGCAGTATTCAAC-ATACT-------------------------TAACTTGAAAGCTCTA--TTTAAGAATAACAATA
Fomel_001_0     ACTGTTTTAGC-AGGCATAAGAGAAAAATTAAAC-TT--T-------------------------GCACGTGGAAACTGAA-CCTGAA-------ATTG
Fomel_001_1     ACTAT-------CAGCCTAGAGGAAGTATTCAAC-ATACT-------------------------TTACTTGAAAGCACTATTTTTAAGAATAACAACA
Fophy_KOD886    ACTAT-------CAGCCTAGAGGAAGTATTCAAC-ATACT-------------------------TTACTTGAAAGCTCTATTTTTAAGAATAACAACA
Fophy_KOD887    ACTAT-------CAGCCTAGAGGAAGTATTCAAC-ATACT-------------------------TTACTTGAAAGCTCTATTTTTAAGAATAACAACA
Fophy_KOD888    ACTAT-------CAGCCTAGAGGAAGTATTCAAC-ATACT-------------------------TTACTTGAAAGCTCTATTTTTAAGAATAACAACA
Folyc_4287      ACCCT-------CAGCCTCGAGGAAGCATTCAAC-ATGCT-------------------------TTGC----AGGCTCTA-TTTTAAGAATAACAAAA
Folyc_002       ACCCT-------CAGCCTCGAGGAAGCATTCAAC-ATGCT-------------------------TTGC----AGGCTCTA-TTTTAAGAATAACAAAA
Folyc_026       ACCCT-------CAGCCTCGAGGAAGCATTCAAC-ATGCT-------------------------TTGC----AGGCTCTA-TTTTAAGAATAACAAAA
Folyc_038       ACCCT-------CAGCCTCGAGGAAGCATTCAAC-ATGCT-------------------------TTGC----AGGCTCTA-TTTTAAGAATAACAAAA
Folyc_004       ACCCT-------CAGCCTCGAGGAAGCATTCAAC-ATGCT-------------------------TTGC----AGGCTCTA-TTTTAAGAATAACAAAA
Folyc_029       ACCCT-------CAGCCTCGAGGAAGCATTCAAC-ATGCT-------------------------TTGC----AGGCTCTA-TTTTAAGAATAACAAAA
Folyc_074       ACCCT-------CAGCCTCGAGGAAGCATTCAAC-ATGCT-------------------------TTGC----AGGCTCTA-TTTTAAGAATAACAAAA
Folyc_MN25      ACCCT-------CAGCCTCGAGGAAGCATTCAAC-ATGCT-------------------------TTGC----AGGCTCTA-TTTTAAGAATAACAAAA
Folyc_007       ACCCT-------CAGCCTCGAGGAAGCATTCAAC-ATGCT-------------------------TTGC----AGGCTCTA-TTTTAAGAATAACAAAA
Folyc_014       ACCCT-------CAGCCTCGAGGAAGCATTCAAC-ATGCT-------------------------TTGC----AGGCTCTA-TTTTAAGAATAACAAAA
Folyc_016       ACCCT-------CAGCCTCGAGGAAGCATTCAAC-ATGCT-------------------------TTGC----AGGCTCTA-TTTTAAGAATAACAAAA
Folyc_018       ACCCT-------CAGCCTCGAGGAAGCATTCAAC-ATGCT-------------------------TTGC----AGGCTCTA-TTTTAAGAATAACAAAA
Folyc_069       ACCCT-------CAGCCTCGAGGAAGCATTCAAC-ATGCT-------------------------TTGC----AGGCTCTA-TTTTAAGAATAACAAAA
Folyc_072       ACCCT-------CAGCCTCGAGGAAGCATTCAAC-ATGCT-------------------------TTGC----AGGCTCTA-TTTTAAGAATAACAAAA
Folyc_073       ACCCT-------CAGCCTCGAGGAAGCATTCAAC-ATGCT-------------------------TTGC----AGGCTCTA-TTTTAAGAATAACAAAA
Folyc_075       ACCCT-------CAGCCTCGAGGAAGCATTCAAC-ATGCT-------------------------TTGC----AGGCTCTA-TTTTAAGAATAACAAAA
Focon_5176      ACTAT-------CAGCCTAGAGGACGTATTCAAC-ATACT-------------------------TTACTTGAAAGCTCTA-TTTTAGGAATAACAACA
Focon_PHW808    ACTAT-------CAGCCTAGAGGACGTATTCAAC-ATACT-------------------------TTACTTGAAAGCTCTA-TTTTAGGAATAACAACA
Fopis_HDV247_1  TCTAT-------CAGCCTAGAGGAAGTATTCAAC-ATGCT-------------------------TTCCTTGAAAGCTCTA-TTTTAAGAATAACAACA
Focub_B2_1      ACTAT-------CAGCCTAGAGAAAGCATTCAAC-ATGCT-------------------------TTACTTGAAAGCTCTA-TTTTAAGAATAACAACA
Focub_II5_1     ACTAT-------CAGCCTAGAGAAAGCATTCAAC-ATGCT-------------------------TTACTTGAAAGCTCTA-TTTTAAGAATAACAACA
Focub_N2        ACTATTACGGAGTAGCCTAGAGGAAGTATTCAAC-ATGCT-------------------------TTCCTTGAAAGCTC---TTTTAAGAATAACAACA
Focub_B2_0      ACTAT-------TAGCCTAGAGGAAGTATTCAAC-ATACT-------------------------TTACTTGAAAGCTC---TTTTAAGAATAACAACA
Focub_II5_0     ACTAT-------TAGCCTAGAGGAAGTATTCAAC-ATACT-------------------------TTACTTGAAAGCTC---TTTTAAGAATAACAACA
Fomln_010_0     ACTAT-------TAGCCTAGAGGAAGTATTCAAC-ATACT-------------------------ATACTTGAAAGCTCTA-TTTTAAGAATAACAACA
Fomln_009_0     ACTAT-------TAGCCTAGAGGAAGTATTCAAC-ATACT-------------------------ATACTTGAAAGCTCTA-TTTTAAGAATAACAACA
Fomln_011_0     ACTAT-------TAGCCTAGAGGAAGTATTCAAC-ATACT-------------------------ATACTTGAAAGCTCTA-TTTTAAGAATAACAACA
Fopis_HDV247_0  ACTAT-------CAGCCTAGAGGAAGTATTCAAC-ATGCT-------------------------TTACTTGAAAGCTCTA-TTTTAAGAATAACAACA
Fomln_001       ACTAT-------CAGCCCAGAGGAAGTATTCAAC-ATGCT-------------------------TTACTTGAAGGCTCTA-TTTTAAGAAAAACAACA
Fomln_004       ACTAT-------CAGCCCAGAGGAAGTATTCAAC-ATGCT-------------------------TTACTTGAAGGCTCTA-TTTTAAGAAAAACAACA
Fomln_005       ACTAT-------CAGCCCAGAGGAAGTATTCAAC-ATGCT-------------------------TTACTTGAAGGCTCTA-TTTTAAGAAAAACAACA
Fomln_009_1     ACTAT-------CAGCCCAGAGGAAGTATTCAAC-ATGCT-------------------------TTACTTGAAGGCTCTA-TTTTAAGAAAAACAACA
Fomln_011_1     ACTAT-------CAGCCCAGAGGAAGTATTCAAC-ATGCT-------------------------TTACTTGAAGGCTCTA-TTTTAAGAAAAACAACA
Fomln_012       ACTAT-------CAGCCCAGAGGAAGTATTCAAC-ATGCT-------------------------TTACTTGAAGGCTCTA-TTTTAAGAAAAACAACA
Fomln_006       ACTAT-------CAGCCCAGAGGAAGTATTCAAC-ATGCT-------------------------TTACTTGAAGGCTCTA-TTTTAAGAAAAACAACA
Fomln_010_1     ACTAT-------CAGCCCAGAGGAAGTATTCAAC-ATGCT-------------------------TTACTTGAAGGCTCTA-TTTTAAGAAAAACAACA
Fomln_013       ACTAT-------CAGCCCAGAGGAAGTATTCAAC-ATGCT-------------------------TTACTTGAAGGCTCTA-TTTTAAGAAAAACAACA
Fomln_016       ACTAT-------CAGCCCAGAGGAAGTATTCAAC-ATGCT-------------------------TTACTTGAAGGCTCTA-TTTTAAGAAAAACAACA
Folag_001       ACTAT-------CAGCCCAGAGGAAGTATTCAAC-ATGCT-------------------------TTACTTGAAAGCTCTA-TTTTAAGAAAAACAACA
Folag_002       ACTAT-------CAGCCCAGAGGAAGTATTCAAC-ATGCT-------------------------TTACTTGAAAGCTCTA-TTTTAAGAAAAACAACA
Fomom_001       ACTAT-------CAGCCCAGAGGAAGTATTCAAC-ATGCT-------------------------TTACTTGAAAGCTCTA-TTTTAAGAAAAACAACA
Folag_004       ACTAT-------CAGCCCAGAGGAAGTATTCAAC-ATGCT-------------------------TTACTTGAAAGCTCTA-TTTTAAGAAAAACAACA
Folag_005       ACTAT-------CAGCCCAGAGGAAGTATTCAAC-ATGCT-------------------------TTACTTGAAAGCTCTA-TTTTAAGAAAAACAACA
Fomom_004       ACTAT-------CAGCCCAGAGGAAGTATTCAAC-ATGCT-------------------------TTACTTGAAAGCTCTA-TTTTAAGAAAAACAACA
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Marker #1

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              1301
Fonic_001       ------------------------------
Fonic_003       ------------------------------
Fonic_010       ------------------------------
Fonic_012       ------------------------------
Focub_B2_2      TTTGCGCAACCCCTACT-ATACGG------
Focub_II5_2     TTTGCGCAACCCCTACT-ATACGGT-----
Fomel_001_0     TCTGTACTTTCTCTA---------------
Fomel_001_1     TTTGCGCAACCGCTAGT-ATGCTGT-----
Fophy_KOD886    TTTGCGCAGCCGCTAGT-ATGCTG------
Fophy_KOD887    TTTGCGCAGCCGCTAGT-ATGCTG------
Fophy_KOD888    TTTGCGCAGCCGCTAGT-ATGCTG------
Folyc_4287      TTTGCGCAACCGCTAAT-ATACTGTTGAGT
Folyc_002       TTTGCGCAACCGCTAAT-ATACTGTTGAGT
Folyc_026       TTTGCGCAACCGCTAAT-ATACTGTTGAGT
Folyc_038       TTTGCGCAACCGCTAAT-ATACTGTTGAGT
Folyc_004       TTTGCGCAACCGCTAAT-ATACTGTTGAG-
Folyc_029       TTTGCGCAACCGCTAAT-ATACTGTTGAG-
Folyc_074       TTTGCGCAACCGCTAAT-ATACTGTTGAG-
Folyc_MN25      TTTGCGCAACCGCTAAT-ATACTGTTGAG-
Folyc_007       TTTGCGCAACCGCTAAT-ATACTGTTGAGT
Folyc_014       TTTGCGCAACCGCTAAT-ATACTGTTGAGT
Folyc_016       TTTGCGCAACCGCTAAT-ATACTGTTGAGT
Folyc_018       TTTGCGCAACCGCTAAT-ATACTGTTGAGT
Folyc_069       TTTGCGCAACCGCTAAT-ATACTGTTGAGT
Folyc_072       TTTGCGCAACCGCTAAT-ATACTGTTGAGT
Folyc_073       TTTGCGCAACCGCTAAT-ATACTGTTGAG-
Folyc_075       TTTGCGCAACCGCTAAT-ATACTGTTGAG-
Focon_5176      TTTGCGCCACCGCTA---------------
Focon_PHW808    TTTGCGCCACCGCTA---------------
Fopis_HDV247_1  TTTTCGCAACCGCTAGT-ATACTGTT----
Focub_B2_1      TTTGCGGGACCACTAAT-ATACTGT-----
Focub_II5_1     TTTGCGGGACCACTAAT-ATACTGT-----
Focub_N2        TTTGCGCAACCGCTAAT-ATAC--------
Focub_B2_0      TTTGCGCAACCGCTAAT-ATACTGTCGG--
Focub_II5_0     TTTGCGCAACCGCTAAT-ATACTGTCG---
Fomln_010_0     TTTGCGCAACCGCTAAT-ATACCGTT----
Fomln_009_0     TTTGCGCAACCGCTAAT-ATACCGTT----
Fomln_011_0     TTTGCGCAACCGCTAAT-ATACCGT-----
Fopis_HDV247_0  TTTGCGCAACCGCTCATAATACTG------
Fomln_001       TTTGCGCAACCGCTA---------------
Fomln_004       TTTGCGCAACCGCTA---------------
Fomln_005       TTTGCGCAACCGCTA---------------
Fomln_009_1     TTTGCGCAACCGCTA---------------
Fomln_011_1     TTTGCGCAACCGCTA---------------
Fomln_012       TTTGCGCAACCGCTA---------------
Fomln_006       TTTGCGCAACCGCTAA--------------
Fomln_010_1     TTTGCGCAACCGCTAA--------------
Fomln_013       TTTGCGCAACCGCTAA--------------
Fomln_016       TTTGCGCAACCGCTAA--------------
Folag_001       TTTGCGCAACCGCTA---------------
Folag_002       TTTGCGCAACCGCTA---------------
Fomom_001       TTTGCGCAACCGCTA---------------
Folag_004       TTTGCGCAACCGCTAA--------------
Folag_005       TTTGCGCAACCGCTAA--------------
Fomom_004       TTTGCGCAACCGCTAA--------------
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Marker #1

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Seaview [blocks=100 fontsize=7 A4] on Fri Mar 10 14:22:38 2017

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Fomln_011_1      -AGATAAATGCT-TAAAGCTGGCTTCCTTAAAATCTATAAAGCTTACC----TTCCTA-TCCCCC-CTTAAATACTACCTAAGCTTAAGCCTCTATTTAT
Folyc_069        AGGACAAATGCT-TGAAGCTGGCTTCCTCAAAATCTATAAAGCTCACC----TTCCT--CTCCCC-CTTCAATGCTGCTCAAGCTCAAGCCTCTGCTCAT
Folyc_002        AGGACAAATGCT-TGAAGCTGGCTTCCTCAAAATCTATAAAGCTCACC----TTCCT--CTCCCC-CTTCAATGCTGCTCAAGCTCAAGCCTCTGCTCAT
Folyc_016        AGGACAAATGCT-TGAAGCTGGCTTCCTCAAAATCTATAAAGCTCACC----TTCCT--CTCCCC-CTTCAATGCTGCTCAAGCTCAAGCCTCTGCTCAT
Folyc_038        AGGACAAATGCT-TGAAGCTGGCTTCCTCAAAATCTATAAAGCTCACC----TTCCT--CTCCCC-CTTCAATGCTGCTCAAGCTCAAGCCTCTGCTCAT
Folyc_072        AGGACAAATGCT-TGAAGCTGGCTTCCTCAAAATCTATAAAGCTCACC----TTCCT--CTCCCC-CTTCAATGCTGCTCAAGCTCAAGCCTCTGCTCAT
Folyc_073        AGGACAAATGCT-TGAAGCTGGCTTCCTCAAAATCTATAAAGCTCACC----TTCCT--CTCCCC-CTTCAATGCTGCTCAAGCTCAAGCCTCTGCTCAT
Folyc_074        AGGACAAATGCT-TGAAGCTGGCTTCCTCAAAATCTATAAAGCTCACC----TTCCT--CTCCCC-CTTCAATGCTGCTCAAGCTCAAGCCTCTGCTCAT
Folyc_075        AGGACAAATGCT-TGAAGCTGGCTTCCTCAAAATCTATAAAGCTCACC----TTCCT--CTCCCC-CTTCAATGCTGCTCAAGCTCAAGCCTCTGCTCAT
Folyc_4287       AGGACAAATGCT-TGAAGCTGGCTTCCTCAAAATCTATAAAGCTCACC----TTCCT--CTCCCC-CTTCAATGCTGCTCAAGCTCAAGCCTCTGCTCAT
Folyc_MN25       AGGACAAATGCT-TGAAGCTGGCTTCCTCAAAATCTATAAAGCTCACC----TTCCT--CTCCCC-CTTCAATGCTGCTCAAGCTCAAGCCTCTGCTCAT
Folyc_004        -GGACAAATGCT-TGAAGCTGGCTTCCTCAAAATCTATAAAGCTCACC----TTCCT--CTCCCC-CTTCAATGCTGCTCAAGCTCAAGCCTCTGCTCAT
Folyc_007        -GGACAAATGCT-TGAAGCTGGCTTCCTCAAAATCTATAAAGCTCACC----TTCCT--CTCCCC-CTTCAATGCTGCTCAAGCTCAAGCCTCTGCTCAT
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Folyc_029        -GGACAAATGCT-TGAAGCTGGCTTCCTCAAAATCTATAAAGCTCACC----TTCCT--CTCCCC-CTTCAATGCTGCTCAAGCTCAAGCCTCTGCTCAT
Focub_B2         --------CCCTATGAGGTTCGTTCTCCCGGGCGTAATAAATACTACTACTACTACTACTCCTCC-CTTGAATACTGCCCAAGCTCAAGCCTCTGCTCAT
Focub_II5        --------CCCTATGAGGTTCGTTCTCCCGGGCGTAATAAATACTACTACTACTACTACTCCTCC-CTTGAATACTGCCCAAGCTCAAGCCTCTGCTCAT
Forap_PHW815_1   ----CAAATGCT-TGAAGCTGGCTTCCCCAAAATCCAAAAAGCTCACA----TTCCTATCCCCCTTTTGAATACCGCCCAAACTCAAGCCTGTGCTCAT
Focon_5176       -GGACAAATGCT-CGAAGCTGGCTTCCCCAAAATCTATAAAGCTCACC----TTCCTA-TCCCCC-CTTGGATACTGCCCAAGCTCAAGCCTCTGCTCAT
Focon_PHW808     AGGACAAATGCT-CGACGCTGGCTTCCCC-AAATATATAAAGCTCACC----TTCCTA-TCCCCC-CTTGAATACTGCCCAAGCTCAGGCCTCTGCTCAT
Forap_PHW815_0   --------TGCT-CTAAGCTGGCTTCCCCAAAATCTATAAAACTCACC----TTCCTA-TCCCCC-CTTGAATACTGCCCAAGCTCAGGCCTCTGCTCAT
Fopis_HDV247     --GACAAATGCT-CGAAGCTGGCTTCCCCAAAATCTATATAGCTCACC----TTCCTA-TCCCCC-CTTGAATACTGCCCAAGCTCAAGCCTCTGCTCAT
Folag_001_0      --GACAAATGCT-CGAAGCTGGCTTCCCCAAAATCTATAAAGCTCACC----TCTCTA-TCCCCC-CTTAGATACTGCCCAAGCTCAAGCCTCTGCTCAT
Folag_005_0      --GACAAATGCT-CGAAGCTGGCTTCCCCAAAATCTATAAAGCTCACC----TCTCTA-TCCCCC-CTTAGATACTGCCCAAGCTCAAGCCTCTGCTCAT
Folag_002_0      -GGACAAATGCT-CGAAGCTGGCTTCCCCAAAATCTATAAAGCTCACC----TCTCTA-TCCCCC-CTTAGATACTGCCCAAGCTCAAGCCTCTGCTCAT
Folag_004_0      -GGACAAATGCT-CGAAGCTGGCTTCCCCAAAATCTATAAAGCTCACC----TCTCTA-TCCCCC-CTTAGATACTGCCCAAGCTCAAGCCTCTGCTCAT
Fomom_001_0      -GGACAAATGCT-CGAAGCTGGCTTCCCCAAAATCTATAAAGCTCACC----TCTCTA-TCCCCC-CTTAGATACTGCCCAAGCTCAAGCCTCTGCTCAT
Fomom_004_0      -GGACAAATGCT-CGAAGCTGGCTTCCCCAAAATCTATAAAGCTCACC----TCTCTA-TCCCCC-CTTAGATACTGCCCAAGCTCAAGCCTCTGCTCAT
Fogla_G76        -GGCCAAATGCT-AGAAGCTGGCTTCCCCAAAATCTATAAATCTCACC----TTCCTA-TCCCCC-CTTGAATACTGCCCAAGCTCAAGCCTCTGCTCAC
Fomom_001_2      --GATAAATACT-TGAAGCTGGCTTCTCTAAAATCTATAAAGCTTACC----TTCCTA-TCCCTC-CTTAAATACTGCCTAAGCTTAAGCCTCTGTTTAT
Fomom_004_3      --GATAAATACT-TGAAGCTGGCTTCTCTAAAATCTATAAAGCTTACC----TTCCTA-TCCCTC-CTTAAATACTGCCTAAGCTTAAGCCTCTGTTTAT
Fomom_001_1      --GCCAAATGCT-CGAAGCTGGCTTCCCCAAAATCTATAAATCTCACC----TTCCTA-TCCCCC-CTTGAATAATGCTCAAGCTCAAGCCTCTGCTCAT
Fomom_004_1      -GGCCAAATGCT-CGAAGCTGGCTTCCCCAAAATCTATAAATCTCACC----TTCCTA-TCCCCC-CTTGAATAATGCTCAAGCTCAAGCCTCTGCTCAT
Folil_39         --GACAAATGCT-CGAAGCTAACTTCCCCAAAATCTATAAAGATCACC----TTTCTATTCCCCC-CTTGAATACTGCCCAAGCTCAAGCCTCTGCTCAT
Folag_001_1      ---ACAAATGCT-CGAAGCTGGCTTCCCCAAAATCTATAAAGATCACC----TTTCTATTCCCCC-CTTGAATACTGCCCAAGCTCAAGCCTCTGCTCAT
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Folag_004_1      ---ACAAATGCT-CGAAGCTGGCTTCCCCAAAATCTATAAAGATCACC----TTTCTATTCCCCC-CTTGAATACTGCCCAAGCTCAAGCCTCTGCTCAT
Folag_005_1      ---ACAAATGCT-CGAAGCTGGCTTCCCCAAAATCTATAAAGATCACC----TTTCTATTCCCCC-CTTGAATACTGCCCAAGCTCAAGCCTCTGCTCAT
Fomom_001_3      ---ACAAATGCT-CGAAGCTGGCTTCCCCAAAATCTATAAAGATCACC----TTTCTATTCCCCC-CTTGAATACTGCCCAAGCTCAAGCCTCTGCTCAT
Fomom_004_2      ---ACAAATGCT-CGAAGCTGGCTTCCCCAAAATCTATAAAGATCACC----TTTCTATTCCCCC-CTTGAATACTGCCCAAGCTCAAGCCTCTGCTCAT
Fomln_006        ---ACAAATGCT-CGAAGCTGGCTTCCCCAAAATCTATAAAGATCACC----TTTCTATTCCCCC-CTTGAATACTGCCCAAGCTCAAGCCTCTGCTCAT
Fomln_012        ---ACAAATGCT-CGAAGCTGGCTTCCCCAAAATCTATAAAGATCACC----TTTCTATTCCCCC-CTTGAATACTGCCCAAGCTCAAGCCTCTGCTCAT
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Fomln_005        ---ACAAATGCT-CGAAGCTGGCTTCCCCAAAATCTATAAAGATCACC----TTTCTATTCCCCC-CTTGAATACTGCCCAAGCTCAAGCCTCTGCTCAT
Fomln_016        ---ACAAATGCT-CGAAGCTGGCTTCCCCAAAATCTATAAAGATCACC----TTTCTATTCCCCC-CTTGAATACTGCCCAAGCTCAAGCCTCTGCTCAT
Fomln_009_0      ---ACAAATGCT-CGAAGCTGGCTTCCCCAAAATCTATAAAGATCACC----TTTCTATTCCCCC-CTTGAATACTGCCCAAGCTCAAGCCTCTGCTCAT
Fomln_011_0      --GACAAATGCT-CGAAGCTGGCTTCCCCAAAATCTATAAAGATCACC----TTTCTATTCCCCC-CTTGAATACTGCCCAAGCTCAAGCCTCTGCTCAT
Fonic_001        -TAATAACTAT--AGACTTTAGC-------AAATATATAAG-----------TTAGTA--------TGTAATTGTTGAAAAGGACCATGCTGATTGAGGG
Fonic_003        -GAACAAATGCT-CGAAACTAGTTTCCTCAAAATCTATAAAGCTCACC----TTCCTA-TCCCCC-CTTCAATGCCGCTCAAGCTCAAGCCTCGGCTCAT
Fonic_012        -GAACAAATGCT-CGAAACTAGTTTCCTCAAAATCTATAAAGCTCACC----TTCCTA-TCCCCC-CTTCAATGCCGCTCAAGCTCAAGCCTCGGCTCAT
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Marker #20

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                101
Fomln_009_1     ATATACAAGT------CA-----TATCTATACTTTTCAAAATAGTCTCCCAGTC-------------TACCAACCTATCACCATGGTTAATATCA--CTC
Fomln_011_1     ATATACAAGT------CA-----TATCTATACTTTTCAAAATAGTCTCCCAGTC-------------TACCAACCTATCACCATGGTTAATATCA--CTC
Folyc_069       TCATACAGGT------TA-----CATTTACACTTTTCAAAATACTCTCCAAGCC-------------TACCAGCCTGTCATCATGGTCGCCATCACTCTC
Folyc_002       TCATACAGGT------TA-----CATTTACACTTTTCAAAATACTCTCCAAGCC-------------TACCAGCCTGTCATCATGGTCGCCATCACTCTC
Folyc_016       TCATACAGGT------TA-----CATTTACACTTTTCAAAATACTCTCCAAGCC-------------TACCAGCCTGTCATCATGGTCGCCATCACTCTC
Folyc_038       TCATACAGGT------TA-----CATTTACACTTTTCAAAATACTCTCCAAGCC-------------TACCAGCCTGTCATCATGGTCGCCATCACTCTC
Folyc_072       TCATACAGGT------TA-----CATTTACACTTTTCAAAATACTCTCCAAGCC-------------TACCAGCCTGTCATCATGGTCGCCATCACTCTC
Folyc_073       TCATACAGGT------TA-----CATTTACACTTTTCAAAATACTCTCCAAGCC-------------TACCAGCCTGTCATCATGGTCGCCATCACTCTC
Folyc_074       TCATACAGGT------TA-----CATTTACACTTTTCAAAATACTCTCCAAGCC-------------TACCAGCCTGTCATCATGGTCGCCATCACTCTC
Folyc_075       TCATACAGGT------TA-----CATTTACACTTTTCAAAATACTCTCCAAGCC-------------TACCAGCCTGTCATCATGGTCGCCATCACTCTC
Folyc_4287      TCATACAGGT------TA-----CATTTACACTTTTCAAAATACTCTCCAAGCC-------------TACCAGCCTGTCATCATGGTCGCCATCACTCTC
Folyc_MN25      TCATACAGGT------TA-----CATTTACACTTTTCAAAATACTCTCCAAGCC-------------TACCAGCCTGTCATCATGGTCGCCATCACTCTC
Folyc_004       TCATACAGGT------TA-----CATTTACACTTTTCAAAATACTCTCCAAGCC-------------TACCAGCCTGTCATCATGGTCGCCATCACTCTC
Folyc_007       TCATACAGGT------TA-----CATTTACACTTTTCAAAATACTCTCCAAGCC-------------TACCAGCCTGTCATCATGGTCGCCATCACTCTC
Folyc_014       TCATACAGGT------TA-----CATTTACACTTTTCAAAATACTCTCCAAGCC-------------TACCAGCCTGTCATCATGGTCGCCATCACTCTC
Folyc_018       TCATACAGGT------TA-----CATTTACACTTTTCAAAATACTCTCCAAGCC-------------TACCAGCCTGTCATCATGGTCGCCATCACTCTC
Folyc_026       TCATACAGGT------TA-----CATTTACACTTTTCAAAATACTCTCCAAGCC-------------TACCAGCCTGTCATCATGGTCGCCATCACTCTC
Folyc_029       TCATACAGGT------TA-----CATTTACACTTTTCAAAATACTCTCCAAGCC-------------TACCAGCCTGTCATCATGGTCGCCATCACTCTC
Focub_B2        CCATACGGGT------TA-----CATCTACACTTTTCAAAATACTCTCCCAGCC-------------TACCAGCCTGTCATTATGGTCACCATCA--CTC
Focub_II5       CCATACGGGT------TA-----CATCTACACTTTTCAAAATACTCTCCCAGCC-------------TACCAGCCTGTCATTATGGTCACCATCA--CTC
Forap_PHW815_1  TCATACGAGT------TG-----CATCTACACTTTTCAAAATAGTCTCCCAGTC-------------TACCGGCCTGTCACCATGGTCAACATCA--CTC
Focon_5176      TCATACGGGT------TA-----CACCTACACTTTTCAAAATAGTCTCCCAGCC-------------TACCAGCCTGTCATCATGGTCGCCATCA--CTC
Focon_PHW808    TCATACGGGT------TA-----CATCTACACTTTTCAAAATAGTCTCCCAGTC-------------TACCAGCCTGCCATCATGGTCAACATCA--CTT
Forap_PHW815_0  TCATACGGGTTACCGGTA-----CATCTACACTTTTCAAAATAGTCTCCCAGTT-------------TACCAGCCTGTTACCATGGTCAACATCA--CTC
Fopis_HDV247    TCATACGGGT------TA-----CATCTACACTTTTCAAAATACTCTCCCAGTC-------------TACCAGCCTGTCACCATGGTCAACATCA--CTC
Folag_001_0     TCATACGGGT------TA-----CAACAACACTTTTCAAAATAGTCTCCCAGCC-------------TACCAGCCTGTCATCATGGTCACCATCA--CTC
Folag_005_0     TCATACGGGT------TA-----CAACAACACTTTTCAAAATAGTCTCCCAGCC-------------TACCAGCCTGTCATCATGGTCACCATCA--CTC
Folag_002_0     TCATACGGGT------TA-----CAACAACACTTTTCAAAATAGTCTCCCAGCC-------------TACCAGCCTGTCATCATGGTCACCATCA--CTC
Folag_004_0     TCATACGGGT------TA-----CAACAACACTTTTCAAAATAGTCTCCCAGCC-------------TACCAGCCTGTCATCATGGTCACCATCA--CTC
Fomom_001_0     TCATACGGGT------TA-----CAACAACACTTTTCAAAATAGTCTCCCAGCC-------------TACCAGCCTGTCATCATGGTCACCATCA--CTC
Fomom_004_0     TCATACGGGT------TA-----CAACAACACTTTTCAAAATAGTCTCCCAGCC-------------TACCAGCCTGTCATCATGGTCACCATCA--CTC
Fogla_G76       TTATACGGGT------TA-----CAACTACACTTTTCAAAATAGACTCCCAGTC-------------TACCAGCCTGCCACCATGGTCAACATCA--CTC
Fomom_001_2     TTATACAGGT------CA-----CGTCTATACTTTTCAAAATAGTCTCCCAGTC-------------TGCCAACCTATCACCATGGTTAACATCA--CTC
Fomom_004_3     TTATACAGGT------CA-----CGTCTATACTTTTCAAAATAGTCTCCCAGTC-------------TGCCAACCTATCACCATGGTTAACATCA--CTC
Fomom_001_1     TAATACGGGT------TA-----CATCTACACTTTTCAAAATAGTCTCCCAGCC-------------TACCAGCCTGTTACCATGGTCAACATCA--CTC
Fomom_004_1     TAATACGGGT------TA-----CATCTACACTTTTCAAAATAGTCTCCCAGCC-------------TACCAGCCTGTTACCATGGTCAACATCA--CTC
Folil_39        TCATACGAGT------TA-----CATCTACACTTTTCAAAATAGTCTCCCAGTC-------------TACCAGCCTGTCATAATGGTCAACATCA--CTC
Folag_001_1     TCATACGGGT------TA-----CATCTACACTTTTCAAAATAGTCTCCCAGTC-------------TACCAGCCTGTTACCATGGTCAACATCA--CTC
Folag_002_1     TCATACGGGT------TA-----CATCTACACTTTTCAAAATAGTCTCCCAGTC-------------TACCAGCCTGTTACCATGGTCAACATCA--CTC
Folag_004_1     TCATACGGGT------TA-----CATCTACACTTTTCAAAATAGTCTCCCAGTC-------------TACCAGCCTGTTACCATGGTCAACATCA--CTC
Folag_005_1     TCATACGGGT------TA-----CATCTACACTTTTCAAAATAGTCTCCCAGTC-------------TACCAGCCTGTTACCATGGTCAACATCA--CTC
Fomom_001_3     TCATACGGGT------TA-----CATCTACACTTTTCAAAATAGTCTCCCAGTC-------------TACCAGCCTGTTACCATGGTCAACATCA--CTC
Fomom_004_2     TCATACGGGT------TA-----CATCTACACTTTTCAAAATAGTCTCCCAGTC-------------TACCAGCCTGTTACCATGGTCAACATCA--CTC
Fomln_006       TCATACGGGT------TA-----CATCTACACTTTTCAAAATAGTCTCCCAGTC-------------TACCAGCCTGTTACCATGGTCAACATCA--CTC
Fomln_012       TCATACGGGT------TA-----CATCTACACTTTTCAAAATAGTCTCCCAGTC-------------TACCAGCCTGTTACCATGGTCAACATCA--CTC
Fomln_013       TCATACGGGT------TA-----CATCTACACTTTTCAAAATAGTCTCCCAGTC-------------TACCAGCCTGTTACCATGGTCAACATCA--CTC
Fomln_001       TCATACGGGT------TA-----CATCTACACTTTTCAAAATAGTCTCCCAGTC-------------TACCAGCCTGTTACCATGGTCAACATCA--CTC
Fomln_004       TCATACGGGT------TA-----CATCTACACTTTTCAAAATAGTCTCCCAGTC-------------TACCAGCCTGTTACCATGGTCAACATCA--CTC
Fomln_010       TCATACGGGT------TA-----CATCTACACTTTTCAAAATAGTCTCCCAGTC-------------TACCAGCCTGTTACCATGGTCAACATCA--CTC
Fomln_005       TCATACGGGT------TA-----CATCTACACTTTTCAAAATAGTCTCCCAGTC-------------TACCAGCCTGTTACCATGGTCAACATCA--CTC
Fomln_016       TCATACGGGT------TA-----CATCTACACTTTTCAAAATAGTCTCCCAGTC-------------TACCAGCCTGTTACCATGGTCAACATCA--CTC
Fomln_009_0     TCATACGGGT------TA-----CATCTACACTTTTCAAAATAGTCTCCCAGTC-------------TACCAGCCTGTTACCATGGTCAACATCA--CTC
Fomln_011_0     TCATACGGGT------TA-----CATCTACACTTTTCAAAATAGTCTCCCAGTC-------------TACCAGCCTGTTACCATGGTCAACATCA--CTC
Fonic_001       TCGGAAAAGTATCAGCTAAACCCCATCTATA---TTAGGAAGTTTCTCCCAATTGAGAAAAGAGGGGTAACTCACTGACTACATCATCAACATCA--ATG
Fonic_003       TCAGAAAGGT------TA-----CATTTACACTTTTCAAAATAGTCTCCCAGTC-------------TACCAGCCTCACATCATGGGCAACTTCA--ATA
Fonic_012       TCAGAAAGGT------TA-----CATTTACACTTTTCAAAATAGTCTCCCAGTC-------------TACCAGCCTCACATCATGGGCAACTTCA--ATA
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Marker #20

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Fomln_011_1     TGAAAGACTTAGCAGGTATTATCGCCTTTCTGGCCATTGCTAATGCATTACCTACCGAAGTTATACCTTC---TGAAAGCGATTCCATTCCACAGGAATT
Folyc_069       TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGTCAATGCATCGCCTGCCAAAATCGTACCTTCTGATGAAAGCGATTCCATTCCACAAGAATT
Folyc_002       TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGTCAATGCATCGCCTGCCAAAATCGTACCTTCTGATGAAAGCGATTCCATTCCACAAGAATT
Folyc_016       TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGTCAATGCATCGCCTGCCAAAATCGTACCTTCTGATGAAAGCGATTCCATTCCACAAGAATT
Folyc_038       TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGTCAATGCATCGCCTGCCAAAATCGTACCTTCTGATGAAAGCGATTCCATTCCACAAGAATT
Folyc_072       TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGTCAATGCATCGCCTGCCAAAATCGTACCTTCTGATGAAAGCGATTCCATTCCACAAGAATT
Folyc_073       TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGTCAATGCATCGCCTGCCAAAATCGTACCTTCTGATGAAAGCGATTCCATTCCACAAGAATT
Folyc_074       TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGTCAATGCATCGCCTGCCAAAATCGTACCTTCTGATGAAAGCGATTCCATTCCACAAGAATT
Folyc_075       TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGTCAATGCATCGCCTGCCAAAATCGTACCTTCTGATGAAAGCGATTCCATTCCACAAGAATT
Folyc_4287      TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGTCAATGCATCGCCTGCCAAAATCGTACCTTCTGATGAAAGCGATTCCATTCCACAAGAATT
Folyc_MN25      TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGTCAATGCATCGCCTGCCAAAATCGTACCTTCTGATGAAAGCGATTCCATTCCACAAGAATT
Folyc_004       TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGTCAATGCATCGCCTGCCAAAATCGTACCTTCTGATGAAAGCGATTCCATTCCACAAGAATT
Folyc_007       TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGTCAATGCATCGCCTGCCAAAATCGTACCTTCTGATGAAAGCGATTCCATTCCACAAGAATT
Folyc_014       TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGTCAATGCATCGCCTGCCAAAATCGTACCTTCTGATGAAAGCGATTCCATTCCACAAGAATT
Folyc_018       TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGTCAATGCATCGCCTGCCAAAATCGTACCTTCTGATGAAAGCGATTCCATTCCACAAGAATT
Folyc_026       TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGTCAATGCATCGCCTGCCAAAATCGTACCTTCTGATGAAAGCGATTCCATTCCACAAGAATT
Folyc_029       TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGTCAATGCATCGCCTGCCAAAATCGTACCTTCTGATGAAAGCGATTCCATTCCACAAGAATT
Focub_B2        TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCTATTGCCAATGCATCGCCTGCCGAGGTTGTACCTTCTGATGAAAGCCATCCCATTCCACAGGAATT
Focub_II5       TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCTATTGCCAATGCATCGCCTGCCGAGGTTGTACCTTCTGATGAAAGCCATCCCATTCCACAGGAATT
Forap_PHW815_1  TGAAAATCTTGGCGGGTGTCACCGCCTTTCTGGCCATTGCCAATGCATCGCCTGCCGAAGTCGTACCTTC---TGAAAGCGATTCCATTCCACAGGAATT
Focon_5176      TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGTCAATGCATCGCCTGCCGAAGTCGTACCTTCTGATGAAAGCGATTCCATTCCACAGGAATT
Focon_PHW808    TGAAAGTCGTGGCGGGTGTCGCCGCCTTTCTGGCCATTGCAAACGCATCGCCTGCCGAAGTTGTACCTTCCGATGAAAGCGATTCCATTCCACAGGAATT
Forap_PHW815_0  TGAAAGTCTTGGCGGGTGTCGCTGCCTTTGTGGCCATTGCCAATGCATCGCCTGCCGAAGTCGTACCTTCTGATGAAAGCGATTCCATTCCACAGGAATT
Fopis_HDV247    TGAAAGTCTTGGCGGGTGTCGCTGCCTTTCTGGCCATTGCCAATGCATCGCCTGCCGAAGTCGTACCTTCTGTTGAAAGCGATTCCATTCCACAGGAATT
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Folag_005_0     TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGCCAATGCATCGCCTGCCGAAGTCGTACCTTCTGATGAAAGCGATCCCATTCCACAGGAATT
Folag_002_0     TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGCCAATGCATCGCCTGCCGAAGTCGTACCTTCTGATGAAAGCGATCCCATTCCACAGGAATT
Folag_004_0     TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGCCAATGCATCGCCTGCCGAAGTCGTACCTTCTGATGAAAGCGATCCCATTCCACAGGAATT
Fomom_001_0     TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGCCAATGCATCGCCTGCCGAAGTCGTACCTTCTGATGAAAGCGATCCCATTCCACAGGAATT
Fomom_004_0     TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGCCAATGCATCGCCTGCCGAAGTCGTACCTTCTGATGAAAGCGATCCCATTCCACAGGAATT
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Fomom_004_1     TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGCAAATGCATCGCCTGCCCAAGTTGCTCCTTCCGATGAAAGCGATTCCATTTCATAGGAATT
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Folag_001_1     TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGCCAATGCATCGCCTGCCGAAGTCGTGCCTTCTGATGAAAGCGATCTCATTCCACAGGAATT
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Folag_005_1     TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGCCAATGCATCGCCTGCCGAAGTCGTGCCTTCTGATGAAAGCGATCTCATTCCACAGGAATT
Fomom_001_3     TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGCCAATGCATCGCCTGCCGAAGTCGTGCCTTCTGATGAAAGCGATCTCATTCCACAGGAATT
Fomom_004_2     TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGCCAATGCATCGCCTGCCGAAGTCGTGCCTTCTGATGAAAGCGATCTCATTCCACAGGAATT
Fomln_006       TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGCCAATGCATCGCCTGCCGAAGTCGTGCCTTCTGATGAAAGCGATCTCATTCCACAGGAATT
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Fomln_005       TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGCCAATGCATCGCCTGCCGAAGTCGTGCCTTCTGATGAAAGCGATCTCATTCCACAGGAATT
Fomln_016       TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGCCAATGCATCGCCTGCCGAAGTCGTGCCTTCTGATGAAAGCGATCTCATTCCACAGGAATT
Fomln_009_0     TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGCCAATGCATCGCCTGCCGAAGTCGTGCCTTCTGATGAAAGCGATCTCATTCCACAGGAATT
Fomln_011_0     TGAAAGTCTTGGCGGGTGTCGCCGCCTTTCTGGCCATTGCCAATGCATCGCCTGCCGAAGTCGTGCCTTCTGATGAAAGCGATCTCATTCCACAGGAATT
Fonic_001       TCAAAGTCTTGGCGTGTGTCACCACCTTTCTGGCCATTGCCAATGCATCGCTTGCCGAAGTCGTACTTTCTGATGAAAGCGATTTCATACCACAAGAATT
Fonic_003       TGAAAGTCTTGGCGTGTGTCGCCGCCTTTCTGGCCATTGTCAATGCATCACCT-CCGAAGTCCTACCTTCTGATGAAAATGATTCCATTCCACAGGAATT
Fonic_012       TGAAAGTCTTGGCGTGTGTCGCCGCCTTTCTGGCCATTGTCAATGCATCACCT-CCGAAGTCCTACCTTCTGATGAAAATGATTCCATTCCACAGGAATT
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fp7406 fwd> Fomln

Marker #20

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Fomln_011_1     CATCGATGAGGTTCTTGCTTATTTTAAAACTCATCCTATAGATGGAATATCTAAGCGAGACGTGGGAAACGCTCTCCTTAAGCGAGTTCCAGCCGACCAC
Folyc_069       CATCGACGGAGTTCTTGCTTATTTCAAAGCTCAGCCTGTAAATGGAACGTCCAAGCGAGACGTGGAAAACGCTCTCCATAAGCGAGTTCCAGCCGAACAC
Folyc_002       CATCGACGGAGTTCTTGCTTATTTCAAAGCTCAGCCTGTAAATGGAACGTCCAAGCGAGACGTGGAAAACGCTCTCCATAAGCGAGTTCCAGCCGAACAC
Folyc_016       CATCGACGGAGTTCTTGCTTATTTCAAAGCTCAGCCTGTAAATGGAACGTCCAAGCGAGACGTGGAAAACGCTCTCCATAAGCGAGTTCCAGCCGAACAC
Folyc_038       CATCGACGGAGTTCTTGCTTATTTCAAAGCTCAGCCTGTAAATGGAACGTCCAAGCGAGACGTGGAAAACGCTCTCCATAAGCGAGTTCCAGCCGAACAC
Folyc_072       CATCGACGGAGTTCTTGCTTATTTCAAAGCTCAGCCTGTAAATGGAACGTCCAAGCGAGACGTGGAAAACGCTCTCCATAAGCGAGTTCCAGCCGAACAC
Folyc_073       CATCGACGGAGTTCTTGCTTATTTCAAAGCTCAGCCTGTAAATGGAACGTCCAAGCGAGACGTGGAAAACGCTCTCCATAAGCGAGTTCCAGCCGAACAC
Folyc_074       CATCGACGGAGTTCTTGCTTATTTCAAAGCTCAGCCTGTAAATGGAACGTCCAAGCGAGACGTGGAAAACGCTCTCCATAAGCGAGTTCCAGCCGAACAC
Folyc_075       CATCGACGGAGTTCTTGCTTATTTCAAAGCTCAGCCTGTAAATGGAACGTCCAAGCGAGACGTGGAAAACGCTCTCCATAAGCGAGTTCCAGCCGAACAC
Folyc_4287      CATCGACGGAGTTCTTGCTTATTTCAAAGCTCAGCCTGTAAATGGAACGTCCAAGCGAGACGTGGAAAACGCTCTCCATAAGCGAGTTCCAGCCGAACAC
Folyc_MN25      CATCGACGGAGTTCTTGCTTATTTCAAAGCTCAGCCTGTAAATGGAACGTCCAAGCGAGACGTGGAAAACGCTCTCCATAAGCGAGTTCCAGCCGAACAC
Folyc_004       CATCGACGGAGTTCTTGCTTATTTCAAAGCTCAGCCTGTAAATGGAACGTCCAAGCGAGACGTGGAAAACGCTCTCCATAAGCGAGTTCCAGCCGAACAC
Folyc_007       CATCGACGGAGTTCTTGCTTATTTCAAAGCTCAGCCTGTAAATGGAACGTCCAAGCGAGACGTGGAAAACGCTCTCCATAAGCGAGTTCCAGCCGAACAC
Folyc_014       CATCGACGGAGTTCTTGCTTATTTCAAAGCTCAGCCTGTAAATGGAACGTCCAAGCGAGACGTGGAAAACGCTCTCCATAAGCGAGTTCCAGCCGAACAC
Folyc_018       CATCGACGGAGTTCTTGCTTATTTCAAAGCTCAGCCTGTAAATGGAACGTCCAAGCGAGACGTGGAAAACGCTCTCCATAAGCGAGTTCCAGCCGAACAC
Folyc_026       CATCGACGGAGTTCTTGCTTATTTCAAAGCTCAGCCTGTAAATGGAACGTCCAAGCGAGACGTGGAAAACGCTCTCCATAAGCGAGTTCCAGCCGAACAC
Folyc_029       CATCGACGGAGTTCTTGCTTATTTCAAAGCTCAGCCTGTAAATGGAACGTCCAAGCGAGACGTGGAAAACGCTCTCCATAAGCGAGTTCCAGCCGAACAC
Focub_B2        CATCGATGGAGTTCTTGCTTATTTCAAAGCTCACCCTTTAAATGGAACGGCCAAGAGAGACATGGGAAACGCTCTCCATAAGCGAGTTCCAGGCGAGCAC
Focub_II5       CATCGATGGAGTTCTTGCTTATTTCAAAGCTCACCCTTTAAATGGAACGGCCAAGAGAGACATGGGAAACGCTCTCCATAAGCGAGTTCCAGGCGAGCAC
Forap_PHW815_1  CATCGACGGAGTCCTTGCTTACTTCAAAGCTCATCCTGTAAATGGAACGTCCAAGCGAGACGTGGGAAATGCTCTCCATAAGCGAGTTCCAGCCGACCAC
Focon_5176      CATCGACGGAGTTCTTGCATATTTCAAAGCTCATCCTGTAAATGGAATGTCCAAGCGAGACGTGGGAAACGCTCTCCATAAGCGAGTCCCAGCCGACCAC
Focon_PHW808    CATCGACGGAGTTCTTGCTTATTTCAAAGCTCATCCTGTAAATGGAATGTCCAAGCGAGACGTGGGAAACGCTCTCCATAAGCGAGTCCCAGCCGACCAC
Forap_PHW815_0  CATCGACGGAGTTCTTGCTTATTTCAAAGCTCATCCTGTAAATGGAACGTCCAAGCGAGACGTGGGAAACGCTCTCCATAAGCGAGTTCCAGCCGAACAC
Fopis_HDV247    CATCGACGGAGTTCTTGCTTATTTCAAAACTCATCCTGTAAATGGAACGTCCAAGCGAGACGTTGGAAACGCTCTCCATAAGCGAGTTCCAGCCGACCAC
Folag_001_0     CATCGACGGAGTTCTTGCTTATTTCAAAGCTCACCCTTTAAATGGAACGGCTAAGCGAGATGTAGGAAACGCTCTCCATAAGCGAGTTCCAGCCGAACAC
Folag_005_0     CATCGACGGAGTTCTTGCTTATTTCAAAGCTCACCCTTTAAATGGAACGGCTAAGCGAGATGTAGGAAACGCTCTCCATAAGCGAGTTCCAGCCGAACAC
Folag_002_0     CATCGACGGAGTTCTTGCTTATTTCAAAGCTCACCCTTTAAATGGAACGGCTAAGCGAGATGTAGGAAACGCTCTCCATAAGCGAGTTCCAGCCGAACAC
Folag_004_0     CATCGACGGAGTTCTTGCTTATTTCAAAGCTCACCCTTTAAATGGAACGGCTAAGCGAGATGTAGGAAACGCTCTCCATAAGCGAGTTCCAGCCGAACAC
Fomom_001_0     CATCGACGGAGTTCTTGCTTATTTCAAAGCTCACCCTTTAAATGGAACGGCTAAGCGAGATGTAGGAAACGCTCTCCATAAGCGAGTTCCAGCCGAACAC
Fomom_004_0     CATCGACGGAGTTCTTGCTTATTTCAAAGCTCACCCTTTAAATGGAACGGCTAAGCGAGATGTAGGAAACGCTCTCCATAAGCGAGTTCCAGCCGAACAC
Fogla_G76       CATCGACGGAGTTCTTGCTTATTTCAAAGCTCATCCTTTAAATGGAACGTCCAAGCGAGACGTGGGAAACGCTCTCCATAAGCGAGTTCCAGCCGACCAC
Fomom_001_2     CATCGACGGAGTTCTTGCTTATTTCAAAGCTCATCCTGTAAATGGAACGTCCAAGCGAGACGTGGGAAACGCCCTCCATAAGCGAGTTCCAACCAACCAC
Fomom_004_3     CATCGACGGAGTTCTTGCTTATTTCAAAGCTCATCCTGTAAATGGAACGTCCAAGCGAGACGTGGGAAACGCCCTCCATAAGCGAGTTCCAACCAACCAC
Fomom_001_1     CATCGACGGAGTTCTTGCTTATTTCAAAGCTCATCCTGTAAATGGAACGTCCAAGCGAGACGTGGGAAACGCTCTCCATAAGCGAGTTCCAGCCGACCAC
Fomom_004_1     CATCGACGGAGTTCTTGCTTATTTCAAAGCTCATCCTGTAAATGGAACGTCCAAGCGAGACGTGGGAAACGCTCTCCATAAGCGAGTTCCAGCCGACCAC
Folil_39        CATCGACGGAGTTCTTGCTTATTTCAAAGCTCACCCTTTAAATGGAACGGCCAAGCGAGACGTGGGAAACGCTCTCCATAAGCGAGTTCCAGCCGACCAC
Folag_001_1     CATCGACGGAGTTCTTGCTTATTTCAAAGCTCATCCTGTAAATGGAACGTCCAAGCGAGACGTGGGAAACGCCCTCCATAAGCGAGTTCCAACCAACCAC
Folag_002_1     CATCGACGGAGTTCTTGCTTATTTCAAAGCTCATCCTGTAAATGGAACGTCCAAGCGAGACGTGGGAAACGCCCTCCATAAGCGAGTTCCAACCAACCAC
Folag_004_1     CATCGACGGAGTTCTTGCTTATTTCAAAGCTCATCCTGTAAATGGAACGTCCAAGCGAGACGTGGGAAACGCCCTCCATAAGCGAGTTCCAACCAACCAC
Folag_005_1     CATCGACGGAGTTCTTGCTTATTTCAAAGCTCATCCTGTAAATGGAACGTCCAAGCGAGACGTGGGAAACGCCCTCCATAAGCGAGTTCCAACCAACCAC
Fomom_001_3     CATCGACGGAGTTCTTGCTTATTTCAAAGCTCATCCTGTAAATGGAACGTCCAAGCGAGACGTGGGAAACGCCCTCCATAAGCGAGTTCCAACCAACCAC
Fomom_004_2     CATCGACGGAGTTCTTGCTTATTTCAAAGCTCATCCTGTAAATGGAACGTCCAAGCGAGACGTGGGAAACGCCCTCCATAAGCGAGTTCCAACCAACCAC
Fomln_006       CATCGACGGAGTTCTTGCTTATTTCCAAGCTCATCCTGTAAATGGAACGTCCAAGCGAGACGTGGGAAACGCCCTCCATAAGCGAGTTCCAACCAACCAC
Fomln_012       CATCGACGGAGTTCTTGCTTATTTCCAAGCTCATCCTGTAAATGGAACGTCCAAGCGAGACGTGGGAAACGCCCTCCATAAGCGAGTTCCAACCAACCAC
Fomln_013       CATCGACGGAGTTCTTGCTTATTTCCAAGCTCATCCTGTAAATGGAACGTCCAAGCGAGACGTGGGAAACGCCCTCCATAAGCGAGTTCCAACCAACCAC
Fomln_001       CATCGACGGAGTTCTTGCTTATTTCCAAGCTCATCCTGTAAGTGGAACGTCCAAGCGAGACGTGGGAAACGCCCTCCATAAGCGAGTTCCAACCAACCAC
Fomln_004       CATCGACGGAGTTCTTGCTTATTTCCAAGCTCATCCTGTAAGTGGAACGTCCAAGCGAGACGTGGGAAACGCCCTCCATAAGCGAGTTCCAACCAACCAC
Fomln_010       CATCGACGGAGTTCTTGCTTATTTCCAAGCTCATCCTGTAAGTGGAACGTCCAAGCGAGACGTGGGAAACGCCCTCCATAAGCGAGTTCCAACCAACCAC
Fomln_005       CATCGACGGAGTTCTTGCTTATTTCCAAGCTCATCCTGTAAGTGGAACGTCCAAGCGAGACGTGGGAAACGCCCTCCATAAGCGAGTTCCAACCAACCAC
Fomln_016       CATCGACGGAGTTCTTGCTTATTTCCAAGCTCATCCTGTAAGTGGAACGTCCAAGCGAGACGTGGGAAACGCCCTCCATAAGCGAGTTCCAACCAACCAC
Fomln_009_0     CATCGACGGAGTTCTTGCTTATTTCCAAGCTCATCCTGTAAGTGGAACGTCCAAGCGAGACGTGGGAAACGCCCTCCATAAGCGAGTTCCAACCAACCAC
Fomln_011_0     CATCGACGGAGTTCTTGCTTATTTCCAAGCTCATCCTGTAAGTGGAACGTCCAAGCGAGACGTGGGAAACGCCCTCCATAAGCGAGTTCCAACCAACCAC
Fonic_001       CATCGATGAAATCATTGCTTACTTCAAAGCCCATCCTGTAAATGGAACGTCAAAGCAAGACGTACGAAACGCTCTCCATAAGCGAGTTCCAGCTGACCAT
Fonic_003       TATTGACGGAGTTCT----TATTTAAAAGCTCATCCTGTGAATGGAACGTCCAAGCGAGGTGTAGGAAACGTTCCCCATAAGCGAATTCCCGGCGACCAT
Fonic_012       TATTGACGGAGTTCT----TATTTAAAAGCTCATCCTGTGAATGGAACGTCCAAGCGAGGTGTAGGAAACGTTCCCCATAAGCGAATTCCCGGCGACCAT
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Marker #20

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                401
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Fomln_011_1      -GGCTGCGACCATGATGATCATTGGTTCTGGCGTTCTTGTCTGAGCGATGTAGGTCCGAGGCAATTCCAAGACCAGTGTCAGAA------TGAGC--ATG
Folyc_069        -GGCTGCAACCATGACGATCATTGGTTCATGCGTTCTTGTCTGAGCGATGTAGGTCCGAGGCAATTCCAAGACCGGTGTCAGGA------TGAGC--ATG
Folyc_002        -GGCTGCAACCATGACGATCATTGGTTCATGCGTTCTTGTCTGAGCGATGTAGGTCCGAGGCAATTCCAAGACCGGTGTCAGGA------TGAGC--ATG
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Folyc_038        -GGCTGCAACCATGACGATCATTGGTTCATGCGTTCTTGTCTGAGCGATGTAGGTCCGAGGCAATTCCAAGACCGGTGTCAGGA------TGAGC--ATG
Folyc_072        -GGCTGCAACCATGACGATCATTGGTTCATGCGTTCTTGTCTGAGCGATGTAGGTCCGAGGCAATTCCAAGACCGGTGTCAGGA------TGAGC--ATG
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Folyc_018        -GGCTGCAACCATGACGATCATTGGTTCATGCGTTCTTGTCTGAGCGATGTAGGTCCGAGGCAATTCCAAGACCGGTGTCAGGA------TGAGC--ATG
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Folyc_029        -GGCTGCAACCATGACGATCATTGGTTCATGCGTTCTTGTCTGAGCGATGTAGGTCCGAGGCAATTCCAAGACCGGTGTCAGGA------TGAGC--ATG
Focub_B2         -GGCTGCGACCATGACGATCATTGGGTGTCGCGTATGTGTCTGAGCGATGTAGGTCCAAGGGAATACGAAGACGAGTGTCAGGA------TGAGG--ATG
Focub_II5        -GGCTGCGACCATGACGATCATTGGGTGTCGCGTATGTGTCTGAGCGATGTAGGTCCAAGGGAATACGAAGACGAGTGTCAGGA------TGAGG--ATG
Forap_PHW815_1   -GGCTGCGACCATGCAGATCATTGGGTGGAGCGTTATTGTCTGAGCGATGTAGGTCCGAGGCAATTCGAAGACGAGTGTTA---------TGATC--ATG
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Folag_002_0      -GGCTGCGACCATGACGATCATTGGGTGGAGCGTACTTGTCTGAGCGATGTAGGTCCGAGGCAATTCGAAGACCAGTGTCTGGA------TCCAC--ATG
Folag_004_0      -GGCTGCGACCATGACGATCATTGGGTGGAGCGTACTTGTCTGAGCGATGTAGGTCCGAGGCAATTCGAAGACCAGTGTCTGGA------TCCAC--ATG
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Fomom_004_0      -GGCTGCGACCATGACGATCATTGGGTGGAGCGTACTTGTCTGAGCGATGTAGGTCCGAGGCAATTCGAAGACCAGTGTCTGGA------TCCAC--ATG
Fogla_G76        -GGCTGCGACCATGACGATCATTGGTTCTGGCGTTCTTGTCTGACCGATGTAGGTCCGAGGCAATTCCAAGACCAGTGTCAGAA------TGAGG--ATG
Fomom_001_2      -GGCTGCGACCATGCCGATCATTGGGTGCGGCGTTCTTGTCTGAGCGATGAAGGTCCGAGGGAATACCAAGACGAGTGTGTGGATACTGATGAGG--ATG
Fomom_004_3      -GGCTGCGACCATGCCGATCATTGGGTGCGGCGTTCTTGTCTGAGCGATGAAGGTCCGAGGGAATACCAAGACGAGTGTGTGGATACTGATGAGG--ATG
Fomom_001_1      -GGCTGTGAGCATGCCGGTCATTGGGTGCGGCGTTCTTGTCTGAGCGATGTAGGTCCTAGGGAATACGAAGACCAGTGTGTGGATAC---TATGG--ATG
Fomom_004_1      -GGCTGTGAGCATGCCGGTCATTGGGTGCGGCGTTCTTGTCTGAGCGATGTAGGTCCTAGGGAATACGAAGACCAGTGTGTGGATAC---TATGG--ATG
Folil_39         -GGCTGCGAGCATGCCGATCATTGGGTGCGGCGTTCTTGTCTGAGCGATGTAGGTCCGAGGGAATACGAAGACGAGTGTGTGGATAC---TGAGG--ATG
Folag_001_1      -GGCTGCGATCATGCCGATCATTGGGTGCGGCGTTCTTGTCTGAGCGATGAAGGTCCGAGGGAATACGAAGACGAGTGTATGGATAC---TGAGG--ATG
Folag_002_1      -GGCTGCGATCATGCCGATCATTGGGTGCGGCGTTCTTGTCTGAGCGATGAAGGTCCGAGGGAATACGAAGACGAGTGTATGGATAC---TGAGG--ATG
Folag_004_1      -GGCTGCGATCATGCCGATCATTGGGTGCGGCGTTCTTGTCTGAGCGATGAAGGTCCGAGGGAATACGAAGACGAGTGTATGGATAC---TGAGG--ATG
Folag_005_1      -GGCTGCGATCATGCCGATCATTGGGTGCGGCGTTCTTGTCTGAGCGATGAAGGTCCGAGGGAATACGAAGACGAGTGTATGGATAC---TGAGG--ATG
Fomom_001_3      -GGCTGCGATCATGCCGATCATTGGGTGCGGCGTTCTTGTCTGAGCGATGAAGGTCCGAGGGAATACGAAGACGAGTGTATGGATAC---TGAGG--ATG
Fomom_004_2      -GGCTGCGATCATGCCGATCATTGGGTGCGGCGTTCTTGTCTGAGCGATGAAGGTCCGAGGGAATACGAAGACGAGTGTATGGATAC---TGAGG--ATG
Fomln_006        -GGCTGCGATCATGCCGATCATTGGGTGCGGCGTTCTTGTCTGAGCGATGAAGGTCCGAGGGAATACCAAGACGAGTGTGTGGATACTGATGAGG--ATG
Fomln_012        -GGCTGCGATCATGCCGATCATTGGGTGCGGCGTTCTTGTCTGAGCGATGAAGGTCCGAGGGAATACCAAGACGAGTGTGTGGATACTGATGAGG--ATG
Fomln_013        -GGCTGCGATCATGCCGATCATTGGGTGCGGCGTTCTTGTCTGAGCGATGAAGGTCCGAGGGAATACCAAGACGAGTGTGTGGATACTGATGAGG--ATG
Fomln_001        GGGCTGCGATCATGCCGATCATTGGGTGCGGCGTTCTTGTCTGAGCGATGAAGGTCCGAGGGAATACCAAGACGAGTGTGTGGATACTGATGAGG--ATG
Fomln_004        GGGCTGCGATCATGCCGATCATTGGGTGCGGCGTTCTTGTCTGAGCGATGAAGGTCCGAGGGAATACCAAGACGAGTGTGTGGATACTGATGAGG--ATG
Fomln_010        GGGCTGCGATCATGCCGATCATTGGGTGCGGCGTTCTTGTCTGAGCGATGAAGGTCCGAGGGAATACCAAGACGAGTGTGTGGATACTGATGAGG--ATG
Fomln_005        GGGCTGCGATCATGCCGATCATTGGGTGCGGCGTTCTTGTCTGAGCGATGAAGGTCCGAGGGAATACCAAGACGAGTGTGTGGATACTGATGAGG--ATG
Fomln_016        GGGCTGCGATCATGCCGATCATTGGGTGCGGCGTTCTTGTCTGAGCGATGAAGGTCCGAGGGAATACCAAGACGAGTGTGTGGATACTGATGAGG--ATG
Fomln_009_0      -GGCTGCGATCATGCCGATCATTGGGTGCGGCGTTCTTGTCTGAGCGATGAAGGTCCGAGGGAATACCAAGACGAGTGTGTGGATACTGATGAGG--ATG
Fomln_011_0      -GGCTGCGATCATGCCGATCATTGGGTGCGGCGTTCTTGTCTGAGCGATGAAGGTCCGAGGGAATACCAAGACGAGTGTGTGGATACTGATGAGG--ATG
Fonic_001        -GGCTGCGAGCATGCCGATCATTGGGTGAGGCGTCATTGTCTAGGTAATGAAGGTCCGAGAGCATACGAAAACGAGTGCCAGGA------TGACG--ACG
Fonic_003        -GGCTGCGACCATGCCGATCATTGAGTGGCGCGTACTTGTCTGAGCGATATAGGTCCGAGGGAATACGAGGACGAGTGTCAG--------CGACCCGATG
Fonic_012        -GGCTGCGACCATGCCGATCATTGAGTGGCGCGTACTTGTCTGAGCGATATAGGTCCGAGGGAATACGAGGACGAGTGTCAG--------CGACCCGATG
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fp7328 rev< Fomln

Marker #20

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                501
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Folyc_069       GAAATC---CCTACGACGTGGATGGAATTTGTCTAGAGTTTACGTACTGCTCCGCGGTCATCGAACAGGAAAACGGGCACGAGATTCACGACATAATTTG
Folyc_002       GAAATC---CCTACGACGTGGATGGAATTTGTCTAGAGTTTACGTACTGCTCCGCGGTCATCGAACAGGAAAACGGGCACGAGATTCACGACATAATTTG
Folyc_016       GAAATC---CCTACGACGTGGATGGAATTTGTCTAGAGTTTACGTACTGCTCCGCGGTCATCGAACAGGAAAACGGGCACGAGATTCACGACATAATTTG
Folyc_038       GAAATC---CCTACGACGTGGATGGAATTTGTCTAGAGTTTACGTACTGCTCCGCGGTCATCGAACAGGAAAACGGGCACGAGATTCACGACATAATTTG
Folyc_072       GAAATC---CCTACGACGTGGATGGAATTTGTCTAGAGTTTACGTACTGCTCCGCGGTCATCGAACAGGAAAACGGGCACGAGATTCACGACATAATTTG
Folyc_073       GAAATC---CCTACGACGTGGATGGAATTTGTCTAGAGTTTACGTACTGCTCCGCGGTCATCGAACAGGAAAACGGGCACGAGATTCACGACATAATTTG
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Folyc_075       GAAATC---CCTACGACGTGGATGGAATTTGTCTAGAGTTTACGTACTGCTCCGCGGTCATCGAACAGGAAAACGGGCACGAGATTCACGACATAATTTG
Folyc_4287      GAAATC---CCTACGACGTGGATGGAATTTGTCTAGAGTTTACGTACTGCTCCGCGGTCATCGAACAGGAAAACGGGCACGAGATTCACGACATAATTTG
Folyc_MN25      GAAATC---CCTACGACGTGGATGGAATTTGTCTAGAGTTTACGTACTGCTCCGCGGTCATCGAACAGGAAAACGGGCACGAGATTCACGACATAATTTG
Folyc_004       GAAATC---CCTACGACGTGGATGGAATTTGTCTAGAGTTTACGTACTGCTCCGCGGTCATCGAACAGGAAAACGGGCACGAGATTCACGACATAATTTG
Folyc_007       GAAATC---CCTACGACGTGGATGGAATTTGTCTAGAGTTTACGTACTGCTCCGCGGTCATCGAACAGGAAAACGGGCACGAGATTCACGACATAATTTG
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Folyc_029       GAAATC---CCTACGACGTGGATGGAATTTGTCTAGAGTTTACGTACTGCTCCGCGGTCATCGAACAGGAAAACGGGCACGAGATTCACGACATAATTTG
Focub_B2        GAGAGG---AATACCAAGCGGATGGAATTTGTCCAGAGCTTACGTACTGCTCCGAGGTCATCGAACGGGGACATGAGCACCAGATTCACGACATAATTTG
Focub_II5       GAGAGG---AATACCAAGCGGATGGAATTTGTCCAGAGCTTACGTACTGCTCCGAGGTCATCGAACGGGGACATGAGCACCAGATTCACGACATAATTTG
Forap_PHW815_1  GAGAAA---TGTACAATGCGGATGGAATTTGTCCAGAGTATACGTACTGCTCTGACGTCATCGAAGCGGGCCATGCGCAC---------GACATAATTTG
Focon_5176      GAGATC---CTTACGAGGCGGATGGAATTTGTCCAGAGCTTACCCACTGCCTCGAGGTCATCAGACATGAAAATGGGCACGATGTTAGAGACATAGCTTG
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Forap_PHW815_0  ATAACG---TTTATCTGGCGGATGGAACTTGTCCAGAGCTTACGTACTGCTCCCCAACCGTCGAACAGGGACATGGGCACGCGATTCATGACATAATTTG
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Folag_001_0     AAGAGGTCTTCTATCAAGTGGATGGAATTTGCCCAGAGTTGACGTACTGCTCCGAGGTCATCGAACAGATAAATGGGGACGAGGTTCGCGACGTGATTTG
Folag_005_0     AAGAGGTCTTCTATCAAGTGGATGGAATTTGCCCAGAGTTGACGTACTGCTCCGAGGTCATCGAACAGATAAATGGGGACGAGGTTCGCGACGTGATTTG
Folag_002_0     AAGAGGTCTTCTATCAAGTGGATGGAATTTGCCCAGAGTTGACGTACTGCTCCGAGGTCATCGAACAGATAAATGGGGACGAGGTTCGCGACGTGATTTG
Folag_004_0     AAGAGGTCTTCTATCAAGTGGATGGAATTTGCCCAGAGTTGACGTACTGCTCCGAGGTCATCGAACAGATAAATGGGGACGAGGTTCGCGACGTGATTTG
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Fomom_004_2     GAGAGG---AGTACGAAGTGGATGGAATTTGTCCAGAGTTTACGTACTGCTCCGAGGTCGTCGAAGAGGGACATGAGCATGAGACTCAGGACATAATTTG
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Fomln_011_0     GAGAGG---AGTACGAAGTGGATGGAATTTGTCCAGAGTTTACGTACTGCTCCGAGGTCGTCGAAGAGGGACATGAGCATGAGACTCAGGACATAATTTG
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Marker #20

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Folyc_069       TATACCAGCCACGCCTCCAAAGGAGGACAATGTGCGAACCAATGGTAAAAAGGGTCAATATGGCTATAGGACTGTCGAGGCAGTCAGCCAGCGGGGAGTG
Folyc_002       TATACCAGCCACGCCTCCAAAGGAGGACAATGTGCGAACCAATGGTAAAAAGGGTCAATATGGCTATAGGACTGTCGAGGCAGTCAGCCAGCGGGGAGTG
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Folyc_038       TATACCAGCCACGCCTCCAAAGGAGGACAATGTGCGAACCAATGGTAAAAAGGGTCAATATGGCTATAGGACTGTCGAGGCAGTCAGCCAGCGGGGAGTG
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Focub_II5       TATGCCAGCCACGCCGCCAAGGGAAGACAATATAGGAACC---------AAGGGTCAATATGGCTATAGGACAGTTCAGGCAGTCAACCAGCGGGGAGTG
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Fomom_004_2     TGTGCCAGCCACGCCGCCAAGAGAGGACAATATAGGAACC---------AAGGGTCAATATGGCTATAGGAAGGTCGACGCAGTCATGCAGCGGGGAGTG
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Fomln_016       TGTGCCAGCCACGCCGCCAAGAGAGGACAATATAGGAACC---------AAGGGTCAATATGGCTATAGGAAGGTCGACGCAGTCATGCAGCGGGGAGTG
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Fomln_011_0     TGTGCCAGCCACGCCGCCAAGAGAGGACAATATAGGAACC---------AAGGGTCAATATGGCTATAGGAAGGTCGACGCAGTCATGCAGCGGGGAGTG
Fonic_001       TGTACCGGTCACGCCGCCAAGGGAGGACAATATGGGAACC--------AAGGGGTCAATATGGCTATAGGATTGTCAAGGCAGTCAGCCAGCGGGGAGTG
Fonic_003       TGCACCAGCCACGCCGCCAAGAGAGGACAATATGGGAACC--------AAGGGGTCAATATGGCTATAGGATTGTCAAGGCAGTCAGCCAGCGGGGAGTG
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Marker #20

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Folyc_069       ACCGAGTTGGAAAAGTCCATTCGTCTGCAGGAAGACATCCCAGGCGCTAGTGTGTCTGGTCACGTCCGGAGTAAGTGTATTCCGCCTCTATGGAATCCAT
Folyc_002       ACCGAGTTGGAAAAGTCCATTCGTCTGCAGGAAGACATCCCAGGCGCTAGTGTGTCTGGTCACGTCCGGAGTAAGTGTATTCCGCCTCTATGGAATCCAT
Folyc_016       ACCGAGTTGGAAAAGTCCATTCGTCTGCAGGAAGACATCCCAGGCGCTAGTGTGTCTGGTCACGTCCGGAGTAAGTGTATTCCGCCTCTATGGAATCCAT
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Folyc_007       ACCGAGTTGGAAAAGTCCATTCGTCTGCAGGAAGACATCCCAGGCGCTAGTGTGTCTGGTCACGTCCGGAGTAAGTGTATTCCGCCTCTATGGAATCCAT
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Folyc_018       ACCGAGTTGGAAAAGTCCATTCGTCTGCAGGAAGACATCCCAGGCGCTAGTGTGTCTGGTCACGTCCGGAGTAAGTGTATTCCGCCTCTATGGAATCCAT
Folyc_026       ACCGAGTTGGAAAAGTCCATTCGTCTGCAGGAAGACATCCCAGGCGCTAGTGTGTCTGGTCACGTCCGGAGTAAGTGTATTCCGCCTCTATGGAATCCAT
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Focub_B2        ACCGAGTTGGAAAAGTCTATTTCTCTGCAAGAAGACATCGCGGGCGCTAGTGTGTCTGGCCACGTCCGGAGTAAGTGTATTCCACTTCTACGAAATCCAT
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Forap_PHW815_1  ACCGAGTTGGAAAAGTCCATTCATCTGCAAGAAGACATCGCGGGCGCCAGTGTGTCTGGCCACGTCCGGAGTAAGCGTATTCCGGTTCTACGAAATCCAT
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Folag_002_0     ACCGAGTTGGAAAAGTCCATATCTCTGCAAGAGGACATCGCGGGCGCTAGTGTGTCTGGCCACGTCCGGAGTAAGTGTATTCCACTTCTACGAAACCCAT
Folag_004_0     ACCGAGTTGGAAAAGTCCATATCTCTGCAAGAGGACATCGCGGGCGCTAGTGTGTCTGGCCACGTCCGGAGTAAGTGTATTCCACTTCTACGAAACCCAT
Fomom_001_0     ACCGAGTTGGAAAAGTCCATATCTCTGCAAGAGGACATCGCGGGCGCTAGTGTGTCTGGCCACGTCCGGAGTAAGTGTATTCCACTTCTACGAAACCCAT
Fomom_004_0     ACCGAGTTGGAAAAGTCCATATCTCTGCAAGAGGACATCGCGGGCGCTAGTGTGTCTGGCCACGTCCGGAGTAAGTGTATTCCACTTCTACGAAACCCAT
Fogla_G76       ACCGAGTTGGGAAAGTCCATTGTTGTGCAAGAAGACATTGCGGGCGCTAGTGTGTCTGGCCACGTCCGGAGTAAGCGTATTCCACTTCTACGAAATCCAT
Fomom_001_2     ACTCAGTTGGAAAAGTCCATTTCTCTGCAAGAAGACATTGCGGGCGCAAGCGTGTCTGGCCACGTCCGGAGTAAGCGTATTCCACTTCTACGAAATCCAT
Fomom_004_3     ACTCAGTTGGAAAAGTCCATTTCTCTGCAAGAAGACATTGCGGGCGCAAGCGTGTCTGGCCACGTCCGGAG-----------------------------
Fomom_001_1     ACCGAGTTGGAAAAGTCCATTTCTTTGCAAGAAGACATCGCGGGCGCTAGTGTGTCTGGCCACGTCCGGAGTAAGTGTATTCCACTTCTACGAAATCCAT
Fomom_004_1     ACCGAGTTGGAAAAGTCCATTTCTTTGCAAGAAGACATCGCGGGCGCTAGTGTGTCTGGCCACGTCCGGAGTAAGTGTATTCCACTTCTACGAAATCCAT
Folil_39        ACCGAGTTGGGAAAGTCCATTGTTGTGCAAGAAGACATTGCGGGCGCTAGTGTGTCTGGCCACGTCCGGAGTAAGCGTATTCCACTTCTACGAAATCCAT
Folag_001_1     ACTCAGTTGGAAAAGTCCATTTCTCTGCAAGAAGACATTGCGGGCGCTAGCGTGTCTGGCCACGTCCGGAGTAAGCGTATTCCACTTCTACGAAATCCAT
Folag_002_1     ACTCAGTTGGAAAAGTCCATTTCTCTGCAAGAAGACATTGCGGGCGCTAGCGTGTCTGGCCACGTCCGGAGTAAGCGTATTCCACTTCTACGAAATCCAT
Folag_004_1     ACTCAGTTGGAAAAGTCCATTTCTCTGCAAGAAGACATTGCGGGCGCTAGCGTGTCTGGCCACGTCCGGAGTAAGCGTATTCCACTTCTACGAAATCCAT
Folag_005_1     ACTCAGTTGGAAAAGTCCATTTCTCTGCAAGAAGACATTGCGGGCGCTAGCGTGTCTGGCCACGTCCGGAGTAAGCGTATTCCACTTCTACGAAATCCAT
Fomom_001_3     ACTCAGTTGGAAAAGTCCATTTCTCTGCAAGAAGACATTGCGGGCGCTAGCGTGTCTGGCCACGTCCGGAG-----------------------------
Fomom_004_2     ACTCAGTTGGAAAAGTCCATTTCTCTGCAAGAAGACATTGCGGGCGCTAGCGTGTCTGGCCACGTCCGGAG-----------------------------
Fomln_006       ACTCAGTTGGAAAAGTCCATTTCTCTGCAAGAAGACATTGCGGGCGCTAGCGTGTCTGGCCACGTCCGGAGTAAGCGTATTCCACTTCTACGAAATCCAT
Fomln_012       ACTCAGTTGGAAAAGTCCATTTCTCTGCAAGAAGACATTGCGGGCGCTAGCGTGTCTGGCCACGTCCGGAGTAAGCGTATTCCACTTCTACGAAATCCAT
Fomln_013       ACTCAGTTGGAAAAGTCCATTTCTCTGCAAGAAGACATTGCGGGCGCTAGCGTGTCTGGCCACGTCCGGAGTAAGCGTATTCCACTTCTACGAAATCCAT
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Fomln_010       ACTCAGTTGGAAAAGTCCATTTCTCTGCAAGAAGACATTGCGGGCGCTAGCGTGTCTGGCCACGTCCGGAGTAAGCGTATTCCACTTCTACGAAATCCAT
Fomln_005       ACTCAGTTGGAAAAGTCCATTTCTCTGCAAGAAGACATTGCGGGCGCTAGCGTGTCTGGCCACGTCCGGAGTAAGCGTATTCCACTTCTACGAAATCCAT
Fomln_016       ACTCAGTTGGAAAAGTCCATTTCTCTGCAAGAAGACATTGCGGGCGCTAGCGTGTCTGGCCACGTCCGGAGTAAGCGTATTCCACTTCTACGAAATCCAT
Fomln_009_0     ACTCAGTTGGAAAAGTCCATTTCTCTGCAAGAAGACATTGCGGGCGCTAGCGTGTCTGGCCACGTCCGGAGTAAGCGTATTCCACTTCTACGAAATCCAT
Fomln_011_0     ACTCAGTTGGAAAAGTCCATTTCTCTGCAAGAAGACATTGCGGGCGCTAGCGTGTCTGGCCACGTCCGGAGTAAGCGTATTCCACTTCTACGAAATCCAT
Fonic_001       ACTAAGTTGGAAGAGTCCATTCGTCTGCAGGAAGACATCGCGGGCGCGAGTGTGTCTGGCCACGTCCGGAGTAAGGGTATTCTGCCTCTACGAAATCCCG
Fonic_003       ACTAAGTTGGAAGAGTCCATTCGTCTGCAGGAAGACATCGCGGGCGCGAGTGTGTCTGGCCACGTCCGGAGTAAGGGTATTCTGCCTCTACGAAATCCCG
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Marker #20

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                801
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Fomln_011_1     ATACATACTGACATAAATTAAGGCACCGATAGGACGTTTATTATCGACCCAGCTAACACGCTAACGGCTAATCTACACGGCTTCCAATTGAATGTCTGCA
Folyc_069       GTCTACACTGACACGAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATCTACATGGCTTCCAATTGAACGTCTGCA
Folyc_002       GTCTACACTGACACGAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATCTACATGGCTTCCAATTGAACGTCTGCA
Folyc_016       GTCTACACTGACACGAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATCTACATGGCTTCCAATTGAACGTCTGCA
Folyc_038       GTCTACACTGACACGAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATCTACATGGCTTCCAATTGAACGTCTGCA
Folyc_072       GTCTACACTGACACGAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATCTACATGGCTTCCAATTGAACGTCTGCA
Folyc_073       GTCTACACTGACACGAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATCTACATGGCTTCCAATTGAACGTCTGCA
Folyc_074       GTCTACACTGACACGAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATCTACATGGCTTCCAATTGAACGTCTGCA
Folyc_075       GTCTACACTGACACGAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATCTACATGGCTTCCAATTGAACGTCTGCA
Folyc_4287      GTCTACACTGACACGAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATCTACATGGCTTCCAATTGAACGTCTGCA
Folyc_MN25      GTCTACACTGACACGAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATCTACATGGCTTCCAATTGAACGTCTGCA
Folyc_004       GTCTACACTGACACGAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATCTACATGGCTTCCAATTGAACGTCTGCA
Folyc_007       GTCTACACTGACACGAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATCTACATGGCTTCCAATTGAACGTCTGCA
Folyc_014       GTCTACACTGACACGAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATCTACATGGCTTCCAATTGAACGTCTGCA
Folyc_018       GTCTACACTGACACGAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATCTACATGGCTTCCAATTGAACGTCTGCA
Folyc_026       GTCTACACTGACACGAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATCTACATGGCTTCCAATTGAACGTCTGCA
Folyc_029       GTCTACACTGACACGAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATCTACATGGCTTCCAATTGAACGTCTGCA
Focub_B2        GTCTACACTGACACAAATCAAGGCACCGATAGGACGTTTATTATCGACCCAGCTAACACGCTGACGGCTAATCTACACGGCTTCCAACTGAATGTCTGCA
Focub_II5       GTCTACACTGACACAAATCAAGGCACCGATAGGACGTTTATTATCGACCCAGCTAACACGCTGACGGCTAATCTACACGGCTTCCAACTGAATGTCTGCA
Forap_PHW815_1  GT--ACACTAATACAAATCAAGGCACCGATAGGACGTTTATTATCAACCCATCTAACACGCTGACAGCTAATCTACACGGCTTCCAACTAAATGTCTGCA
Focon_5176      GTATAAACTGACACAACTCAAGGCACCGATAGGACGTTTATCATCGACCCAGCTAACACGCTGACGGCTAATCTACACGGCTTCCAACTGAATGTCTGCA
Focon_PHW808    GTATAAACTGACACAACTCAAGGCACCGATAGGACGTTTATCATCGACCCAGCTAACACGCTGACGGCTAATCTACACGGCTTCCAACTGAATGTCTGCA
Forap_PHW815_0  GTCTACACTGACACAAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACACTGACGGCTAATCTACACGGCTTCCAACTGAATGTCTGCA
Fopis_HDV247    GTCTACGCTGACACAAATCAAGGCACCGATAGGACTTTTATTATCAACCCAGCTAACACGCTGACGGCTAATCTACACGGCTTCCAAGAGAATGTCTGCA
Folag_001_0     GTCTACACTGACACAAATCAAGGCACCGATAGGACGTTTATTATCGACCCAGCTAACACGCTGACGGCTAATCTACACGGCTTCCAACTGAATGTCTGCA
Folag_005_0     GTCTACACTGACACAAATCAAGGCACCGATAGGACGTTTATTATCGACCCAGCTAACACGCTGACGGCTAATCTACACGGCTTCCAACTGAATGTCTGCA
Folag_002_0     GTCTACACTGACACAAATCAAGGCACCGATAGGACGTTTATTATCGACCCAGCTAACACGCTGACGGCTAATCTACACGGCTTCCAACTGAATGTCTGCA
Folag_004_0     GTCTACACTGACACAAATCAAGGCACCGATAGGACGTTTATTATCGACCCAGCTAACACGCTGACGGCTAATCTACACGGCTTCCAACTGAATGTCTGCA
Fomom_001_0     GTCTACACTGACACAAATCAAGGCACCGATAGGACGTTTATTATCGACCCAGCTAACACGCTGACGGCTAATCTACACGGCTTCCAACTGAATGTCTGCA
Fomom_004_0     GTCTACACTGACACAAATCAAGGCACCGATAGGACGTTTATTATCGACCCAGCTAACACGCTGACGGCTAATCTACACGGCTTCCAACTGAATGTCTGCA
Fogla_G76       GTCTACACTGACACAAATCAAGGCACCGATAGGACGTTTATTATCGACCCAGCTAACACGCTCACGGCTAATCTACACGGCTTCCAACTGAATGTCTGCA
Fomom_001_2     GTCTACACTGACACAAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATTTACACGGCTTCCGACTGAATGTCTGCA
Fomom_004_3     ----------------------------------------------------------------------------------------------------
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Fomom_004_1     GTCTACACTGACACAAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATCTACACGGCTTCCGACTGAATGTCTGCA
Folil_39        GTCTACACTGACACAAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATCTACACGGCTTCCAACTGAATGTCTGCA
Folag_001_1     GTCTACACTGACACAAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATTTACACGGCTTCCGACTGAATGTCTGCA
Folag_002_1     GTCTACACTGACACAAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATTTACACGGCTTCCGACTGAATGTCTGCA
Folag_004_1     GTCTACACTGACACAAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATTTACACGGCTTCCGACTGAATGTCTGCA
Folag_005_1     GTCTACACTGACACAAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATTTACACGGCTTCCGACTGAATGTCTGCA
Fomom_001_3     ----------------------------------------------------------------------------------------------------
Fomom_004_2     ----------------------------------------------------------------------------------------------------
Fomln_006       GTCTACACTGACACAAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATTTACACGGCTTCCGACTGAATGTCTGCA
Fomln_012       GTCTACACTGACACAAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATTTACACGGCTTCCGACTGAATGTCTGCA
Fomln_013       GTCTACACTGACACAAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATTTACACGGCTTCCGACTGAATGTCTGCA
Fomln_001       GTCTACACTGACACAAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATTTACACGGCTTCCGACTGAATGTCTGCA
Fomln_004       GTCTACACTGACACAAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATTTACACGGCTTCCGACTGAATGTCTGCA
Fomln_010       GTCTACACTGACACAAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATTTACACGGCTTCCGACTGAATGTCTGCA
Fomln_005       GTCTACACTGACACAAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATTTACACGGCTTCCGACTGAATGTCTGCA
Fomln_016       GTCTACACTGACACAAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATTTACACGGCTTCCGACTGAATGTCTGCA
Fomln_009_0     GTCTACACTGACACAAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATTTACACGGCTTCCGACTGAATGTCTGCA
Fomln_011_0     GTCTACACTGACACAAATCAAGGCACCGATAGGACGTTTATTATCAACCCAGCTAACACGCTGACGGCTAATTTACACGGCTTCCGACTGAATGTCTGCA
Fonic_001       GTCTCCACTGACACGAATCAAGGCACCGATAGGACGTTTGTTATCAACCCAGCTAACACGCTGACGGCTAATCTACACGGCTTCCAACTGAATGTGTGCA
Fonic_003       GTCTCCACTGACACGAATCAAGGCACCGATAGGACGTTTGTTATCAACCCAGCTAACACGCTGACGGCTAATCTACACGGCTTCCAACTGAATGTGTGCA
Fonic_012       GTCTCCACTGACACGAATCAAGGCACCGATAGGACGTTTGTTATCAACCCAGCTAACACGCTGACGGCTAATCTACACGGCTTCCAACTGAATGTGTGCA
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Marker #20

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Fomln_009_1     AGGAAGAAAAGGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Fomln_011_1     AGGAAGAAAAGGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Folyc_069       AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACTATGATTCACGTATT
Folyc_002       AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACTATGATTCACGTATT
Folyc_016       AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACTATGATTCACGTATT
Folyc_038       AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACTATGATTCACGTATT
Folyc_072       AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACTATGATTCACGTATT
Folyc_073       AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACTATGATTCACGTATT
Folyc_074       AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACTATGATTCACGTATT
Folyc_075       AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACTATGATTCACGTATT
Folyc_4287      AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACTATGATTCACGTATT
Folyc_MN25      AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACTATGATTCACGTATT
Folyc_004       AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACTATGATTCACGTATT
Folyc_007       AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACTATGATTCACGTATT
Folyc_014       AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACTATGATTCACGTATT
Folyc_018       AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACTATGATTCACGTATT
Folyc_026       AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACTATGATTCACGTATT
Folyc_029       AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACTATGATTCACGTATT
Focub_B2        AGGAAGATAAAGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Focub_II5       AGGAAGATAAAGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Forap_PHW815_1  AGGAAGATAAGCGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTAGT
Focon_5176      AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Focon_PHW808    AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Forap_PHW815_0  AGGAAAACAAGGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Fopis_HDV247    AGGAAGATAAGGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Folag_001_0     AGGAAAATAAAGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Folag_005_0     AGGAAAATAAAGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Folag_002_0     AGGAAAATAAAGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Folag_004_0     AGGAAAATAAAGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Fomom_001_0     AGGAAAATAAAGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Fomom_004_0     AGGAAAATAAAGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Fogla_G76       AGGAAAATAAAGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Fomom_001_2     AGGAAGAGAAGGGCGACNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Fomom_004_3     ----------------------------------------------------------------------------------------------------
Fomom_001_1     AGGAAGATAAGGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Fomom_004_1     AGGAAGATAAGGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Folil_39        AGGAAGATAAGGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Folag_001_1     AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Folag_002_1     AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Folag_004_1     AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Folag_005_1     AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Fomom_001_3     ----------------------------------------------------------------------------------------------------
Fomom_004_2     ----------------------------------------------------------------------------------------------------
Fomln_006       AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Fomln_012       AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Fomln_013       AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Fomln_001       AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Fomln_004       AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Fomln_010       AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Fomln_005       AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Fomln_016       AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Fomln_009_0     AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Fomln_011_0     AGGAAGAGAAGGGCGAC--------------------------------------------------------------AAGCACCATGATTCACGTATT
Fonic_001       AGGAAGAGAAGGGCGA---------------------------------------------------------------AAGTACCATGATGCACGTATT
Fonic_003       AGGAAGAGAAGGGCGA---------------------------------------------------------------AAGTACCATGATGCACGTATT
Fonic_012       AGGAAGAGAAGGGCGA---------------------------------------------------------------AAGTACCATGATGCACGTATT
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Marker #20

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Folyc_069        TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGAGTGAGCAGAGCGGCATTCTGTTCTATGGTATCA
Folyc_002        TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGAGTGAGCAGAGCGGCATTCTGTTCTATGGTATCT
Folyc_016        TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGAGTGAGCAGAGCGGCATTCTGTTCTATGGTATCT
Folyc_038        TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGAGTGAGCAGAGCGGCATTCTGTTCTATGGTATCT
Folyc_072        TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGAGTGAGCAGAGCGGCATTCTGTTCTATGGTATCT
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Folyc_074        TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGAGTGAGCAGAGCGGCATTCTGTTCTATGGTATCT
Folyc_075        TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGAGTGAGCAGAGCGGCATTCTGTTCTATGGTATCT
Folyc_4287       TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGAGTGAGCAGAGCGGCATTCTGTTCTATGGTATCT
Folyc_MN25       TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGAGTGAGCAGAGCGGCATTCTGTTCTATGGTATCT
Folyc_004        TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGAGTGAGCAGAGCGGCATTCTGTTCTATGGTATCT
Folyc_007        TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGAGTGAGCAGAGCGGCATTCTGTTCTATGGTATCT
Folyc_014        TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGAGTGAGCAGAGCGGCATTCTGTTCTATGGTATCT
Folyc_018        TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGAGTGAGCAGAGCGGCATTCTGTTCTATGGTATCT
Folyc_026        TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGAGTGAGCAGAGCGGCATTCTGTTCTATGGTATCT
Folyc_029        TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGAGTGAGCAGAGCGGCATTCTGTTCTATGGTATCT
Focub_B2         TGCAAGCCTACCCGTCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTTCGTATCAGCAGAGCGGCATTCTGTTCTATGGCATCT
Focub_II5        TGCAAGCCTACCCGTCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTTCGTATCAGCAGAGCGGCATTCTGTTCTATGGCATCT
Forap_PHW815_1   TGCAAGCCTACCCGCCGAGTCGACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTCTTGAACGGTCAGAGCGGCATTCTGTTCTATGGCATCT
Focon_5176       TGCAAGCCTACGCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGCAGGAGCAAAGCGGCATCCTGTTCTATGACATCT
Focon_PHW808     TGCAAGCCTACGCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGCAGGAGCAAAGCGGCATCCTGTTCTATGACATCT
Forap_PHW815_0   TGCAAGCCTTCCCGCCGAGTCAACTTGAAGAAAGGCGAAACAATCGACTTTACATTCGGACTTACGCATATGCAGAGTGGCATTCTGTTCTATAGCATCT
Fopis_HDV247     TGCAAGCCTACCCGCCGAGTCAACCTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGAATCAGCAGAGCGGCATCCTGTTCTATGGCATCT
Folag_001_0      TGCAAGCCTACCCGTCGAGTGAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGACTGGGCAGAGCGGCATTCTGTTCTATGGCATCT
Folag_005_0      TGCAAGCCTACCCGTCGAGTGAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGACTGGGCAGAGCGGCATTCTGTTCTATGGCATCT
Folag_002_0      TGCAAGCCTACCCGTCGAGTGAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGACTGGGCAGAGCGGCATTCTGTTCTATGGCATCT
Folag_004_0      TGCAAGCCTACCCGTCGAGTGAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGACTGGGCAGAGCGGCATTCTGTTCTATGGCATCT
Fomom_001_0      TGCAAGCCTACCCGTCGAGTGAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGACTGGGCAGAGCGGCATTCTGTTCTATGGCATCT
Fomom_004_0      TGCAAGCCTACCCGTCGAGTGAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGACTGGGCAGAGCGGCATTCTGTTCTATGGCATCT
Fogla_G76        TGCAAGCCTACTCGTCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTTCGAATTCGCAGAGCGGCATTCTGTTCTATGGCATCT
Fomom_001_2      NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNCGGCATTCTGTTCTATGGCATCT
Fomom_004_3      ----------------------------------------------------------------------------------------------------
Fomom_001_1      TGCAAGCCTACCCGACGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGAGTGGGCAGAGCGGCATTCTGTTCTATGGCATCT
Fomom_004_1      TGCAAGCCTACCCGACGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGAGTGGGCAGAGCGGCATTCTGTTCTATGGCATCT
Folil_39         TGCAAGCCTACCCGACGAGTCGACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGAGTGAGCAGAGCGGCATTCTGTTCTATGGCATCT
Folag_001_1      TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGACTGGGCAGAGCGGCATTCTGTTCTATGGCATCT
Folag_002_1      TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGACTGGGCAGAGCGGCATTCTGTTCTATGGCATCT
Folag_004_1      TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGACTGGGCAGAGCGGCATTCTGTTCTATGGCATCT
Folag_005_1      TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGACTGGGCAGAGCGGCATTCTGTTCTATGGCATCT
Fomom_001_3      ----------------------------------------------------------------------------------------------------
Fomom_004_2      ----------------------------------------------------------------------------------------------------
Fomln_006        TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGACTGGGCAGAGCGGCATTCTGTTCTATGGCATCT
Fomln_012        TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGACTGGGCAGAGCGGCATTCTGTTCTATGGCATCT
Fomln_013        TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGACTGGGCAGAGCGGCATTCTGTTCTATGGCATCT
Fomln_001        TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGACTGGGCAGAGCGGCATTCTGTTCTATGGCATCT
Fomln_004        TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGACTGGGCAGAGCGGCATTCTGTTCTATGGCATCT
Fomln_010        TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGACTGGGCAGAGCGGCATTCTGTTCTATGGCATCT
Fomln_005        TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGACTGGGCAGAGCGGCATTCTGTTCTATGGCATCT
Fomln_016        TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGACTGGGCAGAGCGGCATTCTGTTCTATGGCATCT
Fomln_009_0      TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGACTGGGCAGAGCGGCATTCTGTTCTATGGCATCT
Fomln_011_0      TGCAAGCCTACCCGCCGAGTCAACTTGAAGAAAGGCAACACAATCGACTTTACATTCGGACTTACGACTGGGCAGAGCGGCATTCTGTTCTATGGCATCT
Fonic_001        TGCAAGCCTACCCGCCAAGTCAACTTGAAGAAACGCAATATTATCGACTTTACATTCGGACTTTCGTATTAGCAGAGCGGTATTCTGTTCTATGGCATCT
Fonic_003        TGCAAGCCTACCCGCCAAGTCAACTTGAAGAAACGCAATATTATCGACTTTACATTCGGACTTTCGTATTAGCAGAGCGGTATTCTGTTCTATGGCATCT
Fonic_012        TGCAAGCCTACCCGCCAGGTCAACTTGAAGAAACGCAATACAATCGACTTTACATTCGGACTTTCGTATTAGCAGAGCGGTATTCTGTTCTATGGCATCT
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Marker #20

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                1101
Fomln_009_1     TAAAGCCTTAAAACA--------------AGTTCAAGACAAGAGTTTAAAGCAGCTAAGGACTAAAGAAATTA--------------AGGGCTAGTGGCC
Fomln_011_1     TAAAGCCTTAAAACA--------------AGTTCAAGACAAGAGTTTAAAGCAGCTAAGGACTAAAGAAATTA--------------AGGGCTAGTGGCC
Folyc_069       TGAGCTCTTGAAACA--------------GGTTCAAGTCGAGGCTTTGCAGCGACGAAGGACTAAAAAAAATT-------------AATGGCTGGTGGCC
Folyc_002       TGAGCTCTTGAAACA--------------GGTTCAAGTCGAGGCTTTGCAGCGACGAAGGACTAAAAAAAATT-------------AATGGCTGGTGGCC
Folyc_016       TGAGCTCTTGAAACA--------------GGTTCAAGTCGAGGCTTTGCAGCGACGAAGGACTAAAAAAAATT-------------AATGGCTGGTGGCC
Folyc_038       TGAGCTCTTGAAACA--------------GGTTCAAGTCGAGGCTTTGCAGCGACGAAGGACTAAAAAAAATT-------------AATGGCTGGTGGCC
Folyc_072       TGAGCTCTTGAAACA--------------GGTTCAAGTCGAGGCTTTGCAGCGACGAAGGACTAAAAAAAATT-------------AATGGCTGGTGGCC
Folyc_073       TGAGCTCTTGAAACA--------------GGTTCAAGTCGAGGCTTTGCAGCGACGAAGGACTAAAAAAAATT-------------AATGGCTGGTGGCC
Folyc_074       TGAGCTCTTGAAACA--------------GGTTCAAGTCGAGGCTTTGCAGCGACGAAGGACTAAAAAAAATT-------------AATGGCTGGTGGCC
Folyc_075       TGAGCTCTTGAAACA--------------GGTTCAAGTCGAGGCTTTGCAGCGACGAAGGACTAAAAAAAATT-------------AATGGCTGGTGGCC
Folyc_4287      TGAGCTCTTGAAACA--------------GGTTCAAGTCGAGGCTTTGCAGCGACGAAGGACTAAAAAAAATT-------------AATGGCTGGTGGCC
Folyc_MN25      TGAGCTCTTGAAACA--------------GGTTCAAGTCGAGGCTTTGCAGCGACGAAGGACTAAAAAAAATT-------------AATGGCTGGTGGCC
Folyc_004       TGAGCTCTTGAAACA--------------GGTTCAAGTCGAGGCTTTGCAGCGACGAAGGACTAAAAAAAATT-------------AATGGCTGGTGGCC
Folyc_007       TGAGCTCTTGAAACA--------------GGTTCAAGTCGAGGCTTTGCAGCGACGAAGGACTAAAAAAAATT-------------AATGGCTGGTGGCC
Folyc_014       TGAGCTCTTGAAACA--------------GGTTCAAGTCGAGGCTTTGCAGCGACGAAGGACTAAAAAAAATT-------------AATGGCTGGTGGCC
Folyc_018       TGAGCTCTTGAAACA--------------GGTTCAAGTCGAGGCTTTGCAGCGACGAAGGACTAAAAAAAATT-------------AATGGCTGGTGGCC
Folyc_026       TGAGCTCTTGAAACA--------------GGTTCAAGTCGAGGCTTTGCAGCGACGAAGGACTAAAAAAAATT-------------AATGGCTGGTGGCC
Folyc_029       TGAGCTCTTGAAACA--------------GGTTCAAGTCGAGGCTTTGCAGCGACGAAGGACTAAAAAAAATT-------------AATGGCTGGTGGCC
Focub_B2        TGAGATCTTGAAACA--------------GGTTCAAGTCGAGGCTTTGA-------------------------------------------GGTGGCC
Focub_II5       TGAGATCTTGAAACA--------------GGTTCAAGTCGAGGCTTTGA-------------------------------------------GGTGGCC
Forap_PHW815_1  TGAGATCTTGAAACA--------------GGTTCCAGTCGAGGCTTTGCAGCGACTAAGGACCCCAAAAAAAT------------TAAGGGCTGGTGGCC
Focon_5176      TGAGATCTTGAAACA--------------GGTTCAAGTCAAGGCTTTGCAGCGACTAAGGACCAAAAAGATCA--------------AGGGCTGGTGGCC
Focon_PHW808    TGAGATCTTGAAACA--------------GGTTCAAGTCAAGGCTTTGCAGCGACTAAGGACCAAAAAGATCA--------------AGGGCTGGTGGCC
Forap_PHW815_0  TGAGATCTTGAAACA--------------GGTTCAAGTCGAGGCTTTGCAGCGACTAAGGACCAAAAGATTTA--------------AGGGCTGGTGGCC
Fopis_HDV247    TGAGATCTTGAAACC--------------GGTTCAAGTCGAGGCTTTACAGCGACTAAGGACCAAAAGAATTA--------------AGGGCTAGTGGCC
Folag_001_0     TGAGATCTTGAAACA--------------GGTTCAAGTCGAGGCTTTGCAGCGACTAAGGACCAAAAGAATTA-------------AAGGGCTGGTGGCC
Folag_005_0     TGAGATCTTGAAACA--------------GGTTCAAGTCGAGGCTTTGCAGCGACTAAGGACCAAAAGAATTA-------------AAGGGCTGGTGGCC
Folag_002_0     TGAGATCTTGAAACA--------------GGTTCAAGTCGAGGCTTTGCAGCGACTAAGGACCAAAAGAATTA-------------AAGGGCTGGTGGCC
Folag_004_0     TGAGATCTTGAAACA--------------GGTTCAAGTCGAGGCTTTGCAGCGACTAAGGACCAAAAGAATTA-------------AAGGGCTGGTGGCC
Fomom_001_0     TGAGATCTTGAAACA--------------GGTTCAAGTCGAGGCTTTGCAGCGACTAAGGACCAAAAGAATTA-------------AAGGGCTGGTGGCC
Fomom_004_0     TGAGATCTTGAAACA--------------GGTTCAAGTCGAGGCTTTGCAGCGACTAAGGACCAAAAGAATTA-------------AAGGGCTGGTGGCC
Fogla_G76       TGAGATCTTGAAACAGGTTTAAGTCGAGGGGTTCAAGTCGAGGCTTGGCAGCGACTAAGGACCAAAAAAATAA--------------AGGGCTGGT----
Fomom_001_2     TGAGGTCTTGAAACA--------------GGTTCAAGTTGAGGCTTTGCAGCGACTAAGGACCAAAAAATAAA-----AATAAAATAAGGGCTGGTGGCC
Fomom_004_3     ----------------------------------------------------------------------------------------------------
Fomom_001_1     TGAGTTCTTGAAACA--------------GGTTCAACTCGAGGCTTTGCAGCGACTAAGGACCAAAAAAAAAAAACAAAAAAAAACAAGGGCTGGTGGCC
Fomom_004_1     TGAGTTCTTGAAACA--------------GGTTCAACTCGAGGCTTTGCAGCGACTAAGGACCAAAAAAAAAAAACAAAAAAAAACAAGGGCTGGTGGCC
Folil_39        TGAGGTCTTGAAACA--------------GGTTCAACTCGAGGCTTTTCAGCGACTAAGGACCAAAAAAAAAAAGAAGAAAAAAATAAGGGCTGGTGGCC
Folag_001_1     TGAGGTCTTGAAACA--------------GGTTCAAGTTGAGGCTTTGCAGCGACTAAGGACCAAAAAATAAA-----AATAAAATAAGGGCTGGTGGCC
Folag_002_1     TGAGGTCTTGAAACA--------------GGTTCAAGTTGAGGCTTTGCAGCGACTAAGGACCAAAAAATAAA-----AATAAAATAAGGGCTGGTGGCC
Folag_004_1     TGAGGTCTTGAAACA--------------GGTTCAAGTTGAGGCTTTGCAGCGACTAAGGACCAAAAAATAAA-----AATAAAATAAGGGCTGGTGGCC
Folag_005_1     TGAGGTCTTGAAACA--------------GGTTCAAGTTGAGGCTTTGCAGCGACTAAGGACCAAAAAATAAA-----AATAAAATAAGGGCTGGTGGCC
Fomom_001_3     ----------------------------------------------------------------------------------------------------
Fomom_004_2     ----------------------------------------------------------------------------------------------------
Fomln_006       TGAGGTCTTGAAACA--------------GGTTCAAGTTGAGGCTTTGCAGCGACTAAGGACCAAAAAATAAA-----AATAAAATAAGGGCTGGTGGCC
Fomln_012       TGAGGTCTTGAAACA--------------GGTTCAAGTTGAGGCTTTGCAGCGACTAAGGACCAAAAAATAAA-----AATAAAATAAGGGCTGGTGGCC
Fomln_013       TGAGGTCTTGAAACA--------------GGTTCAAGTTGAGGCTTTGCAGCGACTAAGGACCAAAAAATAAA-----AATAAAATAAGGGCTGGTGGCC
Fomln_001       TGAGGTCTTGAAACA--------------GGTTCAAGTTGAGGCTTTGCAGCGACTAAGGACCAAAAAATAAA-----AATAAAATAAGGGCTGGTGGCC
Fomln_004       TGAGGTCTTGAAACA--------------GGTTCAAGTTGAGGCTTTGCAGCGACTAAGGACCAAAAAATAAA-----AATAAAATAAGGGCTGGTGGCC
Fomln_010       TGAGGTCTTGAAACA--------------GGTTCAAGTTGAGGCTTTGCAGCGACTAAGGACCAAAAAATAAA-----AATAAAATAAGGGCTGGTGGCC
Fomln_005       TGAGGTCTTGAAACA--------------GGTTCAAGTTGAGGCTTTGCAGCGACTAAGGACCAAAAAATAAA-----AATAAAATAAGGGCTGGTGGCC
Fomln_016       TGAGGTCTTGAAACA--------------GGTTCAAGTTGAGGCTTTGCAGCGACTAAGGACCAAAAAATAAA-----AATAAAATAAGGGCTGGTGGCC
Fomln_009_0     TGAGGTCTTGAAACA--------------GGTTCAAGTTGAGGCTTTGCAGCGACTAAGGACCAAAAAATAAA-----AATAAAATAAGGGCTGGTGGCC
Fomln_011_0     TGAGGTCTTGAAACA--------------GGTTCAAGTTGAGGCTTTGCAGCGACTAAGGACCAAAAAATAAA-----AATAAAATAAGGGCTGGTGGCC
Fonic_001       TGAGGTCTTAAAACA--------------TGTATAGGTCAAGGCTTTGCAGCGATTAAGGACGAAGAAATT---------------AAGAGCTGATGGCC
Fonic_003       TGAGGTCTTAAAACA--------------TGTATAGGTCAAGGCTTTGCAGCGATTAAGGACGAAGAAATT---------------AAGAGCTGATGGCC
Fonic_012       TGAGGTCTTAAAACA--------------TGTATAGGTCAAGGCTTTGCAGCGATTAAGGACGAAGAAATT---------------AAGAGCTGATGGCC
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Marker #20

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Fomln_009_1     TACCATCCAGGACCACCTAGTGGGCACCCCCACCTAAT---GGACCACCAAAATTTCAATCTTC------------CCATACAAAATCCAAA--------
Fomln_011_1     TACCATCCAGGACCACCTAGTGGGCACCCCCACCTAAT---GGACCACCAAAATTTCAATCTTC------------CCATACAAAATCCAAA--------
Folyc_069       CACTTTCAACAA----------GGCA--GCCACGGGA-----GACTT--GAGAT-CAGGCTTGC---------------TAATCAATCAACGGGTTTCAA
Folyc_002       CACTTTCAACAA----------GGCA--GCCACGGGA-----GACTT--GAGAT-CAGGCTTGC---------------TAATCAATCAACGGGTTTCAA
Folyc_016       CACTTTCAACAA----------GGCA--GCCACGGGA-----GACTT--GAGAT-CAGGCTTGC---------------TAATCAATCAACGGGTTTCAA
Folyc_038       CACTTTCAACAA----------GGCA--GCCACGGGA-----GACTT--GAGAT-CAGGCTTGC---------------TAATCAATCAACGGGTTTCAA
Folyc_072       CACTTTCAACAA----------GGCA--GCCACGGGA-----GACTT--GAGAT-CAGGCTTGC---------------TAATCAATCAACGGGTTTCAA
Folyc_073       CACTTTCAACAA----------GGCA--GCCACGGGA-----GACTT--GAGAT-CAGGCTTGC---------------TAATCAATCAACGGGTTTCAA
Folyc_074       CACTTTCAACAA----------GGCA--GCCACGGGA-----GACTT--GAGAT-CAGGCTTGC---------------TAATCAATCAACGGGTTTCAA
Folyc_075       CACTTTCAACAA----------GGCA--GCCACGGGA-----GACTT--GAGAT-CAGGCTTGC---------------TAATCAATCAACGGGTTTCAA
Folyc_4287      CACTTTCAACAA----------GGCA--GCCACGGGA-----GACTT--GAGAT-CAGGCTTGC---------------TAATCAATCAACGGGTTTCAA
Folyc_MN25      CACTTTCAACAA----------GGCA--GCCACGGGA-----GACTT--GAGAT-CAGGCTTGC---------------TAATCAATCAACGGGTTTCAA
Folyc_004       CACTTTCAACAA----------GGCA--GCCACGGGA-----GACTT--GAGAT-CAGGCTTGC---------------TAATCAATCAACGGGTTTCAA
Folyc_007       CACTTTCAACAA----------GGCA--GCCACGGGA-----GACTT--GAGAT-CAGGCTTGC---------------TAATCAATCAACGGGTTTCAA
Folyc_014       CACTTTCAACAA----------GGCA--GCCACGGGA-----GACTT--GAGAT-CAGGCTTGC---------------TAATCAATCAACGGGTTTCAA
Folyc_018       CACTTTCAACAA----------GGCA--GCCACGGGA-----GACTT--GAGAT-CAGGCTTGC---------------TAATCAATCAACGGGTTTCAA
Folyc_026       CACTTTCAACAA----------GGCA--GCCACGGGA-----GACTT--GAGAT-CAGGCTTGC---------------TAATCAATCAACGGGTTTCAA
Folyc_029       CACTTTCAACAA----------GGCA--GCCACGGGA-----GACTT--GAGAT-CAGGCTTGC---------------TAATCAATCAACGGGTTTCAA
Focub_B2        CACTTTCAACAA----------GGCA--GCTAC-----------CAT--GCAGTACCCACCTGCCGTA---------CGTACCCACCTACCGTACACCAA
Focub_II5       CACTTTCAACAA----------GGCA--GCTACCAT-------------GCAGTACCCACCTGCCGTA---------CGTACCCACCTACCGTACACCAA
Forap_PHW815_1  CACTTTCAACAA----------GGCA--GCCACTGGACTGGAGACTTGAGGGATACCGGTATGCGGTTG--------CCTATTCGGGCAGTGGAT-----
Focon_5176      CACTTTCAACAA----------GGCA--GCCACTGGA-----GACTTGAGAGATACCGGTATGCGGTTGTGTCA---AATATTGGGGTGAAAATC-----
Focon_PHW808    CACTTTCAACAA----------GGCA--GCCACTGGA-----GACTTGAGAGATACCGGTATGCGGTTGTGTCA---AATATTGGGGTGAAAATC-----
Forap_PHW815_0  CACTTTCAACAA----------GGCA--GCCACTGGA-----GACTT--GAGATACCGGTATGCGATTG--------CCAATTCGGGCAGTAAAT-----
Fopis_HDV247    CACTTTCAACAA----------GGCA--GCCACTGGA-----GACTTGAGAGATACCGGTATGCGGTTG--------CCTATTCGGGCAGTGGAT-----
Folag_001_0     CACTTTCAACAA----------GGCA--GCCACTGGA-----GACTT--GAGATACCGGTATGCGGTTG--------TATATTCGGACAGGGGAC-----
Folag_005_0     CACTTTCAACAA----------GGCA--GCCACTGGA-----GACTT--GAGATACCGGTATGCGGTTG--------TATATTCGGACAGGGGAC-----
Folag_002_0     CACTTTCAACAA----------GGCA--GCCACTGGA-----GACTT--GAGATACCGGTATGCGGTTG--------TATATTCGGACAGGGGAC-----
Folag_004_0     CACTTTCAACAA----------GGCA--GCCACTGGA-----GACTT--GAGATACCGGTATGCGGTTG--------TATATTCGGACAGGGGAC-----
Fomom_001_0     CACTTTCAACAA----------GGCA--GCCACTGGA-----GACTT--GAGATACCGGTATGCGGTTG--------TATATTCGGACAGGGGAC-----
Fomom_004_0     CACTTTCAACAA----------GGCA--GCCACTGGA-----GACTT--GAGATACCGGTATGCGGTTG--------TATATTCGGACAGGGGAC-----
Fogla_G76       ----------------------------CACTGGA-----GACTT--GAGATACCGGTATGCGGTTG--------CCTATTCGGGCAGTGGAT-----
Fomom_001_2     CACTTTCAACAA----------GGCA--GC------------------------------------------------------------------
Fomom_004_3     ------------------------------------------------------------------------------------------------
Fomom_001_1     CACTTTCAACAA----------GGCA--GCCACTGGA-----GACTT--GAGATATCGGTATGCGGTTG--------CCTATTCGGGTGGTCGAT-----
Fomom_004_1     CACTTTCAACAA----------GGCA--GCCACTGGA-----GACTT--GAGATATCGGTATGCGGTTG--------CCTATTCGGGTGGTCGAT-----
Folil_39        CACTTTCAACAA----------GGCA--GCCACTGGA-----GACTT--GAGATATCGGTATGCGGTTG--------CCTATTCGGGTGGTCGAT-----
Folag_001_1     CACTTTCAACAA----------GGCA--GCCACTGGA-----GACTT--GAGATACTGGTATGCGGTTGCCTATTGCCCTATTCGGGTGGTGGAT-----
Folag_002_1     CACTTTCAACAA----------GGCA--GCCACTGGA-----GACTT--GAGATACTGGTATGCGGTTGCCTATTGCCCTATTCGGGTGGTGGAT-----
Folag_004_1     CACTTTCAACAA----------GGCA--GCCACTGGA-----GACTT--GAGATACTGGTATGCGGTTGCCTATTGCCCTATTCGGGTGGTGGAT-----
Folag_005_1     CACTTTCAACAA----------GGCA--GCCACTGGA-----GACTT--GAGATACTGGTATGCGGTTGCCTATTGCCCTATTCGGGTGGTGGAT-----
Fomom_001_3     ------------------------------------------------------------------------------------------------
Fomom_004_2     ------------------------------------------------------------------------------------------------
Fomln_006       CACTTTCAACAA----------GGCA--GCCACTGGA-----GACTT--GAGATACTGGTATGCGGTTGCCTATTGCCCTATTCGGGTGGTGGAT-----
Fomln_012       CACTTTCAACAA----------GGCA--GCCACTGGA-----GACTT--GAGATACTGGTATGCGGTTGCCTATTGCCCTATTCGGGTGGTGGAT-----
Fomln_013       CACTTTCAACAA----------GGCA--GCCACTGGA-----GACTT--GAGATACTGGTATGCGGTTGCCTATTGCCCTATTCGGGTGGTGGAT-----
Fomln_001       CACTTTCAACAA----------GGCA--GCCACTGGA-----GACTT--GAGATACTGGTATGCGGTTGCCTATTGCCCTATTCGGGTGGTGGAT-----
Fomln_004       CACTTTCAACAA----------GGCA--GCCACTGGA-----GACTT--GAGATACTGGTATGCGGTTGCCTATTGCCCTATTCGGGTGGTGGAT-----
Fomln_010       CACTTTCAACAA----------GGCA--GCCACTGGA-----GACTT--GAGATACTGGTATGCGGTTGCCTATTGCCCTATTCGGGTGGTGGAT-----
Fomln_005       CACTTTCAACAA----------GGCA--GCCACTGGA-----GACTT--GAGATACTGGTATGCGGTTGCCTATTGCCCTATTCGGGTGGTGGAT-----
Fomln_016       CACTTTCAACAA----------GGCA--GCCACTGGA-----GACTT--GAGATACTGGTATGCGGTTGCCTATTGCCCTATTCGGGTGGTGGAT-----
Fomln_009_0     CACTTTCAACAA----------GGCA--GCCACTGGA-----GACTT--GAGATACTGGTATGCGGTTGCCTATTGCCCTATTCGGGTGGTGGAT-----
Fomln_011_0     CACTTTCAACAA----------GGCA--GCCACTGGA-----GACTT--GAGATACTGGTATGCGGTTGCCTATTGCCCTATTCGGGTGGTGGAT-----
Fonic_001       CGCTTTGAA-------------GGCA--GCCGCTGGA-----GACGGAAGAGAT--------GCGGTTG--------CATATTCGCGCAGTAGAT-----
Fonic_003       CGCTTTGAA-------------GGCA--GCCGCTGGA-----GACGGAAGAGAT--------GCGGTTG--------CATATTCGCGCAGTAGAT-----
Fonic_012       CGCTTTGAA-------------GGCA--GCCGCTGGA-----GACGGAAGAGAT--------GCGGTTG--------CATATTCGCGCAGTAGAT-----
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Marker #20

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              1301
Fomln_009_1      ---------------TATTGATGTCCG--------------------------
Fomln_011_1      ---------------TATTGATGTCC---------------------------
Folyc_069        ---------------TATTGAATGCAATATTGATTCA----------------
Folyc_002        ---------------TATTGAATGCAATATTGATTCA----------------
Folyc_016        ---------------TATTGAATGCAATATTGATTCA----------------
Folyc_038        ---------------TATTGAATGCAATATTGATTCA----------------
Folyc_072        ---------------TATTGAATGCAATATTGATTCA----------------
Folyc_073        ---------------TATTGAATGCAATATTGATTCA----------------
Folyc_074        ---------------TATTGAATGCAATATTGATTCA----------------
Folyc_075        ---------------TATTGAATGCAATATTGATTCA----------------
Folyc_4287       ---------------TATTGAATGCAATATTGATTCA----------------
Folyc_MN25       ---------------TATTGAATGCAATATTGATTCA----------------
Folyc_004        ---------------TATTGAATGCAATATTGATTCAA---------------
Folyc_007        ---------------TATTGAATGCAATATTGATTCAA---------------
Folyc_014        ---------------TATTGAATGCAATATTGATTCAA---------------
Folyc_018        ---------------TATTGAATGCAATATTGATTCAA---------------
Folyc_026        ---------------TATTGAATGCAATATTGATTCAA---------------
Folyc_029        ---------------TATTGAATGCAATATTGATTCAA---------------
Focub_B2         AAAAGATTTTCCCCATACAAAATGCCCAATTTCACTTATGATGAGAAAATGTC
Focub_II5        AAAAGATTTTCCCCATACAAAATGCCCAATTTCACTTATGATGAGAAAATGTC
Forap_PHW815_1   ---------------TATGGAAGCTCC--------------------------
Focon_5176       ---------------TGTCTTCTCCTTT-------------------------
Focon_PHW808     ---------------TGTCTTCTCCTTT-------------------------
Forap_PHW815_0   ---------------TATGGAAGCTCCAACAGCAAT-----------------
Fopis_HDV247     ---------------TATGGAAGCTCCAACAGCA-------------------
Folag_001_0      ---------------TATGGAAGCCTCAACAGCAA------------------
Folag_005_0      ---------------TATGGAAGCCTCAACAGCAA------------------
Folag_002_0      ---------------TATGGAAGCCTCAACAGCA-------------------
Folag_004_0      ---------------TATGGAAGCCTCAACAGCA-------------------
Fomom_001_0      ---------------TATGGAAGCCTCAACAGCA-------------------
Fomom_004_0      ---------------TATGGAAGCCTCAACAGCA-------------------
Fogla_G76        ---------------TATGGAAGCTCCAACAGCAACAATTCGA----------
Fomom_001_2      ------------------------------------------------------
Fomom_004_3      ------------------------------------------------------
Fomom_001_1      ---------------TTTGGAA------------------------------
Fomom_004_1      ---------------TTTGGA-------------------------------
Folil_39         ---------------TTTGGA-------------------------------
Folag_001_1      ---------------TATG----------------------------------
Folag_002_1      ---------------TATG----------------------------------
Folag_004_1      ---------------TATG----------------------------------
Folag_005_1      ---------------TATG----------------------------------
Fomom_001_3      ------------------------------------------------------
Fomom_004_2      ------------------------------------------------------
Fomln_006        ---------------TATG----------------------------------
Fomln_012        ---------------TATG----------------------------------
Fomln_013        ---------------TAT-----------------------------------
Fomln_001        ---------------TAT-----------------------------------
Fomln_004        ---------------TAT-----------------------------------
Fomln_010        ---------------TAT-----------------------------------
Fomln_005        ---------------TATG----------------------------------
Fomln_016        ---------------TATG----------------------------------
Fomln_009_0      ---------------TATG----------------------------------
Fomln_011_0      ---------------TAT-----------------------------------
Fonic_001        ---------------TATGGAAGCTTCAACAGCAACTATTCCGAG--------
Fonic_003        ---------------TATGGAAGCTTCAAC----------------------
Fonic_012        ---------------TATGGAAGCTTCAAC----------------------
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Marker #20

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Seaview [blocks=100 fontsize=7 A4] on Fri Mar 10 14:22:33 2017

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Fomln_001  TTGAATTGTGGCCGTGAGAGTATAAAGCCCAGGTGCCAACCTCTCTTTCCCAACATTCAATTCCGTCCTTCAACACACCCAGCTCCAATCTGTCTTTGCA
Fomln_004  TTGAATTGTGGCCGTGAGAGTATAAAGCCCAGGTGCCAACCTCTCTTTCCCAACATTCAATTCCGTCCTTCAACACACCCAGCTCCAATCTGTCTTTGCA
Fomln_005  TTGAATTGTGGCCGTGAGAGTATAAAGCCCAGGTGCCAACCTCTCTTTCCCAACATTCAATTCCGTCCTTCAACACACCCAGCTCCAATCTGTCTTTGCA
Fomln_006  TTGAATTGTGGCCGTGAGAGTATAAAGCCCAGGTGCCAACCTCTCTTTCCCAACATTCAATTCCGTCCTTCAACACACCCAGCTCCAATCTGTCTTTGCA
Fomln_011  TTGAATTGTGGCCGTGAGAGTATAAAGCCCAGGTGCCAACCTCTCTTTCCCAACATTCAATTCCGTCCTTCAACACACCCAGCTCCAATCTGTCTTTGCA
Fomln_012  TTGAATTGTGGCCGTGAGAGTATAAAGCCCAGGTGCCAACCTCTCTTTCCCAACATTCAATTCCGTCCTTCAACACACCCAGCTCCAATCTGTCTTTGCA
Fomln_009  -TGAATTGTGGCCGTGAGAGTATAAAGCCCAGGTGCCAACCTCTCTTTCCCAACATTCAATTCCGTCCTTCAACACACCCAGCTCCAATCTGTCTTTGCA
Fomln_013  -TGAATTGTGGCCGTGAGAGTATAAAGCCCAGGTGCCAACCTCTCTTTCCCAACATTCAATTCCGTCCTTCAACACACCCAGCTCCAATCTGTCTTTGCA
Fomln_016  -TGAATTGTGGCCGTGAGAGTATAAAGCCCAGGTGCCAACCTCTCTTTCCCAACATTCAATTCCGTCCTTCAACACACCCAGCTCCAATCTGTCTTTGCA
Fomln_010  -TGAATTGTGGCCGTGAGAGTATAAAGCCCAGGTGCCAACCTCTCTTTCCCAACATTCAATTCCGTCCTTCAACACACCCAGCTCCAATCTGTCTTTGCA
Foniv_002  -TGAATTGTGGCCGTGAGAGTATAAAGCCCAGGTGCCAACCTCTCTTTCCCAACATTCAATTCCGTCCTTCAACACACCCAGCTCCAATCTGTCTTTGCA
Foniv_005  -TGAATTGTGGCCGTGAGAGTATAAAGCCCAGGTGCCAACCTCTCTTTCCCAACATTCAATTCCGTCCTTCAACACACCCAGCTCCAATCTGTCTTTGCA
Foniv_015  -TGAATTGTGGCCGTGAGAGTATAAAGCCCAGGTGCCAACCTCTCTTTCCCAACATTCAATTCCGTCCTTCAACACACCCAGCTCCAATCTGTCTTTGCA
Foniv_019  -TGAATTGTGGCCGTGAGAGTATAAAGCCCAGGTGCCAACCTCTCTTTCCCAACATTCAATTCCGTCCTTCAACACACCCAGCTCCAATCTGTCTTTGCA
Foniv_037  -TGAATTGTGGCCGTGAGAGTATAAAGCCCAGGTGCCAACCTCTCTTTCCCAACATTCAATTCCGTCCTTCAACACACCCAGCTCCAATCTGTCTTTGCA
Foniv_010  TTGAATTGTGGCCGTGAGAGTATAAAGCCCAGGTGCCAACCTCTCTTTCCCAACATTCAATTCCGTCCTTCAACACACCCAGCTCCAATCTGTCTTTGCA
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Foniv_020  TTGAATTGTGGCCGTGAGAGTATAAAGCCCAGGTGCCAACCTCTCTTTCCCAACATTCAATTCCGTCCTTCAACACACCCAGCTCCAATCTGTCTTTGCA
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         101
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Fomln_001  TCATAGTTTCCATAACCTCCAGTCACT--CACTCATCCTGTATCCATCCACAATGCAATTCTCATTCATTAGTGCAGCTTTTCTCCTCGTCTTTCCTCCG
Fomln_004  TCATAGTTTCCATAACCTCCAGTCACT--CACTCATCCTGTATCCATCCACAATGCAATTCTCATTCATTAGTGCAGCTTTTCTCCTCGTCTTTCCTCCG
Fomln_005  TCATAGTTTCCATAACCTCCAGTCACT--CACTCATCCTGTATCCATCCACAATGCAATTCTCATTCATTAGTGCAGCTTTTCTCCTCGTCTTTCCTCCG
Fomln_006  TCATAGTTTCCATAACCTCCAGTCACT--CACTCATCCTGTATCCATCCACAATGCAATTCTCATTCATTAGTGCAGCTTTTCTCCTCGTCTTTCCTCCG
Fomln_011  TCATAGTTTCCATAACCTCCAGTCACT--CACTCATCCTGTATCCATCCACAATGCAATTCTCATTCATTAGTGCAGCTTTTCTCCTCGTCTTTCCTCCG
Fomln_012  TCATAGTTTCCATAACCTCCAGTCACT--CACTCATCCTGTATCCATCCACAATGCAATTCTCATTCATTAGTGCAGCTTTTCTCCTCGTCTTTCCTCCG
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Fomln_013  TCATAGTTTCCATAACCTCCAGTCACT--CACTCATCCTGTATCCATCCACAATGCAATTCTCATTCATTAGTGCAGCTTTTCTCCTCGTCTTTCCTCCG
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Fomln_010  TCATAGTTTCCATAACCTCCAGTCACT--CACTCATCCTGTATCCATCCACAATGCAATTCTCATTCATTAGTGCAGCTTTTCTCCTCGTCTTTCCTCCG
Foniv_002  TCATAGTTTCCATAACCTCCAGTCACT--CACTCATCCTGTATCCATCCACAATGCAATTCTCATTCATTAGTGCAGCTTTTCTCCTCGTCTTTCCTCCG
Foniv_005  TCATAGTTTCCATAACCTCCAGTCACT--CACTCATCCTGTATCCATCCACAATGCAATTCTCATTCATTAGTGCAGCTTTTCTCCTCGTCTTTCCTCCG
Foniv_015  TCATAGTTTCCATAACCTCCAGTCACT--CACTCATCCTGTATCCATCCACAATGCAATTCTCATTCATTAGTGCAGCTTTTCTCCTCGTCTTTCCTCCG
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Foniv_013  TCATAGTTTCCATAACCTCCAGTCACT--CACTCATCCTGTATCCATCCACAATGCAATTCTCATTCATTAGTGCAGCTTTTCTCCTCGTCTTTCCTCCG
Foniv_020  TCATAGTTTCCATAACCTCCAGTCACT--CACTCATCCTGTATCCATCCACAATGCAATTCTCATTCATTAGTGCAGCTTTTCTCCTCGTCTTTCCTCCG
Foniv_021  TCATAGTTTCCATAACCTCCAGTCACT--CACTCATCCTGTATCCATCCACAATGCAATTCTCATTCATTAGTGCAGCTTTTCTCCTCGTCTTTCCTCCG
                                                                                  fp7312 fwd> Fomln+Foniv
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Fomln_004  GCCTGGGGTTATGAGGTTGCCACGGACAACTGCTGCCAGGCCCAACTCGAGGCATGCCACAAGCAGGGTGCAAACGCTTGCATGTGGACTAACGCCGCCA
Fomln_005  GCCTGGGGTTATGAGGTTGCCACGGACAACTGCTGCCAGGCCCAACTCGAGGCATGCCACAAGCAGGGTGCAAACGCTTGCATGTGGACTAACGCCGCCA
Fomln_006  GCCTGGGGTTATGAGGTTGCCACGGACAACTGCTGCCAGGCCCAACTCGAGGCATGCCACAAGCAGGGTGCAAACGCTTGCATGTGGACTAACGCCGCCA
Fomln_011  GCCTGGGGTTATGAGGTTGCCACGGACAACTGCTGCCAGGCCCAACTCGAGGCATGCCACAAGCAGGGTGCAAACGCTTGCATGTGGACTAACGCCGCCA
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Fomln_013  GCCTGGGGTTATGAGGTTGCCACGGACAACTGCTGCCAGGCCCAACTCGAGGCATGCCACAAGCAGGGTGCAAACGCTTGCATGTGGACTAACGCCGCCA
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Fomln_010  GCCTGGGGTTATGAGGTTGCCACGGACAACTGCTGCCAGGCCCAACTCGAGGCATGCCACAAGCAGGGTGCAAACGCTTGCATGTGGACTAACGCCGCCA
Foniv_002  GCCTGGGGTTATGAGGTTGCCACGGACAACTGCTGCCAGGCCCAACTCGAGGCATGCCACAAGCAGGGTGCAAACGCTTGCATGTGGACTAACGCCGCCA
Foniv_005  GCCTGGGGTTATGAGGTTGCCACGGACAACTGCTGCCAGGCCCAACTCGAGGCATGCCACAAGCAGGGTGCAAACGCTTGCATGTGGACTAACGCCGCCA
Foniv_015  GCCTGGGGTTATGAGGTTGCCACGGACAACTGCTGCCAGGCCCAACTCGAGGCATGCCACAAGCAGGGTGCAAACGCTTGCATGTGGACTAACGCCGCCA
Foniv_019  GCCTGGGGTTATGAGGTTGCCACGGACAACTGCTGCCAGGCCCAACTCGAGGCATGCCACAAGCAGGGTGCAAACGCTTGCATGTGGACTAACGCCGCCA
Foniv_037  GCCTGGGGTTATGAGGTTGCCACGGACAACTGCTGCCAGGCCCAACTCGAGGCATGCCACAAGCAGGGTGCAAACGCTTGCATGTGGACTAACGCCGCCA
Foniv_010  GCCTGGGGTTATGAGGTTGCCACGGACAACTGCTGCCAGGCCCAACTCGAGGCATGCCACAAGCAGGGTGCAAACGCTTGCATGTGGACTAACGCCGCCA
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Foniv_020  GCCTGGGGTTATGAGGTTGCCACGGACAACTGCTGCCAGGCCCAACTCGAGGCATGCCACAAGCAGGGTGCAAACGCTTGCATGTGGACTAACGCCGCCA
Foniv_021  GCCTGGGGTTATGAGGTTGCCACGGACAACTGCTGCCAGGCCCAACTCGAGGCATGCCACAAGCAGGGTGCAAACGCTTGCATGTGGACTAACGCCGCCA

         301
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Fomln_004  TCTGCGTCGACAACCCGAAGAACCACAAACCGGTTGACGAAACTTGTCTGAAGGCATGCCCAGACGCCACTGTCAAGAACCCTAACGGTTTTCTATACAA
Fomln_005  TCTGCGTCGACAACCCGAAGAACCACAAACCGGTTGACGAAACTTGTCTGAAGGCATGCCCAGACGCCACTGTCAAGAACCCTAACGGTTTTCTATACAA
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Fomln_011  TCTGCGTCGACAACCCGAAGAACCACAAACCGGTTGACGAAACTTGTCTGAAGGCATGCCCAGACGCCACTGTCAAGAACCCTAACGGTTTTCTATACAA
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Fomln_016  TCTGCGTCGACAACCCGAAGAACCACAAACCGGTTGACGAAACTTGTCTGAAGGCATGCCCAGACGCCACTGTCAAGAACCCTAACGGTTTTCTATACAA
Fomln_010  TCTGCGTCGACAACCCGAAGAACCACAAACCGGTTGACGAAACTTGTCTGAAGGCATGCCCAGACGCCACTGTCAAGAACCCTAACGGTTTTCTATACAA
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Foniv_005  TCTGCGTCGACAACCCGAAGAACCACAAACCGGTTGACGAAACTTGTCTGAAGGCATGCCCAGACGCCACTGTCAAGAACCCTAACGGTTTTCTATACAA
Foniv_015  TCTGCGTCGACAACCCGAAGAACCACAAACCGGTTGACGAAACTTGTCTGAAGGCATGCCCAGACGCCACTGTCAAGAACCCTAACGGTTTTCTATACAA
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Foniv_020  TCTGCGTCGACAACCCGAAGAACCACAAACCGGTTGACGAAACTTGTCTGAAGGCATGCCCAGACGCCACTGTCAAGAACCCTAACGGTTTTCTATACAA
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Fomln_006  GTTTCAGAAGCATGGGTACGTCGGGCTGGCATCTTAGTACCCAAATATTACCACTTGACTAACCACTGTCCCAGTGCCCCTGCCGGTGATTGCGTCTGCG
Fomln_011  GTTTCAGAAGCATGGGTACGTCGGGCTGGCATCTTAGTACCCAAATATTACCACTTGACTAACCACTGTCCCAGTGCCCCTGCCGGTGATTGCGTCTGCG
Fomln_012  GTTTCAGAAGCATGGGTACGTCGGGCTGGCATCTTAGTACCCAAATATTACCACTTGACTAACCACTGTCCCAGTGCCCCTGCCGGTGATTGCGTCTGCG
Fomln_009  GTTTCAGAAGCATGGGTACGTCGGGCTGGCATCTTAGTACCCAAATATTACCACTTGACTAACCACTGTCCCAGTGCCCCTGCCGGTGATTGCGTCTGCG
Fomln_013  GTTTCAGAAGCATGGGTACGTCGGGCTGGCATCTTAGTACCCAAATATTACCACTTGACTAACCACTGTCCCAGTGCCCCTGCCGGTGATTGCGTCTGCG
Fomln_016  GTTTCAGAAGCATGGGTACGTCGGGCTGGCATCTTAGTACCCAAATATTACCACTTGACTAACCACTGTCCCAGTGCCCCTGCCGGTGATTGCGTCTGCG
Fomln_010  GTTTCAGAAGCATGGGTACGTCGGGCTGGCATCTTAGTACCCAAATATTACCACTTGACTAACCACTGTCCCAGTGCCCCTGCCGGTGATTGCGTCTGCG
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Foniv_020  GTTTCAGAAGCATGGGTACGTCGGGCTGGCATCTTAGTACCCAAATATTACCACTTGACTAACCACTGTCCCAGTGCCCCTGCCGGTGATTGCGTCTGCG
Foniv_021  GTTTCAGAAGCATGGGTACGTCGGGCTGGCATCTTAGTACCCAAATATTACCACTTGACTAACCACTGTCCCAGTGCCCCTGCCGGTGATTGCGTCTGCG
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Marker #18

fp7329 rev< Fomln+Foniv

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          501
Folil_39   GAAACTTTAACCCCAACCTGGGCAGATACTGCCAAGGCGGCTAGGCTACCATCGCCACAAAGAATCAATGAAATTCTCTTATAGCTGAAGTATTG-----
Fomln_001  GAAACCTGAACCCCAACCTAAGCAAGTACTGCTACGGCGGCTAGGCCACCATCACCACGAAGTATTCATAGAATTCTTTCGTAGCTGAAGTATGGATGAT
Fomln_004  GAAACCTGAACCCCAACCTAAGCAAGTACTGCTACGGCGGCTAGGCCACCATCACCACGAAGTATTCATAGAATTCTTTCGTAGCTGAAGTATGGATGAT
Fomln_005  GAAACCTGAACCCCAACCTAAGCAAGTACTGCTACGGCGGCTAGGCCACCATCACCACGAAGTATTCATAGAATTCTTTCGTAGCTGAAGTATGGATGAT
Fomln_006  GAAACCTGAACCCCAACCTAAGCAAGTACTGCTACGGCGGCTAGGCCACCATCACCACGAAGTATTCATAGAATTCTTTCGTAGCTGAAGTATGGATGAT
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Fomln_016  GAAACCTGAACCCCAACCTAAGCAAGTACTGCTACGGCGGCTAGGCCACCATCACCACGAAGTATTCATAGAATTCTTTCGTAGCTGAAGTATGGATGAT
Fomln_010  GAAACCTGAACCCCAACCTAAGCAAGTACTGCTACGGCGGCTAGGCCACCATCACCACGAAGCATTCATAGAATTCTTTCGTAGCTGAAGTATGGATGAT
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Foniv_005  GAAACCTGAACCCCAACCTAAGCAAGTACTGCTACGGCGGCTAGGCCACCATCACCACGAAGCATTCATAGAATTCTTTCGTAGCTGAAGTATGGATGAT
Foniv_015  GAAACCTGAACCCCAACCTAAGCAAGTACTGCTACGGCGGCTAGGCCACCATCACCACGAAGCATTCATAGAATTCTTTCGTAGCTGAAGTATGGATGAT
Foniv_019  GAAACCTGAACCCCAACCTAAGCAAGTACTGCTACGGCGGCTAGGCCACCATCACCACGAAGCATTCATAGAATTCTTTCGTAGCTGAAGTATGGATGAT
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Foniv_020  GAAACCTGAACCCCAACCTAAGCAAGTACTGCTACGGCGGCTAGGCCACCATCACCACGAAGCATTCATAGAATTCTTTCGTAGCTGAAGTATGGATGAT
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          601
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Fomln_001  CATGCTTATATAGTTATCAATTAGCTTTATGACTATA---------GTAACAAG-ATTTTACAGTAAAGCTTATTTTTAAAGTCTGACCGTA-----TTT
Fomln_004  CATGCTTATATAGTTATCAATTAGCTTTATGACTATA---------GTAACAAG-ATTTTACAGTAAAGCTTATTTTTAAAGTCTGACCGTA-----TTT
Fomln_005  CATGCTTATATAGTTATCAATTAGCTTTATGACTATA---------GTAACAAG-ATTTTACAGTAAAGCTTATTTTTAAAGTCTGACCGTA-----TTT
Fomln_006  CATGCTTATATAGTTATCAATTAGCTTTATGACTATA---------GTAACAAG-ATTTTACAGTAAAGCTTATTTTTAAAGTCTGACCGTA-----TTT
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Fomln_013  CATGCTTATATAGTTATCAATTAGCTTTATGACTATA---------GTAACAAG-ATTTTACAGTAAAGCTTATTTTTAAAGTCTGACCGTA-----TTT
Fomln_016  CATGCTTATATAGTTATCAATTAGCTTTATGACTATA---------GTAACAAG-ATTTTACAGTAAAGCTTATTTTTAAAGTCTGACCGTA-----TTT
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Foniv_002  CATGCTTATATAGTTATCAATTAGCTTTATGACTATA---------GTAACAAG-ATTTTACAGTAAAGCTTATTTTTAAAATCTGACCGTA-----TTT
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Foniv_013  CATGCTTATATAGTTATCAATTAGCTTTATGACTATA---------GTAACAAG-ATTTTACAGTAAAGCTTATTTTTAAAATCTGACCGTA-----TTT
Foniv_020  CATGCTTATATAGTTATCAATTAGCTTTATGACTATA---------GTAACAAG-ATTTTACAGTAAAGCTTATTTTTAAAATCTGACCGTA-----TTT
Foniv_021  CATGCTTATATAGTTATCAATTAGCTTTATGACTATA---------GTAACAAG-ATTTTACAGTAAAGCTTATTTTTAAAATCTGACCGTA-----TTT

          701
Folil_39   TACGCCCGGGA
Fomln_001  TCCGTATG---
Fomln_004  TCCGTATG---
Fomln_005  TCCGTATG---
Fomln_006  TCCGTATG---
Fomln_011  TCCGTATG---
Fomln_012  TCCGTATG---
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Fomln_016  TCCGTATGT--
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Foniv_005  TCCGTATGT--
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Foniv_010  TCCGTATG---
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Foniv_020  TCCGTATG---
Foniv_021  TCCGTATG---
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Marker #18

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                  1
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Fomln_010         TCATCTGTATCTCTTATTAATTCAAATTTTAGTTCGTGTCTTAAAGCTATACATTCTACTAAAGGCAGCTTCTTTCTATCCTAACAGCTACCTAATCTAA
Foniv_015         TCATCTGTATCTCTTATTAATTCAAATTTTAGTTCGTGTCTTAAAGCTATACATTCTACTAAAGGCAGCTTCTTTCTATCCTAACAGCTACCTAATCTAA
Foniv_019         TCATCTGTATCTCTTATTAATTCAAATTTTAGTTCGTGTCTTAAAGCTATACATTCTACTAAAGGCAGCTTCTTTCTATCCTAACAGCTACCTAATCTAA
Foniv_037         TCATCTGTATCTCTTATTAATTCAAATTTTAGTTCGTGTCTTAAAGCTATACATTCTACTAAAGGCAGCTTCTTTCTATCCTAACAGCTACCTAATCTAA
Foniv_005         -CATCTGTATCTCTTATTAATTCAAATTTTAGTTCGTGTCTTAAAGCTATACATTCTACTAAAGGCAGCTTCTTTCTATCCTAACAGCTACCTAATCTAA
Foniv_010         -CATCTGTATCTCTTATTAATTCAAATTTTAGTTCGTGTCTTAAAGCTATACATTCTACTAAAGGCAGCTTCTTTCTATCCTAACAGCTACCTAATCTAA
Foniv_013         -CATCTGTATCTCTTATTAATTCAAATTTTAGTTCGTGTCTTAAAGCTATACATTCTACTAAAGGCAGCTTCTTTCTATCCTAACAGCTACCTAATCTAA
Foniv_020         -CATCTGTATCTCTTATTAATTCAAATTTTAGTTCGTGTCTTAAAGCTATACATTCTACTAAAGGCAGCTTCTTTCTATCCTAACAGCTACCTAATCTAA
Foniv_021         -CATCTGTATCTCTTATTAATTCAAATTTTAGTTCGTGTCTTAAAGCTATACATTCTACTAAAGGCAGCTTCTTTCTATCCTAACAGCTACCTAATCTAA
Foniv_002         -CATCTGTATCTCTTATTAATTCAAATTTTAGTTCGTGTCTTAAAGCTATACATTCTACTAAAGGCAGCTTCTTTCTATCCTAACAGCTACCTAATCTAA

                101
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Fomln_010         CTATTTACTTACTTATCTTCCTCTATTAGTCTCCAGACTTAAGCTTCAAAATGAAGCTTATTGTTATATCCCTTACCAGTATGATTTTGCTAGCTTCAGC
Foniv_015         CTATTTACTTACTTATCTTCCTCTATTAGTCTCCAGACTTAAGCTTCAAAATGAAGCTTATTGTTATATCCCTTACCAGTATGATTTTGCTAGCTTCAGC
Foniv_019         CTATTTACTTACTTATCTTCCTCTATTAGTCTCCAGACTTAAGCTTCAAAATGAAGCTTATTGTTATATCCCTTACCAGTATGATTTTGCTAGCTTCAGC
Foniv_037         CTATTTACTTACTTATCTTCCTCTATTAGTCTCCAGACTTAAGCTTCAAAATGAAGCTTATTGTTATATCCCTTACCAGTATGATTTTGCTAGCTTCAGC
Foniv_005         CTATTTACTTACTTATCTTCCTCTATTAGTCTCCAGACTTAAGCTTCAAAATGAAGCTTATTGTTATATCCCTTACCAGTATGATTTTGCTAGCTTCAGC
Foniv_010         CTATTTACTTACTTATCTTCCTCTATTAGTCTCCAGACTTAAGCTTCAAAATGAAGCTTATTGTTATATCCCTTACCAGTATGATTTTGCTAGCTTCAGC
Foniv_013         CTATTTACTTACTTATCTTCCTCTATTAGTCTCCAGACTTAAGCTTCAAAATGAAGCTTATTGTTATATCCCTTACCAGTATGATTTTGCTAGCTTCAGC
Foniv_020         CTATTTACTTACTTATCTTCCTCTATTAGTCTCCAGACTTAAGCTTCAAAATGAAGCTTATTGTTATATCCCTTACCAGTATGATTTTGCTAGCTTCAGC
Foniv_021         CTATTTACTTACTTATCTTCCTCTATTAGTCTCCAGACTTAAGCTTCAAAATGAAGCTTATTGTTATATCCCTTACCAGTATGATTTTGCTAGCTTCAGC
Foniv_002         CTATTTACTTACTTATCTTCCTCTATTAGTCTCCAGACTTAAGCTTCAAAATGAAGCTTATTGTTATATCCCTTACCAGTATGATTTTGCTAGCTTCAGC

                201
Fopis_HDV247      TGCTCCAATGGTTTCTAATCCAGCATTCCCTCTACCACTTGAAAGTGACAAAGGGTTAGACCTAGCTCTGGACAAGCGAGCTATACTGGCTTCCGAGAGG
Fomln_010         AGTTCCAATGGCGTCTAATCCAGCATTACCTCTACCACTTGAAAGTGACAAAGGGCTAGACCTAGCTCTGTACAAGCGAGCTATACTGGCTTCTGAGAGG
Foniv_015         AGTTCCAATGGCGTCTAATCCAGCATTACCTCTACCACTTGAAAGTGACAAAGGGCTAGACCTAGCTCTGTACAAGCGAGCTATACTGGCTTCTGAGAGG
Foniv_019         AGTTCCAATGGCGTCTAATCCAGCATTACCTCTACCACTTGAAAGTGACAAAGGGCTAGACCTAGCTCTGTACAAGCGAGCTATACTGGCTTCTGAGAGG
Foniv_037         AGTTCCAATGGCGTCTAATCCAGCATTACCTCTACCACTTGAAAGTGACAAAGGGCTAGACCTAGCTCTGTACAAGCGAGCTATACTGGCTTCTGAGAGG
Foniv_005         AGTTCCAATGGCGTCTAATCCAGCATTACCTCTACCACTTGAAAGTGACAAAGGGCTAGACCTAGCTCTGTACAAGCGAGCTATACTGGCTTCTGAGAGG
Foniv_010         AGTTCCAATGGCGTCTAATCCAGCATTACCTCTACCACTTGAAAGTGACAAAGGGCTAGACCTAGCTCTGTACAAGCGAGCTATACTGGCTTCTGAGAGG
Foniv_013         AGTTCCAATGGCGTCTAATCCAGCATTACCTCTACCACTTGAAAGTGACAAAGGGCTAGACCTAGCTCTGTACAAGCGAGCTATACTGGCTTCTGAGAGG
Foniv_020         AGTTCCAATGGCGTCTAATCCAGCATTACCTCTACCACTTGAAAGTGACAAAGGGCTAGACCTAGCTCTGTACAAGCGAGCTATACTGGCTTCTGAGAGG
Foniv_021         AGTTCCAATGGCGTCTAATCCAGCATTACCTCTACCACTTGAAAGTGACAAAGGGCTAGACCTAGCTCTGTACAAGCGAGCTATACTGGCTTCTGAGAGG
Foniv_002         AGTTCCAATGGCGTCTAATCCAGCATTACCTCTACCACTTGAAAGTGACAAAGGGCTAGACCTAGCTCTGTACAAGCGAGCTATACTGGCTTCTGAGAGG

                301
Fopis_HDV247      TAAGCAGGAAGACCGATTTGTATATTCCTAGGTGCTAATATAGGGCTCTAACCAGTAGAGATATTACTTCTGGCAGTGTGTTTGAGCCACGTTCTGGCTT
Fomln_010         TAAGCAGGGAGACCGATTTGTATATTTCTAGGCACTAACATGATGCTCTAACCAGCAGAGATACTACTTCTGGCAGTGTGCTTAAGCCGCGTTCCGGATG
Foniv_015         TAAGCAGGGAGACCGATTTGTATATTTCTAGGCACTAACATGATGCTCTAACCAGCAGAGATACTACTTCTGGCAGTGTGCTTAAGCCGCGTTCCGGATG
Foniv_019         TAAGCAGGGAGACCGATTTGTATATTTCTAGGCACTAACATGATGCTCTAACCAGCAGAGATACTACTTCTGGCAGTGTGCTTAAGCCGCGTTCCGGATG
Foniv_037         TAAGCAGGGAGACCGATTTGTATATTTCTAGGCACTAACATGATGCTCTAACCAGCAGAGATACTACTTCTGGCAGTGTGCTTAAGCCGCGTTCCGGATG
Foniv_005         TAAGCAGGGAGACCGATTTGTATATTTCTAGGCACTAACATGATGCTCTAACCAGCAGAGATACTACTTCTGGCAGTGTGCTTAAGCCGCGTTCCGGATG
Foniv_010         TAAGCAGGGAGACCGATTTGTATATTTCTAGGCACTAACATGATGCTCTAACCAGCAGAGATACTACTTCTGGCAGTGTGCTTAAGCCGCGTTCCGGATG
Foniv_013         TAAGCAGGGAGACCGATTTGTATATTTCTAGGCACTAACATGATGCTCTAACCAGCAGAGATACTACTTCTGGCAGTGTGCTTAAGCCGCGTTCCGGATG
Foniv_020         TAAGCAGGGAGACCGATTTGTATATTTCTAGGCACTAACATGATGCTCTAACCAGCAGAGATACTACTTCTGGCAGTGTGCTTAAGCCGCGTTCCGGATG
Foniv_021         TAAGCAGGGAGACCGATTTGTATATTTCTAGGCACTAACATGATGCTCTAACCAGCAGAGATACTACTTCTGGCAGTGTGCTTAAGCCGCGTTCCGGATG
Foniv_002         TAAGCAGGGAGACCGATTTGTATATTTCTAGGCACTAACATGATGCTCTAACCAGCAGAGATACTACTTCTGGCAGTGTGCTTAAGCCGCGTTCCGGATG

                401
Fopis_HDV247      GGTTAGAAGGATGAATGTGCCTAATAGTGTCGGCACTGCAGTTCTAAACATTGGCTCTATTATCGTGAGGGCCATTGTTGATGCTGCTGGCAATGTTATA
Fomln_010         GAATAGAAGGATAAATGTGCCTGATAGTGTCGGCACTGCAGTTATAACCACTGGCCATATTATCGTGAAGGCCATTGTTAATGCTGCTGGCAATGTTATA
Foniv_015         GAATAGAAGGATAAATGTGCCTGATAGTGTCGGCACTGCAGTTATAACCACTGGCCATATTATCGTGAAGGCCATTGTTAATGCTGCTGGCAATGTTATA
Foniv_019         GAATAGAAGGATAAATGTGCCTGATAGTGTCGGCACTGCAGTTATAACCACTGGCCATATTATCGTGAAGGCCATTGTTAATGCTGCTGGCAATGTTATA
Foniv_037         GAATAGAAGGATAAATGTGCCTGATAGTGTCGGCACTGCAGTTATAACCACTGGCCATATTATCGTGAAGGCCATTGTTAATGCTGCTGGCAATGTTATA
Foniv_005         GAATAGAAGGATAAATGTGCCTGATAGTGTCGGCACTGCAGTTATAACCACTGGCCATATTATCGTGAAGGCCATTGTTAATGCTGCTGGCAATGTTATA
Foniv_010         GAATAGAAGGATAAATGTGCCTGATAGTGTCGGCACTGCAGTTATAACCACTGGCCATATTATCGTGAAGGCCATTGTTAATGCTGCTGGCAATGTTATA
Foniv_013         GAATAGAAGGATAAATGTGCCTGATAGTGTCGGCACTGCAGTTATAACCACTGGCCATATTATCGTGAAGGCCATTGTTAATGCTGCTGGCAATGTTATA
Foniv_020         GAATAGAAGGATAAATGTGCCTGATAGTGTCGGCACTGCAGTTATAACCACTGGCCATATTATCGTGAAGGCCATTGTTAATGCTGCTGGCAATGTTATA
Foniv_021         GAATAGAAGGATAAATGTGCCTGATAGTGTCGGCACTGCAGTTATAACCACTGGCCATATTATCGTGAAGGCCATTGTTAATGCTGCTGGCAATGTTATA
Foniv_002         GAATAGAAGGATAAATGTGCCTGATAGTGTCGGCACTGCAGTTATAACCACTGGCCATATTATCGTGAAGGCCATTGTTAATGCTGCTGGCAATGTTATA

                501
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Fomln_010         TTCGAAATCACCAACAACTATGCGGCACCTAAAAGGCTAATATTTCGCAACAGCGATGTAATGATTGACGCAGGTTCTTTCATAGTCGCCGGCCACCACA
Foniv_015         TTCGAAATCACCAACAACTATGCGGCACCTAAAAGGCTAATATTTCGCAACAGCGATGTAATGATTGACGCAGGTTCTTTCATAGTCGCCGGCCACCACA
Foniv_019         TTCGAAATCACCAACAACTATGCGGCACCTAAAAGGCTAATATTTCGCAACAGCGATGTAATGATTGACGCAGGTTCTTTCATAGTCGCCGGCCACCACA
Foniv_037         TTCGAAATCACCAACAACTATGCGGCACCTAAAAGGCTAATATTTCGCAACAGCGATGTAATGATTGACGCAGGTTCTTTCATAGTCGCCGGCCACCACA
Foniv_005         TTCGAAATCACCAACAACTATGCGGCACCTAAAAGGCTAATATTTCGCAACAGCGATGTAATGATTGACGCAGGTTCTTTCATAGTCGCCGGCCACCACA
Foniv_010         TTCGAAATCACCAACAACTATGCGGCACCTAAAAGGCTAATATTTCGCAACAGCGATGTAATGATTGACGCAGGTTCTTTCATAGTCGCCGGCCACCACA
Foniv_013         TTCGAAATCACCAACAACTATGCGGCACCTAAAAGGCTAATATTTCGCAACAGCGATGTAATGATTGACGCAGGTTCTTTCATAGTCGCCGGCCACCACA
Foniv_020         TTCGAAATCACCAACAACTATGCGGCACCTAAAAGGCTAATATTTCGCAACAGCGATGTAATGATTGACGCAGGTTCTTTCATAGTCGCCGGCCACCACA
Foniv_021         TTCGAAATCACCAACAACTATGCGGCACCTAAAAGGCTAATATTTCGCAACAGCGATGTAATGATTGACGCAGGTTCTTTCATAGTCGCCGGCCACCACA
Foniv_002         TTCGAAATCACCAACAACTATGCGGCACCTAAAAGGCTAATATTTCGCAACAGCGATGTAATGATTGACGCAGGTTCTTTCATAGTCGCCGGCCACCACA

                601
Fopis_HDV247      TTGCTAGCTATAACACTCACGGGGGAATTGAAGCTGGGGCAGTTGTTTCAATCGCCGTTCAGATGGGTGGCTAAGAGTTTAGAGGTTTCGCAGGATGTAG
Fomln_010         TTGATACCTATGACACTCACGGGGGAATTGCAGCTGGGTCAATTGGTCTAGTCACCGTTCAGGATAGTGGCTAAGAGTTTAGAGGTTTAGCAGGAGGTAG
Foniv_015         TTGATACCTATGACACTCACGGGGGAATTGCAGCTGGGTCAATTGGTCTAGTCACCGTTCAGGATAGTGGCTAAGAGTTTAGAGGTTTAGCAGGAGGTAG
Foniv_019         TTGATACCTATGACACTCACGGGGGAATTGCAGCTGGGTCAATTGGTCTAGTCACCGTTCAGGATAGTGGCTAAGAGTTTAGAGGTTTAGCAGGAGGTAG
Foniv_037         TTGATACCTATGACACTCACGGGGGAATTGCAGCTGGGTCAATTGGTCTAGTCACCGTTCAGGATAGTGGCTAAGAGTTTAGAGGTTTAGCAGGAGGTAG
Foniv_005         TTGATACCTATGACACTCACGGGGGAATTGCAGCTGGGTCAATTGGTCTAGTCACCGTTCAGGATAGTGGCTAAGAGTTTAGAGGTTTAGCAGGAGGTAG
Foniv_010         TTGATACCTATGACACTCACGGGGGAATTGCAGCTGGGTCAATTGGTCTAGTCACCGTTCAGGATAGTGGCTAAGAGTTTAGAGGTTTAGCAGGAGGTAG
Foniv_013         TTGATACCTATGACACTCACGGGGGAATTGCAGCTGGGTCAATTGGTCTAGTCACCGTTCAGGATAGTGGCTAAGAGTTTAGAGGTTTAGCAGGAGGTAG
Foniv_020         TTGATACCTATGACACTCACGGGGGAATTGCAGCTGGGTCAATTGGTCTAGTCACCGTTCAGGATAGTGGCTAAGAGTTTAGAGGTTTAGCAGGAGGTAG
Foniv_021         TTGATACCTATGACACTCACGGGGGAATTGCAGCTGGGTCAATTGGTCTAGTCACCGTTCAGGATAGTGGCTAAGAGTTTAGAGGTTTAGCAGGAGGTAG
Foniv_002         TTGATACCTATGACACTCACGGGGGAATTGCAGCTGGGTCAATTGGTCTAGTCACCGTTCAGGATAGTGGCTAAGAGTTTAGAGGTTTAGCAGGAGGTAG

                701
Fopis_HDV247      CGAAGTGGG--------TTTTTTTTGCCGCGTTGTGGCTTTCCCACACTTACACATTTCTGCTTCTATAAAAGCATACTCTACAAACAAGTTAGATAGAA
Fomln_010         CGAAGTGGGTTTTTTTTTTTTTTTT-----------------------------------------------------------------------
Foniv_015         CGAAGTGGGTTTTTTTTTTTTTTTTTGACGCCTTGTGGTTTTCCCACACTTGCACATTTCTGCTGCTATAGAGACGTGCTAT----ACAAGTTAGATCAGT
Foniv_019         CGAAGTGGGTTTTTTTTTTTTTTTTTGACGCCTTGTGGTTTTCCCACACTTGCACATTTCTGCTGCTATAGAGACGTGCTAT----ACAAGTTAGATCAGT
Foniv_037         CGAAGTGGGTTTTTTTTTTTTTTTTTGACGCCTTGTGGTTTTCCCACACTTGCACATTTCTGCTGCTATAGAGACGTGCTAT----ACAAGTTAGATCAGT
Foniv_005         CGAAGTGGG-TTTTTTTTTTTTTTTTGACGCCTTGTGGTTTTCCCACACTTGCACATTTCTGCTGCTATAGAGACGTGCTAT----ACAAGTTAGATCAGT
Foniv_010         CGAAGTGGG-TTTTTTTTTTTTTTTTGACGCCTTGTGGTTTTCCCACACTTGCACATTTCTGCTGCTATAGAGACGTGCTAT----ACAAGTTAGATCAGT
Foniv_013         CGAAGTGGG-TTTTTTTTTTTTTTTTGACGCCTTGTGGTTTTCCCACACTTGCACATTTCTGCTGCTATAGAGACGTGCTAT----ACAAGTTAGATCAGT
Foniv_020         CGAAGTGGG-TTTTTTTTTTTTTTTTGACGCCTTGTGGTTTTCCCACACTTGCACATTTCTGCTGCTATAGAGACGTGCTAT----ACAAGTTAGATCAGT
Foniv_021         CGAAGTGGG-TTTTTTTTTTTTTTTTGACGCCTTGTGGTTTTCCCACACTTGCACATTTCTGCTGCTATAGAGACGTGCTAT----ACAAGTTAGATCAGT
Foniv_002         CGAAGTGGGTTTTTTTTTTTTTTTTTGACGCCTTGTGGTTTTCCCACACTTGCACATTTCTGCTGCTATAGAGACGTGCTAT----ACAAGTTAGATCAGT
```

fp7331 fwd> Foniv

probe_4 Foniv Taqman

fp7591 fwd> Foniv Taqman

fp7592 rev< Foniv Taqman

fp7331 rev< Foniv

Marker #100

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             801
Fopis_HDV247  ATAGTAAGTCGCCCACCCTAGTTATGGCCCAC
Fomln_010     -------------------------------
Foniv_015     GATGTTATTGGATTGGATTGGAGCTGG-----
Foniv_019     GATGTTATTGGATTGGATTGGAGCTGG-----
Foniv_037     GATGTTATTGGATTGGATTGGAGCTGG-----
Foniv_005     GATGTTATTGGATTGGATTGGAGCTGGAT---
Foniv_010     GATGTTATTGGATTGGATTGGAGCTGGAT---
Foniv_013     GATGTTATTGGATTGGATTGGAGCTGGAT---
Foniv_020     GATGTTATTGGATTGGATTGGAGCTGGAT---
Foniv_021     GATGTTATTGGATTGGATTGGAGCTGGAT---
Foniv_002     GATGTTATTGGATTGGATTGGAGCTGGA----
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Marker #100

Alignment: /Users/Peter/Dropbox/_UvA/Shared_Martijn_Peter/04.f.sp.markers/Supplementary_data/markers_aligned_150bp/02.alignments_renamed
Seaview [blocks=100 fontsize=7 A4] on Fri Aug 25 09:44:57 2017

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                  1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
Foniv_002_1       -------GTCTAAACCGGTTGAAATTCGAGTTTCCTATTTAAGCACAAGGCACAGCATAAATACCGTAGTCCAGTCTGCCTCTAGATGTAGCAAAATCAA
Fopis_HDV247      -------GTCTAAACCGGTTGAAATTCGAGTTTCCTATTTAAGCACAAGGCACAGCATAAATACCGTAGTCCAGTCTGCCTCTAGATGTAGCAAAATCAA
Forcu_031         ---------------------------------------------CCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Focuc_015         ------------------------------------------------------------------------AGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Focuc_035         ------------------------------------------------------------------ATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Forcu_024         ---------------------------------------------CCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Fomom_004_1       --------------------------GGATTCTCGGATTT-----------------------------TTCCAA----------------------------
Folag_001         -ATCATTGTCTAAACTGGTTGAAATACGAGTTTCTTATTTAAGCCCAAGACACAGCATAAATACCCTAGTCCAATCTGCCTC-------AGCAAAATCAA
Folag_004         -ATCATTGTCTAAACTGGTTGAAATACGAGTTTCTTATTTAAGCCCAAGACACAGCATAAATACCCTAGTCCAATCTGCCTC-------AGCAAAATCAA
Folag_005         -ATCATTGTCTAAACTGGTTGAAATACGAGTTTCTTATTTAAGCCCAAGACACAGCATAAATACCCTAGTCCAATCTGCCTC-------AGCAAAATCAA
Folag_002         TATCATTGTCTAAACTGGTTGAAATACGAGTTTCTTATTTAAGCCCAAGACACAGCATAAATACCCTAGTCCAATCTGCCTC-------AGCAAAATCAA
Foniv_020_0       -------GTCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGTCTCTAGATGTAGCAAAATCAA
Foniv_005         ----------------------------------------------------------------------------------------------------
Foniv_013_0       --------TCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGTCTCTAGATGTAGCAAAATCAA
Fovas_NRRL25433   -------GTCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGTCTCTAGATGTAGCAAAATCAA
Focuc_030_1       -------GTCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Foniv_010_1       --------TCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Focuc_021         --------TCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Fomln_005_0       --------TCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Fomln_011_1       -------GTCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
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Fomln_011_0       -------GTCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
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Foniv_013_1       -------GTCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Foniv_019         -------GTCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Focuc_018_0       --------TCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Foluf_001_0       ----------------------------------------------------------------------------------------------------
Foluf_002_0       --------TCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Fomln_001         --------TCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Fomln_004         --------TCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Fomln_005_1       --------TCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Fomln_006         --------TCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Fomln_009         --------TCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Fomln_013         --------TCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Fomln_016         --------TCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Foniv_002_0       --------TCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Foniv_015         --------TCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Foniv_037         --------TCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Focuc_013         -------GTCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Focuc_037         -------GTCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Forcu_016         ----------------------------------------------------------------------------------------------------
Focuc_011         --------TCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Foniv_010_0       --------TCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Foniv_020_1       ----------------------------------------------------------------------------------------------------
Fomom_004_0       --------TCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Foluf_002_1       --------TCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Focuc_018_1       -------GTCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Focuc_030_0       -------GTCTAAACTGGTTGAAGTACGAGTTTCTTATTTAAGTCCAAGGCACAGCATAAATACCGTAGTCCAATCTGCCTCTAGATGTAGCAAAATCAA
Foluf_001_1       ----------------------------------------------------------------------------------------------------

                  101
Foniv_002_1       ACTTCCCTATTATCCTACTCAGTAACAAAATCCCTAATATCGCCAATCAGTATCAAAATGCGCCCAACCAACTTTATTCCAATTCTTGCGGTCTTTCTAC
Fopis_HDV247      ACTTCCCTATTATCCTACTCAGTAACAAAATCCCTAATATCGCCAATCAGTATCAAAATGCGCCCAACCAACTTTATTCCAATTCTTGCGGTCTTTCTAC
Forcu_031         ACTTCTATATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCT-----------NNNNNNNNNNNNNNNNNNNNNNNN
Focuc_015         ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Focuc_035         ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Forcu_024         ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCT---NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Fomom_004_1       -------CATTTTCCTTCTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAACCAACTTTATTCCAATTATAGCAGTCTTTCTAC
Folag_001         ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAGCCAACTTTATTCCAATTATAGCAGTCTTTCTAC
Folag_004         ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAGCCAACTTTATTCCAATTATAGCAGTCTTTCTAC
Folag_005         ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAGCCAACTTTATTCCAATTATAGCAGTCTTTCTAC
Folag_002         ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAGCCAACTTTATTCCAATTATAGCAGTCTTTCTAC
Foniv_020_0       CCTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAACCAACTTTATTCCAATCATAGCAGTCTTTTTAC
Foniv_005         ----------------------------------------------------------------------------------------------------
Foniv_013_0       CCTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAACCAACTTTATTCCAATCATAGCAGTCTTTTTAC
Fovas_NRRL25433   CCTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAACCAACTTTATTCCAATCATAGCAGTCTTTTTAC
Focuc_030_1       ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAACCAACTTTATTCCAATTATAGCAGTCTTTCTAC
Foniv_010_1       ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAACCAACTTTATTCCAATTATAGCAGTCTTTCTAC
Focuc_021         ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAACCAACTTTATTCCAATTATAGCAGTCTTTCTAC
Fomln_005_0       ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAACCAACTTTATTCCAATTATAGCAGTCTTTCTAC
Fomln_011_1       ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAACCAACTTTATTCCAATTATAGCAGTCTTTCTAC
Fomln_010         ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAACCAACTTTATTCCAATTATAGCAGTCTTTCTAC
Fomln_011_0       ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAACCAACTTTATTCCAATTATAGCAGTCTTTCTAC
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Foniv_013_1       ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAACCAACTTTATTCCAATTATAGCAGTCTTTCTAC
Foniv_019         ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAACCAACTTTATTCCAATTATAGCAGTCTTTCTAC
Focuc_018_0       ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAACCAACTTTATTCCAATTATAGCAGTCTTTCTAC
Foluf_001_0       ----------------------------------------CCAATCGGTCTCAAAATGCGCCTAACCAACTTTATTCCAATTATAGCAGTCTTTCTAC
Foluf_002_0       ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAACCAACTTTATTCCAATTATAGCAGTCTTTCTAC
Fomln_001         ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAACCAACTTTATTCCAATTATAGCAGTCTTTCTAC
Fomln_004         ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAACCAACTTTATTCCAATTATAGCAGTCTTTCTAC
Fomln_005_1       ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAACCAACTTTATTCCAATTATAGCAGTCTTTCTAC
Fomln_006         ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAACCAACTTTATTCCAATTATAGCAGTCTTTCTAC
Fomln_009         ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAACCAACTTTATTCCAATTATAGCAGTCTTTCTAC
Fomln_013         ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAACCAACTTTATTCCAATTATAGCAGTCTTTCTAC
Fomln_016         ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAACCAACTTTATTCCAATTATAGCAGTCTTTCTAC
Foniv_002_0       ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAACCAACTTTATTCCAATTATAGCAGTCTTTCTAC
Foniv_015         ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAACCAACTTTATTCCAATTATAGCAGTCTTTCTAC
Foniv_037         ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAACCAACTTTATTCCAATTATAGCAGTCTTTCTAC
Focuc_013         ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAACCAACTTTATTCCAATTATAGCAGTCTTTCTAC
Focuc_037         ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTAACCAACTTTATTCCAATTATAGCAGTCTTTCTAC
Forcu_016         ----------------------------------------------------------------------------------------------------
Focuc_011         ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTGACCAACTTTATTCCAATTATAGCTGTCTTTCCAC
Foniv_010_0       ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTGACCAACTTTATTCCAATTATAGCTGTCTTTCCAC
Foniv_020_1       ----------------------------------------CCAATCGGTCTCAAAATGCGCCTGACCAACTTTATTCCAATTATAGCTGTCTTTCCAC
Fomom_004_0       ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTGACCAACTTTATTCCAATTATAGCTGTCTTTCCAC
Foluf_002_1       ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTGACCAACTTTATTCCAATTATAGCTGTCTTTCCAC
Focuc_018_1       ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTGACCAACTTTATTCCAATTATAGCTGTCTTTCCAC
Focuc_030_0       ACTTCTCTATTTTCCTACTCAGCAACAAAGCCCCTAATATTGCCAATCGGTCTCAAAATGCGCCTGACCAACTTTATTCCAATTATAGCTGTCTTTCCAC
Foluf_001_1       ----------------------------------------CCAATCGGTCTCAAAATGCGCCTGACCAACTTTATTCCAATTATAGCTGTCTTTCCAC
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Foniv_002_1    CCTTTGCTATAGCAGACTGCATACAGCGGACTGTACGATGCGTAAGTAAAAGTGACCTCTCAAGCAATATTTACTTACATAAACTTGCAGTCACCTGAGG
Fopis_HDV247   CCTTTGCTATAGCAGACTGCATACAGCGGACTGTACGATGCGTAAGTAAAAGTGACCTCTCAAGCAATATTTACTTACATAAACTTGCAGTCACCTGAGG
Forcu_031      NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNAAGCAATATTTGCTTACATAAACTTGCAGGGACCTGAGG
Focuc_015      NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNAAGCAATATTTGCTTACATAAACTTGCAGGGACCTGAGG
Focuc_035      NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNAAGCAATATTTGCTTACATAAACTTGCAGGGACCTGAGG
Forcu_024      NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNAAGCAATATTTGCTTACATAAACTTGCAGGGACCTGAGG
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Folag_001      CCTTTGCTATAGCAAACTGCATACAGCGGACTGCACGATGCGTAAGTAAAAGTGTCATCTCAAGCAATATTTGCTTACATAAACTTGCAGGGACCTGAGG
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Foniv_013_0    CCTTTGCTATAGCAAACTGCATACAGCGGACTGCACGATGCGTAAGTAAAAGTGACATCTCAAGCAATATTTGCTTACATAAACTTGCAGGGACCTGAGG
Fovas_NRRL25433 CCTTTGCTATAGCAAACTGCATACAGCGGACTGCACGATGCGTAAGTAAAAGTGACATCTCAAGCAATATTTGCTTACATAAACTTGCAGGGACCTGAGG
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Foniv_010_1    CCTTTGCTATAGCAAACTGAATACAGCGGACTGCACGATGCGTAAGTAAAAGTGACATCTCAAGCAATATTTGCTTACATAAACTTGCAGGGACCTGAGG
Focuc_021      CCTTTGCTATAGCAAACTGAATACAGCGGACTGCACGATGCGTAAGTAAAAGTGACATCTCAAGCAATATTTGCTTACATAAACTTGCAGGGACCTGAGG
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Focuc_018_0    CCTTTGCTATAGCAAACTGAATACAGCGGACTGCACGATGCGTAAGTAAAAGTGACATCTCAAGCAATATTTGCTTACATAAACTTGCAGGGACCTGAGG
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Fomln_004      CCTTTGCTATAGCAAACTGAATACAGCGGACTGCACGATGCGTAAGTAAAAGTGACATCTCAAGCAATATTTGCTTACATAAACTTGCAGGGACCTGAGG
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Foniv_002_0    CCTTTGCTATAGCAAACTGAATACAGCGGACTGCACGATGCGTAAGTAAAAGTGACATCTCAAGCAATATTTGCTTACATAAACTTGCAGGGACCTGAGG
Foniv_015      CCTTTGCTATAGCAAACTGAATACAGCGGACTGCACGATGCGTAAGTAAAAGTGACATCTCAAGCAATATTTGCTTACATAAACTTGCAGGGACCTGAGG
Foniv_037      CCTTTGCTATAGCAAACTGAATACAGCGGACTGCACGATGCGTAAGTAAAAGTGACATCTCAAGCAATATTTGCTTACATAAACTTGCAGGGACCTGAGG
Focuc_013      CCTTTGCTATAGCAAACTGCATACAGCGGACTGCACGATGCGTAAGTAAAAGTGACATCTCAAGCAATATTTGCTTACATAAACTTGCAGGGACCTGAGG
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Foniv_020_1    CCTTTGCTATAGCAAACTGCATACAGCGGACTGCACGATGCGTAAGTAAAAGTGACATCCAAAGCAATATTTGCTTACATAAACTTGCAGGGACCTGAGG
Fomom_004_0    CCTTTGCTATAGCAAACTGCATACAGCGGACTGCACGATGCGTAAGTAAAAGTGACATCCAAAGCAATATTTGCTTACATAAACTTGCAGGGACCTGAGG
Foluf_002_1    CCTTTGCTATAGCAAACTGCATACAGCGGACTGCACGATGCGTAAGTAAAAGTGACATCCAAAGCAATATTTGCTTACATAAACTTGCAGGGACCTGAGG
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Focuc_030_0    CCTTTGCTATAGCAAACTGCATACAGCGGACTGCACGATGCGTAAGTAAAAGTGACATCCAAAGCAATATTTGCTTACATAAACTTGCAGGGACCTGAGG
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Foniv_002_1    ATGTCTGCCTTCGTGTAGACGGTGCTCAAGTTTGTGGCACAACTGAGGTACCTCAAGGATGTGACCGCACGCTTCGCCGTGATGGTTCTGGCGGCGGAGT
Fopis_HDV247   ATGTCTGCCTTCGTGTAGACGGTGCTCAAGTTTGTGGCACAACTGAGGTACCTCAAGGATGTGACCGCACGCTTCGCCGTGATGGTTCTGGCGGCGGAGT
Forcu_031      ATGTCTGCCTTCGTGTAAGCGGTACTCAAGTCTGTGGCACAACTGAAGTATCTCAAGGATGTGACCTCACGCTTCGCCGTGATGGTACTGGCGGCGCAGT
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Fomom_004_1    ATGTCTGCCTTCGTGTAAGCGGTACTCAAGTCTGTGGCACAACTGAAGTATCTCAAGGATGCGACCTCACGCTTCGCCGTGACGGTACTGGCGGCGCAGT
Folag_001      ATGTCTGCCTTCGTGTAAGCGGTACTCAAGCCTGTGGCACAACTGAAGTATCTCAAGGATGTGACCTCACGCTTCGCCGTGATGGTACTGGCGGCGCAGT
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Folag_002      ATGTCTGCCTTCGTGTAAGCGGTACTCAAGCCTGTGGCACAACTGAAGTATCTCAAGGATGTGACCTCACGCTTCGCCGTGATGGTACTGGCGGCGCAGT
Foniv_020_0    ATGTCTGCCTTCGTGTAAGCGGTACTCAAGTCTGTGGCACAACTGAAGTATCTCAAGGATGTGACCTCACGCTTCGCCGTGATGGTACTGGCGGCGCAGT
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Foniv_013_0    ATGTCTGCCTTCGTGTAAGCGGTACTCAAGTCTGTGGCACAACTGAAGTATCTCAAGGATGTGACCTCACGCTTCGCCGTGACGGTACTGGCGGCGCAGT
Fovas_NRRL25433 ATGTCTGCCTTCGTGTAAGCGGTACTCAAGTCTGTGGCACAACTGAAGTATCTCAAGGATGTGACCTCACGCTTCGCCGTGACGGTACTGGCGGCGCAGT
Focuc_030_1    ATGTCTGCCTTCGTGTAAGCGGTACTCGAGTCTGTGGCACAACTGAAGTATCTCAAGGATGTGACCTCACGCTTCGCCGTGATGGTACTGGCGGCGCAGT
Foniv_010_1    ATGTCTGCCTTCGTGTAAGCGGTACTCGAGTCTGTGGCACAACTGAAGTATCTCAAGGATGTGACCTCACGCTTCGCCGTGATGGTACTGGCGGCGCAGT
Focuc_021      ATGTCTGCCTTCGTGTAAGCGGTACTCGAGTCTGTGGCACAACTGAAGTATCTCAAGGATGTGACCTCACGCTTCGCCGTGATGGTACTGGCGGCGCAGT
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Foniv_019      ATGTCTGCCTTCGTGTAAGCGGTACTCGAGTCTGTGGCACAACTGAAGTATCTCAAGGATGTGACCTCACGCTTCGCCGTGATGGTACTGGCGGCGCAGT
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Foniv_002_0    ATGTCTGCCTTCGTGTAAGCGGTACTCGAGTCTGTGGCACAACTGAAGTATCTCAAGGATGTGACCTCACGCTTCGCCGTGATGGTACTGGCGGCGCAGT
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Focuc_030_0    ATGTCTGCCTTCGTGTAAGCGGTACTCAAGTCTGTGGCACAACTGAAGTATCTCAAGGATGTGACCTCACGCTTCGCCGTGATGGTACTGGCGGCGCAGT
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Forcu_031         AACTGTATGTTATCTAACT--CACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Focuc_015         AACTGTATGTTATCTAACTCACACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
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Foniv_013_0       AACTGTATGTTATCTAACT--CACAAAACTCTTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGGCCAGAGCG
Fovas_NRRL25433   AACTGTATGTTATCTAACT--CACAAAACTCTTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGGCCAGAGCG
Focuc_030_1       AACTGTATGTTATCTAACT--CACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Foniv_010_1       AACTGTATGTTATCTAACT--CACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Focuc_021         AACTGTATGTTATCTAACT--CACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Fomln_005_0       AACTGTATGTTATCTAACT--CACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
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Foniv_013_1       AACTGTATGTTATCTAACT--CACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Foniv_019         AACTGTATGTTATCTAACT--CACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Focuc_018_0       AACTGTATGTTATCTAACT--CACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Foluf_001_0       AACTGTATGTTATCTAACT--CACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Foluf_002_0       AACTGTATGTTATCTAACT--CACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Fomln_001         AACTGTATGTTATCTAACT--CACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Fomln_004         AACTGTATGTTATCTAACT--CACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Fomln_005_1       AACTGTATGTTATCTAACT--CACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Fomln_006         AACTGTATGTTATCTAACT--CACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Fomln_009         AACTGTATGTTATCTAACT--CACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Fomln_013         AACTGTATGTTATCTAACT--CACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Fomln_016         AACTGTATGTTATCTAACT--CACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Foniv_002_0       AACTGTATGTTATCTAACT--CACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Foniv_015         AACTGTATGTTATCTAACT--CACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Foniv_037         AACTGTATGTTATCTAACT--CACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Focuc_013         AACTGTATGTTATCTAACT--CACAAAACTCCAAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Focuc_037         AACTGTATGTTATCTAACTCACACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Forcu_016         AACTGTATGTTATCTAACT--CACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Focuc_011         AACTGTATGTTATCTAACT--CACAAAACTCCAAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Foniv_010_0       AACTGTATGTTATCTAACTCACACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Foniv_020_1       AACTGTATGTTATCTAACTCACACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Fomom_004_0       AACTGTATGTTATCTAACTCACACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Foluf_002_1       AACTGTATGTTATCTAACTCACACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Focuc_018_1       AACTGTATGTTATCTAACTCACACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Focuc_030_0       AACTGTATGTTATCTAACTCACACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG
Foluf_001_1       AACTGTATGTTATCTAACTCACACAAAACTCCTAGGTTAACTGATACTAACTTTGCAGTGTACTTGTTGCCCAACATAGTATTATGATACGACCAGAGCG

                501                fp7410 rev< Folag
Foniv_002_1       TCAGCGTCACGTGTACGGAAGGTTGCTCACTTTCCTCCC-TAATTATGCAAGTGTCACTCAGGATGGATCACTACGCTCCAGGAATAACCGTAATCCAGG
Fopis_HDV247      TCAGCGTCACGTGTACGGAAGGTTGCTCACTTTCCTCCC-TAATTATGCAAGTGTCACTCAGGATGGATCACTACGCTCCAGGAATAACCGTAATCCAGG
Forcu_031         TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Focuc_015         TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Focuc_035         TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Forcu_024         TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Fomom_004_1       TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Folag_001         TCAGCGTTGCATGTACGGAAGAATGCTCACTTCC------TAATTATGCAAGGGCCACCCAGGATGGATCACTACAC-----------------TCCAGG
Folag_004         TCAGCGTTGCATGTACGGAAGAATGCTCACTTCC------TAATTATGCAAGGGCCACCCAGGATGGATCACTACAC-----------------TCCAGG
Folag_005         TCAGCGTTGCATGTACGGAAGAATGCTCACTTCC------TAATTATGCAAGGGCCACCCAGGATGGATCACTACAC-----------------TCCAGG
Folag_002         TCAGCGTTGCATGTACGGAAGAATGCTCACTTCC------TAATTATGCAAGGGCCACCCAGGATGGATCACTACAC-----------------TCCAGG
Foniv_020_0       TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAA--------------------CTACGC-----------------TCCAGG
Foniv_005         TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAA--------------------CTACGC-----------------TCCAGG
Foniv_013_0       TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAA--------------------CTACGC-----------------TCCAGG
Fovas_NRRL25433   TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAA--------------------CTACGC-----------------TCCAGG
Focuc_030_1       TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC-ATATCTCTTTAAGTGCT-----------ATAGCTCTCC-----------------AGCGGG
Foniv_010_1       TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--T-------------------------------------------------------
Focuc_021         TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Fomln_005_0       TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Fomln_011_1       TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Fomln_010         TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Fomln_011_0       TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Fomln_012         TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Foniv_013_1       TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Foniv_019         TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Focuc_018_0       TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Foluf_001_0       TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Foluf_002_0       TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Fomln_001         TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Fomln_004         TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Fomln_005_1       TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Fomln_006         TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Fomln_009         TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Fomln_013         TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Fomln_016         TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Foniv_002_0       TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Foniv_015         TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Foniv_037         TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Focuc_013         TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Focuc_037         TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Forcu_016         TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Focuc_011         TCAGCGTTGCATGTGCGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Foniv_010_0       TCAGCGTTGCATGTATGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Foniv_020_1       TCAGCGTTGCATGTATGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Fomom_004_0       TCAGCGTTGCATGTATGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Foluf_002_1       TCAGCGTTGCATGTATGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Focuc_018_1       TCAGCGTTGCATGTATGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Focuc_030_0       TCAGCGTTGCATGTATGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
Foluf_001_1       TCAGCGTTGCATGTATGGAAGAATGCTCACTTTCTTCC--TAATTATGCAAGGGCCACCCAGGATGGATCACTACGC-----------------TCCAGG
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Marker #71

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                601
Foniv_002_1       ATCACCGTGATCCCTTCAAACCAGCAATCCCTTCAGAATGGCCTCTAGTATATAGATCACAATCCCTTGGCATTTCATAGA--------------TCTTA
Fopis_HDV247      ATCACCGTGATCCCTTCAAACCAGCAATCCCTTCAGAATGGCCTCTAGTATATAGATCACAATCCCTTGGCATTTCATAGA--------------TCTTA
Forcu_031         ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Focuc_015         ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCT--------------------------------
Focuc_035         ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTA-----------------------------------------------------
Forcu_024         ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Fomom_004_1       ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAACGTCGGATACAGGGAAACCGGCCACCCCCAGAAACCGGCCACCCTTTTCAAA
Folag_001         ATCACCGTGATCCCTTCAAATCTGCAATGCCTTCAGGATGGCCTCTAGTACATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Folag_004         ATCACCGTGATCCCTTCAAATCTGCAATGCCTTCAGGATGGCCTCTAGTACATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Folag_005         ATCACCGTGATCCCTTCAAATCTGCAATGCCTTCAGGATGGCCTCTAGTACATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Folag_002         ATCACCGTGATCCCTTCAAATCTGCAATGCCTTCAGGATGGCCTCTAGTACATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Foniv_020_0       ACCACCGTGATCCCTTCAAATCAGC---------------------------------------------------------------------------
Foniv_005         ACCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Foniv_013_0       ACCACCGTGATCCCTTCAAATCAG----------------------------------------------------------------------------
Fovas_NRRL25433   ACCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Focuc_030_1       GTCA-----------------CGACAAGGCCGTCTGG-------TTAGCACATAAATCGTG-----------------------------------CGTG
Foniv_010_1       ----------------------------------------------------------------------------------------------------
Focuc_021         ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Fomln_005_0       ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Fomln_011_1       ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Fomln_010         ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Fomln_011_0       ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Fomln_012         ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Foniv_013_1       ATCACCGTGATCCCTTCAAATCAG----------------------------------------------------------------------------
Foniv_019         ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Focuc_018_0       ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Foluf_001_0       ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Foluf_002_0       ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Fomln_001         ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Fomln_004         ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Fomln_005_1       ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Fomln_006         ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Fomln_009         ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Fomln_013         ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Fomln_016         ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Foniv_002_0       ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Foniv_015         ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Foniv_037         ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Focuc_013         ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTA-----------------------------------------------------
Focuc_037         ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTA-----------------------------------------------------
Forcu_016         ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Focuc_011         ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Foniv_010_0       ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Foniv_020_1       ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Fomom_004_0       ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Foluf_002_1       ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Focuc_018_1       ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Focuc_030_0       ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA
Foluf_001_1       ATCACCGTGATCCCTTCAAATCAGCAATGCCTTCAGGATGGCCTCTAGTATATAAATCACAATCCCTGGGCATTTCATAGA--------------TCTTA

                701
Foniv_002_1       GCCCACTAGGTATTATCACAATTTCTTTACGATAATAAGCCATATC------------------CGCATTACTTATCTATTAGGTGACGTAGCA-CTTTA
Fopis_HDV247      GCCCACTAGGTATTATCACAATTTCTTTACGATAATAAGCCATATC------------------CGCATTACTTATCTATTAGGTGACGTAGCA-CTTTA
Forcu_031         GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
Focuc_015         ----------------------------------------------------------------------------------------------------
Focuc_035         ----------------------------------------------------------------------------------------------------
Forcu_024         GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
Fomom_004_1       ACACCAAAAATAAGATCACGA---TTGTAACTCAATTAAAAACACA------------------CCACCACATTTTTTATATTAAATAAAATTTCTGTC
Folag_001         GCCCACGAGATATCAACACAA---CTTTACCATAATAAACCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACA-CTTTA
Folag_004         GCCCACGAGATATCAACACAA---CTTTACCATAATAAACCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACA-CTTTA
Folag_005         GCCCACGAGATATCAACACAA---CTTTACCATAATAAACCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACA-CTTTA
Folag_002         GCCCACGAGATATCAACACAA---CTTTACCATAATAAACCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACA-CTTTA
Foniv_020_0       ----------------------------------------------------------------------------------------------------
Foniv_005         GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC----------------------CACAGGGCTCCTAATAGTCCGGACCGTTTGG
Foniv_013_0       ----------------------------------------------------------------------------------------------------
Fovas_NRRL25433   GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC----------------------CACAGGGCTCCTAATAGTCCGGACCGTTTGG
Focuc_030_1       CCTAAAGAGCGAGAGACAGAA---A---------------------------------------------------------GGTCGACGAGGGT------
Foniv_010_1       ----------------------------------------------------------------------------------------------------
Focuc_021         GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
Fomln_005_0       GCCCACGAGATATCAACACAN---NNNNNNNNNTAT-GGCCCGATCTTTTGCCCTGTGGTTTAACGGCTTGTGCAACCGTTACAAAGTAGAACTGATCCA
Fomln_011_1       GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGNNN------------------NNNNNNNATAAGCTTGTGGATCAAACAA-----GCA
Fomln_010         GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
Fomln_011_0       GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
Fomln_012         GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
Foniv_013_1       ----------------------------------------------------------------------------------------------------
Foniv_019         GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
Focuc_018_0       GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
Foluf_001_0       GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
Foluf_002_0       GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
Fomln_001         GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
Fomln_004         GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
Fomln_005_1       GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
Fomln_006         GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
Fomln_009         GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
Fomln_013         GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
Fomln_016         GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
Foniv_002_0       GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
Foniv_015         GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
Foniv_037         GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
Focuc_013         ----------------------------------------------------------------------------------------------------
Focuc_037         ----------------------------------------------------------------------------------------------------
Forcu_016         GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
Focuc_011         GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
Foniv_010_0       GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
Foniv_020_1       GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
Fomom_004_0       GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
Foluf_002_1       GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
Focuc_018_1       GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
Focuc_030_0       GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
Foluf_001_1       GCCCACGAGATATCAACACAA---CTTTACCATAATAAGCCTGACC------------------CGCATTGCTTATCTTTTGGGTGACGGAACT-CTTTA
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Marker #71

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                801
Foniv_002_1       TATC---GCTTAGTATGACACCTTAAGACTCTTCTAATATACCATGCAGTACC--CACCCACCTACC----------------
Fopis_HDV247      TATC---GCTTAGTATGACACCTTAAGACTCTTCTAATATACCATGCAGTACC--CACCCACCTACC----------------
Forcu_031         TATG---GCCTAGTATAACGCCTTACGATGCTGCTAATATCTCTTTAAGTGCT-ATAGC------------------------
Focuc_015         ------------------------------------------------------------------------------------
Focuc_035         ------------------------------------------------------------------------------------
Forcu_024         TATG---GCCTAGTATAACGCCTTACGATGCTGCTAATATCTCTTTAAGTGCT-ATAGCTCTCCAGCGG--------------
Fomom_004_1       AGTGAATATTCAGA---------TGGAACTGAGTGCAAAGATCTTTAAGTTTT-AACTTTT----------------------
Folag_001         TATG---GCCTAGTATAACGCCTTACGATGCTGCTAATATCTCTTTAAGTGCT-ATAGCTCTCCAGCGGG-------------
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Folag_005         TATG---GCCTAGTATAACGCCTTACGATGCTGCTAATATCTCTTTAAGTGCT-ATAGCTCTCCAGCGGG-------------
Folag_002         TATG---GCCTAGTATAACGCCTTACGATGCTGCTAATATCTCTTTAAGTGCT-ATAGCTCTCCAGCGG--------------
Foniv_020_0       ------------------------------------------------------------------------------------
Foniv_005         ACTATTAGTCCAGACTACAATCCAAGATCAATAATCAATCCACGACTGGCGTTCATGGATTGATGACTAG-------------
Foniv_013_0       ------------------------------------------------------------------------------------
Fovas_NRRL25433   ACTATTAGTCCAGACTACAATCCAAGATCAATAATCAATCCACGACTGGCGTTCATGGATTGATGACTA--------------
Focuc_030_1       ------------------------TTTGATGCTG-------------------------------------------------
Foniv_010_1       ------------------------------------------------------------------------------------
Focuc_021         TATG---GCCTAGTATAACGCCTTACGATGCTGCTAATATCTCTTTAAGTGCT-ATAGCCCTCCAGCGGG-------------
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Foniv_019         TATG---GCCTAGTATAACGCCTTACGATGCTGCTAATATCTCTTTAAGTGCT-ATAGCTCTCCAGCGG--------------
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Foluf_002_0       TATG---GCCTAGTATAACGCCTTACGATGCTGCTAATATCTCTTTAAGTGCT-ATAGCTCTCCAGCGGG-------------
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Fomln_013         TATG---GCCTAGTATAACGCCTTACGATGCTGCTAATATCTCTTTAAGTGCT-ATAGCTCTCCAGCGGG-------------
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Focuc_013         ------------------------------------------------------------------------------------
Focuc_037         ------------------------------------------------------------------------------------
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Foniv_010_0       TATG---GCCTAGTATAACGCCTTACGATGCTGCTAATATCTCTTTAAGTGCT-ATAGCTCTCCAGCGGG-------------
Foniv_020_1       TATG---GCCTAGTATAACGCCTTACGATGCTGCTAATATCTCTTTAAGTGCT-ATAGCCCTCCAGCGGG-------------
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fp7335 rev< Fomom

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Marker #98

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Fomom_001    GACTACGATCAAGTCATCAACAGCTTCCTCCCCTCCAAGATGGTGGGGAAACGAAGTTCTGTCAGGCATTACGTGTATTCGGTCCATTGATGCAGATTCG
Fomom_004    GACTACGATCAAGTCATCAACAGCTTCCTCCCCTCCAAGATGGTGGGGAAACGAAGTTCTGTCAGGCATTACGTGTATTCGGTCCATTGATGCAGATTCG
Fopis_HDV247 GACTACGATCAAGTCATCAACTGCTTCCTCCCCTCCAAGATGGTGGGGAAATGAAGTTCTGTCAGGCATTACGTGTATTCGGTCCATTGATGCAGATTCG
Forap_PHW815 GACTACGATCAAGTCATCAACTGCTTCCTCCCCTCCAAGATGGTGGGGAAACGAAGTTCTGTCAGGCATTACGTGTATTCGGTCCATTGATGCAGATTCG

            301
Fomom_001    TATATTCATCTTGCCCTCTGTTGGATTCTGCCCCTTAGAGGTTTTACCATTTCGGTCGTAATCTTAAAGTATCCCTGCTTGCACGTAATTTGATTTGATT
Fomom_004    TATATTCATCTTGCCCTCTGTTGGATTCTGCCCCTTAGAGGTTTTACCATTTCGGTTGTAATCTTAAAGTATCCCTGCTTGCACGTAATTTGATTTGATT
Fopis_HDV247 TATATTCATCTTGCCTTCTGTTGAATTCTGCCCCTTACAGGTTTTACCATTTCGGTTGTAATCTTAAAGTATCCCTGCTTGCACGTAAC---ACCCAGTT
Forap_PHW815 TATATTCATCTTGCCTTCTGTTGAATTCTGCCCCTTAGAGGTTTTACCATTTCGGTTGTAGTCTTAAAGTATCCCTGCTTGCACGTAAC---ACCCAGTT
```
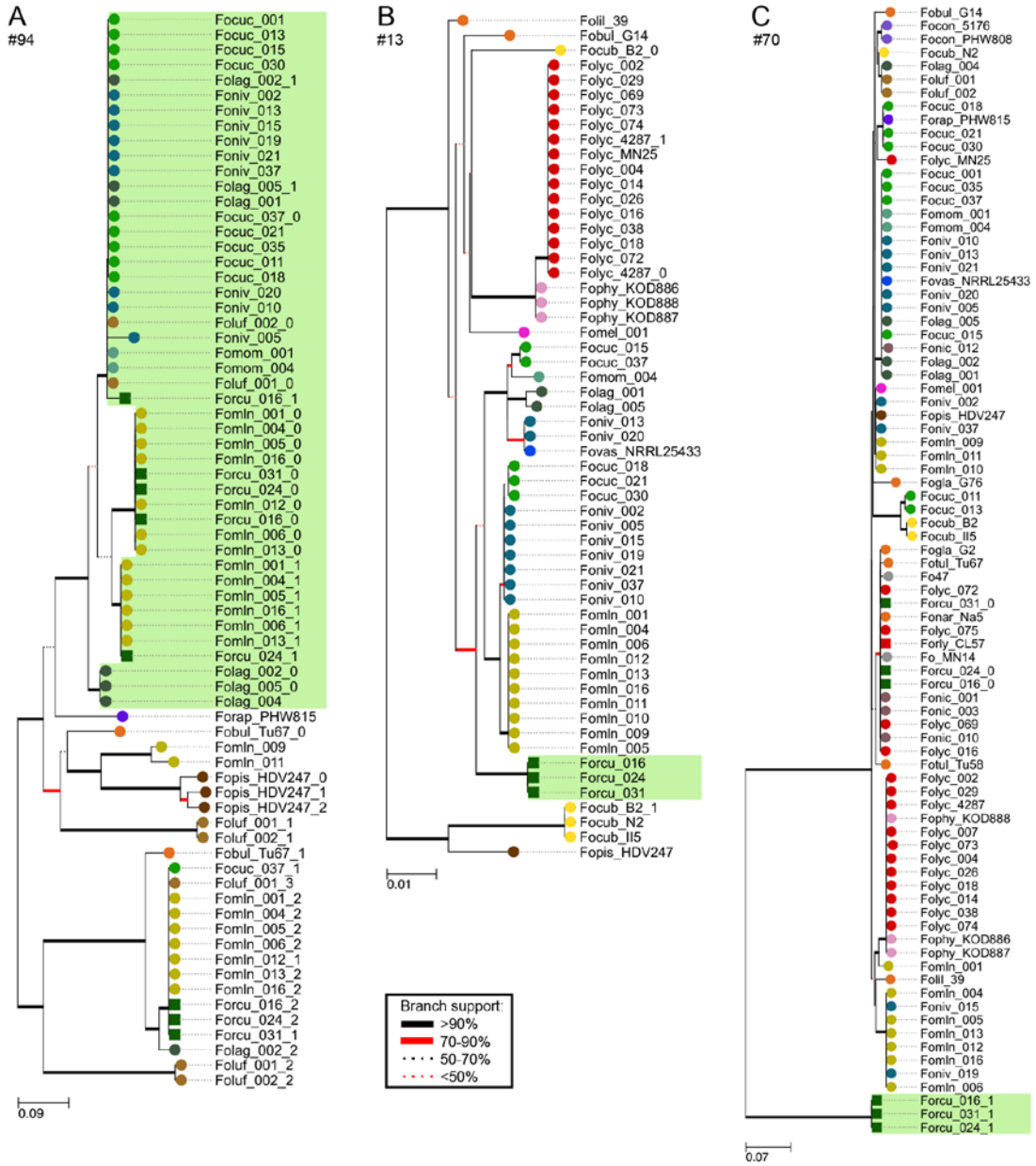
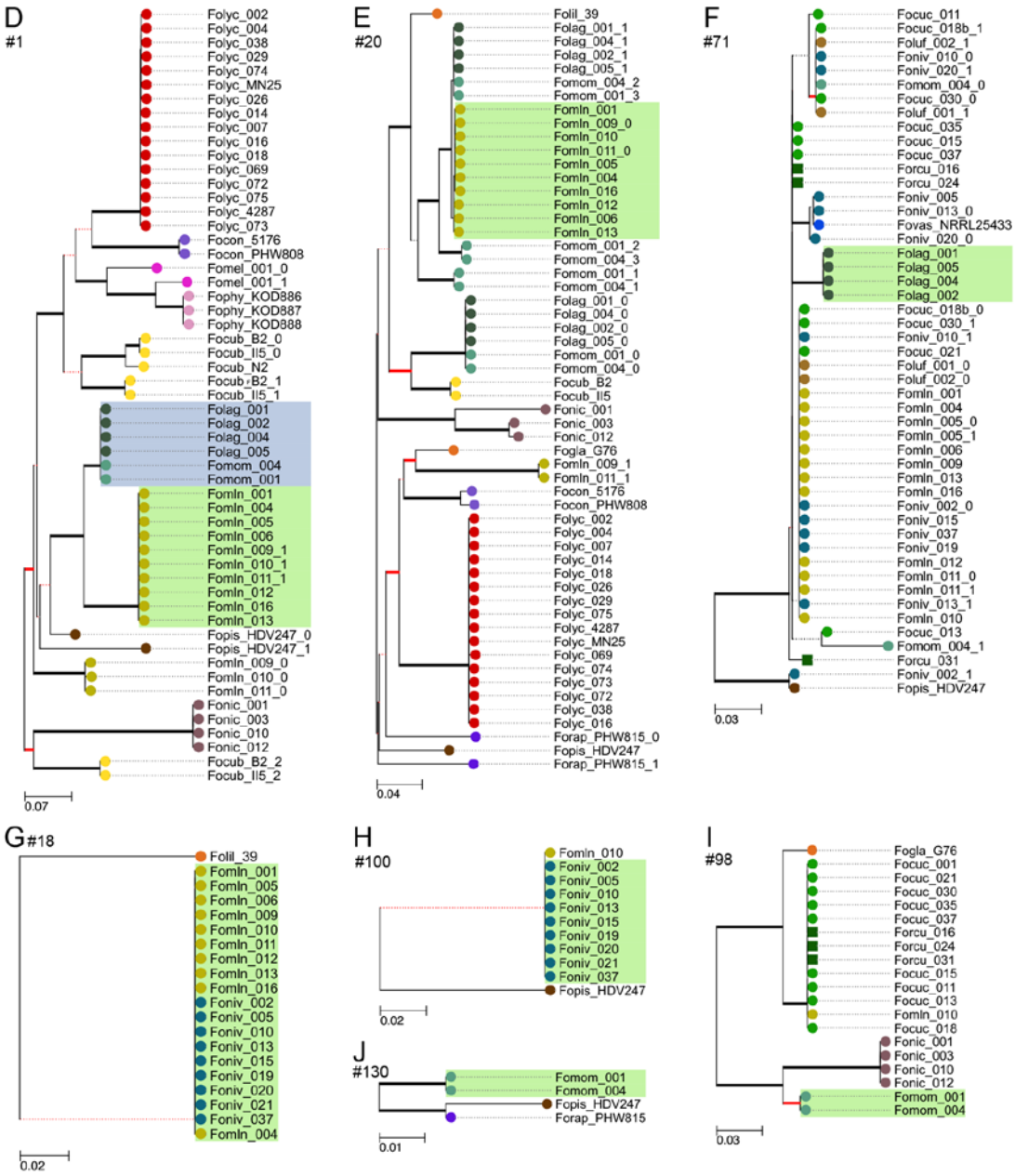

fp7336 rev< Fomom

```
            401
Fomom_001    TGATTTGATTTGATTATCCTACGCGGTT-------GTAGTCGTCTAAA--------CGACTATGCCGGGATAACGGGGTCCGGCGAAC
Fomom_004    TGATTTGATTTGATTATCCTACGCGGTT-------GTAGTCGTCTAAA--------CGACTATGCCGGGATAACGGGGTCCGGCGAAC
Fopis_HDV247 C--CTTATTCTTACGGCCCT-CGCGGTTACGTCACGTGGTCTCCACAAATTTCCACCAACCATGGAAGGATCA------CCAGCA---
Forap_PHW815 C--CTTATTCTTATGACCCT-CGCGGTTACGTCACGTGGTCTCCACAAATTTCCACCAACCATGGAAGGATCA------CCAGCA---
```

Marker #130




(Figure is continued on next page)

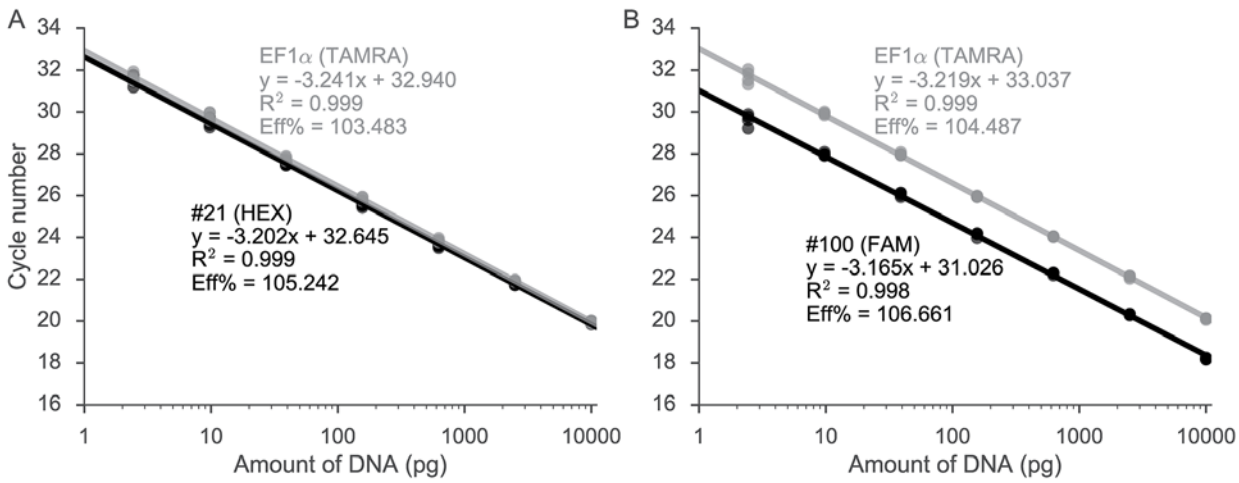



**Supplementary data S2: Phylogenetic tree of genes selected as marker genes for cucurbit infecting *formae speciales*.**

Separation of a clade that includes all strains belonging to a *forma specialis* indicates sequence similarity within and sequence dissimilarity between *formae speciales*. Coloured highlights in the tree reflect the target f. sp. of the marker.

**Supplementary data S3: Average disease index found for the bio-assays performed on strains that were suspected to belong to a different *forma specialis* than reported.**
Values given are the average disease indices (0-4) that were given to 5-8 individual plants, 2 weeks post inoculation. N.t. = not tested.

| Isolate | Reported f. sp. | *Cucumis sativus* cv Paraiso | *Cucumis melo* cv Cha-T | *Citrullus lanatus* cv Black Diamond | Conclusion |
|---|---|---|---|---|---|
| 14150 | *cucurbitacearum* | 3.2 | 4 | n.t. | *radicis-cucumerinum* |
| Focuc014 | *cucumerinum* | 2.63 | 3.88 | n.t. | *radicis-cucumerinum* |
| Focuc022 | *cucumerinum* | 0 | n.t. | n.t. | *non-pathogenic* |
| Focuc028 | *cucumerinum* | 0 | n.t. | n.t. | *non-pathogenic* |
| Focuc039 | *cucumerinum* | 0 | 0 | n.t. | *non-pathogenic* |
| Focuc040 | *cucumerinum* | 3.2 | 4 | 4 | *radicis-cucumerinum* |
| Fomln002 | *melonis* | n.t. | 0.25 | n.t. | *non-pathogenic* |
| Fomln017 | *melonis* | 0 | 4 | 0 | *melonis* |
| Fomln021 | *melonis* | n.t. | 4 | n.t. | *melonis* |
| Fomln023 | *melonis* | n.t. | 3.63 | 3 | *melonis/niveum* |
| Fomln024 | *melonis* | n.t. | 4 | n.t. | *melonis* |
| Fomln025 | *melonis* | n.t. | 3.75 | n.t. | *melonis* |
| Fomln026 | *melonis* | n.t. | 4 | n.t. | *melonis* |
| Foniv034 | *niveum* | n.t. | n.t. | 0 | *non-pathogenic* |
| Foniv035 | *niveum* | n.t. | n.t. | 0 | *non-pathogenic* |
| Foniv038 | *niveum* | n.t. | n.t. | 0 | *non-pathogenic* |




**Supplementary data S4: Taqman assays on effector candidates can detect genomic DNA quantities as low as 2.5 pg.**
Standard curves for DNA quantification were generated using a 4-fold serial dilution of Fo f. sp. *niveum* genomic DNA with **(A)** marker #21, **(B)** marker #100. Both standard curves were generated in duplex with the control gene, *EF1α.* Four technical replicates were used per dilution.