



UvA-DARE (Digital Academic Repository)

Transcription Factors Encoded on Core and Accessory Chromosomes of *Fusarium oxysporum* Induce Expression of Effector Genes

van der Does, H.C.; Fokkens, L.; Yang, A.; Schmidt, S.M.; Langereis, L.; Lukasiwicz, J.M.; Hughes, T.R.; Rep, M.

DOI

[10.1371/journal.pgen.1006401](https://doi.org/10.1371/journal.pgen.1006401)

Publication date

2016

Document Version

Other version

Published in

PLOS Genetics

[Link to publication](#)

Citation for published version (APA):

van der Does, H. C., Fokkens, L., Yang, A., Schmidt, S. M., Langereis, L., Lukasiwicz, J. M., Hughes, T. R., & Rep, M. (2016). Transcription Factors Encoded on Core and Accessory Chromosomes of *Fusarium oxysporum* Induce Expression of Effector Genes. *PLOS Genetics*, 12(11), Article e1006401. <https://doi.org/10.1371/journal.pgen.1006401>

General rights

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.

UvA-DARE is a service provided by the library of the University of Amsterdam (<https://dare.uva.nl>)

A

	≥1 TF DBS IN PROMOTER	all genes					gene upregulated in planta					genes downregulated in planta				
		ALL	CORE	ACC	no 14	only14	ALL	CORE	ACC	no 14	only14	ALL	CORE	ACC	no 14	only14
aTF1 fwd	15351	11747	3604	3271	332	726	572	154	104	50	105	97	8	8	0	
aTF1 rev	15399	11884	3515	3190	323	700	554	146	96	50	115	105	10	10	0	
effector motif fwd	136	119	17	14	2	20	18	2	1	1	0	0	0	0	0	
effector motif rev	141	119	22	19	3	14	11	3	0	3	0	0	0	0	0	
aTF2 fwd	13664	10654	3010	2725	284	602	484	118	79	39	88	79	9	9	0	
aTF2 rev	14250	11366	2884	2589	293	604	480	124	77	47	94	88	6	6	0	
cTF4 fwd	3650	2681	969	884	85	155	119	36	32	4	26	23	3	3	0	
cTF4 rev	3610	2666	944	865	79	156	116	40	30	10	26	24	2	2	0	
aTF5 fwd	9017	6840	2177	1967	210	403	313	90	65	25	62	53	9	9	0	
aTF5 rev	9292	7110	2182	1973	209	393	300	93	64	29	68	59	9	9	0	
aTF7 fwd	10982	8497	2485	2277	208	453	363	90	65	25	75	70	5	5	0	
aTF7 rev	10460	8063	2397	2180	210	426	346	80	57	23	73	67	6	6	0	
SGE1 fwd	2749	2034	715	641	74	178	141	37	16	21	19	16	3	3	0	
SGE1 rev	2770	2022	748	679	69	179	142	37	18	19	16	15	1	1	0	
ALL	20932	16174	4758	4321	436	896	708	188	125	63	140	127	13	13	0	

B

	≥1 TF DBS IN DOWNSTREAM ATG	all genes					gene upregulated in planta					genes downregulated in planta				
		ALL	CORE	ACC	no 14	only14	ALL	CORE	ACC	no 14	only14	ALL	CORE	ACC	no 14	only14
aTF1 fwd	17693	13556	4133	3766	365	758	600	158	113	45	115	104	11	11	0	
aTF1 rev	17096	13100	3993	3630	361	741	594	147	103	44	115	105	10	10	0	
effector motif fwd	85	62	23	21	2	3	2	1	1	0	0	0	0	0	0	
effector motif rev	108	87	21	20	1	6	5	1	1	0	1	1	0	0	0	
aTF2 fwd	13768	10747	3018	2742	274	565	455	110	73	37	95	87	8	8	0	
aTF2 rev	13692	10639	3051	2766	283	567	439	128	89	39	88	82	6	6	0	
cTF4 fwd	3616	2710	906	836	70	166	129	37	27	10	27	23	4	4	0	
cTF4 rev	4226	3186	1040	952	87	179	154	25	16	9	32	28	4	4	0	
aTF5 fwd	9385	7134	2250	2042	207	377	291	86	59	27	62	54	8	8	0	
aTF5 rev	9609	7360	2248	2049	198	399	314	85	58	27	67	61	6	6	0	
aTF7 fwd	11106	8619	2487	2249	237	457	367	90	63	27	69	63	6	6	0	
aTF7 rev	9961	7696	2263	2051	212	417	334	83	53	30	63	58	5	5	0	
SGE1 fwd	2168	1649	516	472	44	107	81	26	20	6	12	11	1	1	0	
SGE1 rev	2255	1714	540	486	54	94	75	19	12	7	20	19	1	1	0	
ALL	20932	16174	4758	4321	436	896	708	188	125	63	140	127	13	13	0	

C

TF DBS IN PROMOTER	ALL	CORE	ACC	no 14	only 14	in planta UP					in planta DOWN					SSPs					with MIMP					found in XS				
						ALL	CORE	ACC	no 14	only 14	ALL	CORE	ACC	no 14	only 14	ALL	CORE	ACC	no 14	only 14	ALL	CORE	ACC	no 14	only 14	ALL	CORE	ACC	no 14	only 14
aTF1 fwd	3528	2621	907	826	80	188	154	34	19	15	27	26	1	1	0	160	113	47	41	6	22	2	20	9	11	14	8	6	0	6
aTF1 rev	3491	2631	860	772	87	214	164	50	29	21	30	25	5	5	0	145	112	33	27	6	24	1	23	8	15	18	9	9	1	8
effector motif fwd	136	119	17	14	2	20	18	2	1	1	0	0	0	0	0	9	8	1	0	1	1	0	1	0	1	2	1	1	0	1
effector motif rev	141	119	22	19	3	14	11	3	0	3	0	0	0	0	0	20	17	3	1	2	1	0	1	0	1	2	1	1	0	1
SGE1 fwd	2749	2034	715	641	74	178	141	37	16	21	19	16	3	3	0	155	118	37	31	6	22	0	22	6	16	22	13	9	1	8
SGE1 rev	2770	2022	748	679	69	179	142	37	18	19	16	15	1	1	0	166	117	49	41	8	24	1	23	7	16	13	8	5	0	5
ALL	20932	16174	4758	4321	436	896	708	188	125	63	140	127	13	13	0	876	671	204	181	23	73	4	69	28	41	55	36	19	3	16

D

TF DBS 1000 bp DOWNSTREAM ATG	ALL	CORE	ACC	no 14	only 14	in planta UP					in planta DOWN					SSPs					with MIMP					found in XS				
						ALL	CORE	ACC	no 14	only 14	ALL	CORE	ACC	no 14	only 14	ALL	CORE	ACC	no 14	only 14	ALL	CORE	ACC	no 14	only 14	ALL	CORE	ACC	no 14	only 14
aTF1 fwd	6664	4999	1664	1514	150	297	236	61	47	14	35	34	1	1	0	274	194	80	72	8	22	2	20	14	6	25	19	6	2	4
aTF1 rev	5678	4191	1486	1340	144	269	209	60	45	15	42	41	1	1	0	263	194	69	62	7	22	0	22	13	9	18	17	1	0	1
effector motif fwd	85	62	23	21	2	3	2	1	1	0	0	0	0	0	0	8	4	4	3	1	0	0	0	0	0	1	1	0	0	0
effector motif rev	108	87	21	20	1	6	5	1	1	0	1	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0
SGE1 fwd	2168	1649	516	472	44	107	81	26	20	6	12	11	1	1	0	117	85	32	29	3	12	2	10	7	3	7	6	1	0	1
SGE1 rev	2255	1714	540	486	54	94	75	19	12	7	20	19	1	1	0	124	92	32	28	4	11	0	11	2	9	4	3	1	0	1
ALL	20932	16174	4758	4321	436	896	708	188	125	63	140	127	13	13	0	876	671	204	181	23	73	4	69	28	41	55	36	19	3	16

SUPP FIG 4