

Supplementary Material

Table 1: Antibodies used for (immuno)histochemical staining.

Primary antibody	Dilution	Source (article nr)	Type	Secondary Antibody	Dilution	Source
Fluorescent immunohistochemistry						
Hoechst	1:1000	Invitrogen, 11534886	NA	NA	NA	NA
Mouse-anti-NeuN	1:500	Sigma-Aldrich MAB377	monoclonal	Donkey-anti-Mouse Alexa Fluor 594	1:1000	Jackson ImmunoResearch 715-585-150
				Donkey-anti-Mouse Alexa Fluor 488		Jackson ImmunoResearch 715-546-150
Rabbit-anti-GFAP	1:1000	CiteAb Z0334	polyclonal	Donkey-anti-Rabbit Alexa Fluor 488	1:1000	Jackson ImmunoResearch 711-545-152
				Donkey-anti-Rabbit Alexa Fluor 594		594, Jackson ImmunoResearch 711-496-152
Mouse-anti-NN18	1:1000	Sigma N5264	monoclonal	Donkey-anti-Mouse Alexa Fluor 594	1:1000	Jackson ImmunoResearch 715-585-150
Rat-anti-MBP	1:1000	Sigma-Aldrich MAB386	monoclonal	Donkey-anti-Rat Cy3	1:1000	Jackson ImmunoResearch 712-165-153
Mouse-anti-MAP2	1:1000	BioLegend SMI-52P	monoclonal	Donkey-anti-Mouse Alexa Fluor 594	1:1000	Jackson ImmunoResearch 715-585-150
Fluorescein labeled WFA	1:500	Vector Laboratories FL-1351	NA	NA	NA	NA

NA – not applicable

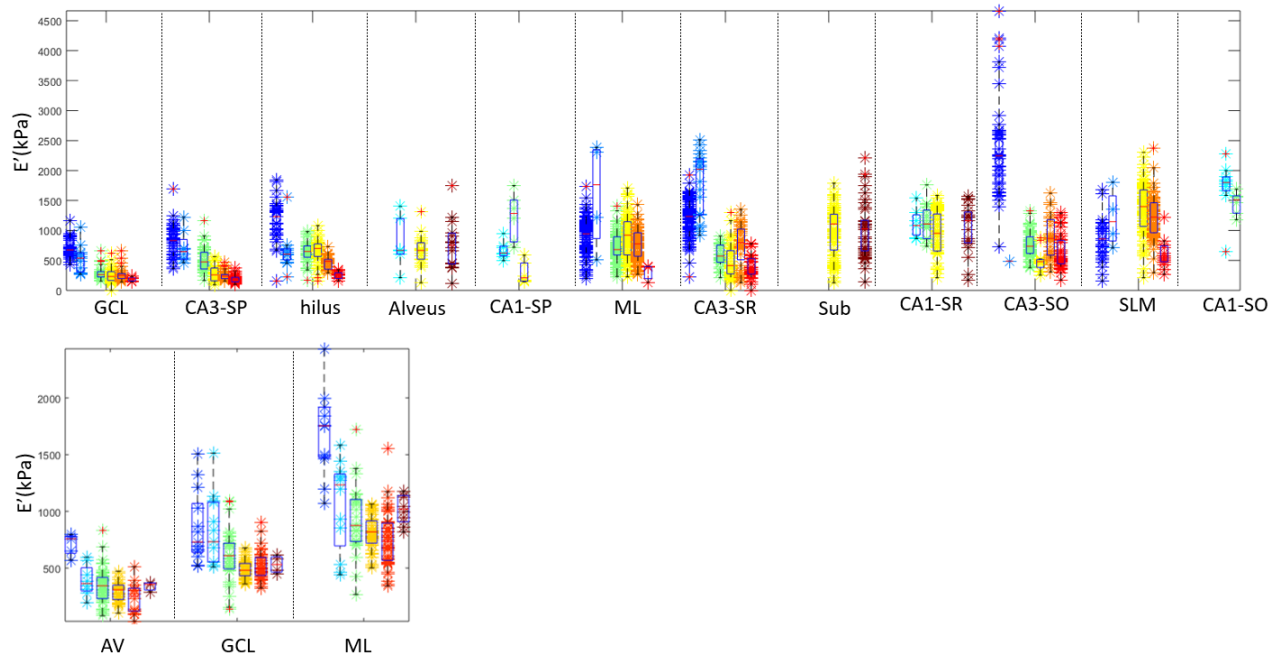


Figure 1: Boxplot and scattered data of storage modulus values for individual juvenile animals indicated with different colors (N=8). Top graph for regions in hippocampus and bottom for regions in cerebellum.

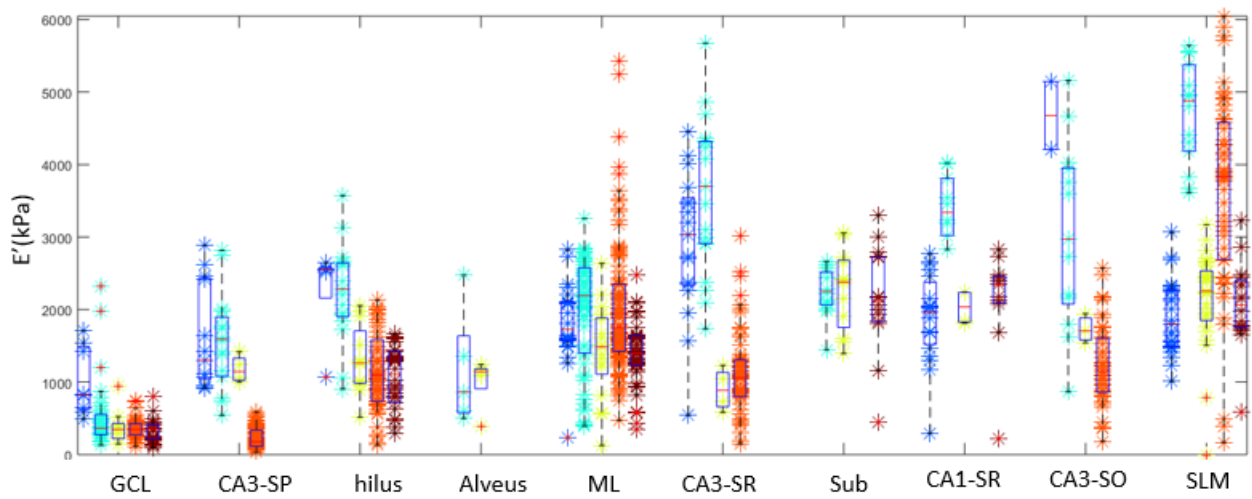


Figure 2: Boxplot and scattered data of storage modulus values for individual adult animals indicated with different colors (N=8).

Table 2: Mean storage modulus E' and damping factor $\tan(\delta)$ of measured brain regions of 1 and 6-month old mice. SEM for data pooled from all animals, n - number of data, N - number of animals.

	1 month old						6 months old					
	E' (Pa)	SEM	$\tan(\delta)$	SEM	n	N	E' (Pa)	SEM	$\tan(\delta)$	SEM	n	N
ML	823	18	0.49	0.04	335	6	1835	48	0.46	0.03	263	5
GCL	367	19	0.54	0.03	146	6	449	31	0.44	0.04	123	5
Hilus	689	26	0.54	0.03	173	6	1347	62	0.46	0.03	120	5
CA3-SO	1067	61	0.46	0.03	192	6	1736	147	0.46	0.03	63	4
CA3-SP	459	23	0.50	0.05	232	6	620	66	0.54	0.19	114	4
CA3-SR	862	34	0.50	0.03	232	6	1795	117	0.46	0.03	115	4
SLM	1189	31	0.48	0.02	204	5	2918	115	0.49	0.03	138	5
CA1-SO	1624	93	0.42	0.02	16	2						
CA1-SP	727	105	0.44	0.02	19	2						
CA1-SR	1019	38	0.49	0.02	92	4	2303	125	0.58	0.05	44	4
Sub	1000	39	0.51	0.04	116	2	2222	89	0.50	0.02	40	3
Alv	718	54	0.53	0.03	40	3	1082	187	0.47	0.04	10	2
Cer-ML	915	27	0.56	0.03	149	6						
Cer-GCL	587	17	0.60	0.03	146	6						
Cer-Av	332	13	0.66	0.04	85	6						

Table 3: Mean relative area covered with stained component for different brain regions of 1 and 6 month old mice. n - number of data, N - number of animals.

	1 month old										6 months old									
	Hoechst (nuclei)		NeuN (neurons)		GFAP (astrocytes)		NN18 (axons)		MBP (myelin)		Hoechst (nuclei)		NeuN (neurons)		GFAP (astrocytes)		NN18 (axons)		MBP (myelin)	
	A(%)	SD	A(%)	SD	A(%)	SD	A(%)	SD	A(%)	SD	A(%)	SD	A(%)	SD	A(%)	SD	A(%)	SD	A(%)	SD
ML	12.7	1.4	2.5	1.4	6.2	4.4	2.3	1.2	1.4	0.6	10.5	2.6	1.2	0.5	22.4	6.5	1.4	1.3	2.2	1.9
GCL	95.2	3.3	91.7	2.5	5.3	4.7	0.6	1.0	0.4	0.3	95.3	2.2	87.3	4.6	5.0	1.7	0.1	0.1	1.2	1.4
Hilus	20.4	2.9	4.3	2.2	15.1	8.2	11.3	8.0	3.3	3.2	17.3	5.3	2.3	0.8	28.2	7.7	11.5	5.5	7.7	6.2
CA3-SO	8.4	1.8	1.8	1.3	4.6	3.1	5.4	4.4	15.3	8.5	8.0	1.6	1.8	0.6	9.1	4.2	20.5	15.0	8.2	4.7
CA3-SP	31.7	9.8	79.7	12.8	0.2	0.1	30.9	5.7	9.4	6.1	33.1	10.6	75.4	9.6	2.0	1.3	33.5	7.3	11.7	6.4
CA3-SR	7.0	1.0	2.0	1.1	3.2	2.0	27.9	11.6	9.4	5.3	6.4	1.4	0.8	0.3	9.2	2.4	42.6	21.0	11.9	7.7
SLM	13.0	2.0	1.0	0.4	15.9	4.0	7.0	3.2	2.7	1.5	11.5	1.9	0.6	0.2	25.1	5.2	7.4	3.0	8.2	6.7
CA1-SO	12.0	3.0	3.0	1.6	6.9	4.0	21.6	12.0	13.1	8.0										
CA1-SP	51.4	11.0	63.0	15.1	4.4	3.0	4.2	2.3	13.7	9.0										
CA1-SR	8.0	1.0	1.0	0.7	11.2	5.0	5.5	1.5	2.5	2.0	5.9	1.2	1.2	0.5	21.9	5.0	6.1	4.3	1.8	1.0
Sub	21.0	3.0	26.0	10.6	2.7	2.0	3.7	2.0	12.5	10.0	14.1	3.2	21.0	2.3	7.9	2.6	3.0	2.2	15.8	8.2
Alv	28.7	6.0	1.0	0.7	31.8	13.0	92.5	4.3	93.8	5.0	20.7	3.2	0.7	0.6	30.8	8.4	85.3	3.8	95.5	2.8
Cer-ML	1.0	1.0	0.0	0.2	5.7	3.0	4.3	2.5	0.1	0.0										
Cer-GCL	94.0	4.5	76.0	9.0	6.7	3.0	17.8	4.9	10.4	4.0										
Cer-Av	15.0	6.0	4.0	2.0	49.4	12.0	96.4	1.1	94.7	3.0										
	n	N	n	N	n	N	n	N	n	N	n	N	n	N	n	N	n	N	n	N
	25	3	6	3	6	3	6	3	7	3	22	3	6	2	6	3	6	2	8	3

Table 4: Statistical differences in terms of p-values between juvenile and adult brain components of hippocampal regions. Arrows indicate an increase or decrease in A_{rel} . **** $p < 0.0005$, *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

	GCL	CA3-SP	hilus	Alveus	ML	CA3-SR	Sub	CA1-SR	CA3-SO	SLM
Hoechst (nuclei)	1	1	↓*	↓****	1	1	↓****	1	1	1
NeuN (neurons)	1	1	1	1	1	1	↓0.06	1	1	1
GFAP (astrocytes)	1	1	↑****	1	↑****	↑0.08	1	↑**	1	↑**
NN18 (axons)	1	1	1	↓0.06	1	↑*	1	1	↑0.06	1
MBP (myelin)	1	1	1	1	1	1	1	1	↓*	↑0.07

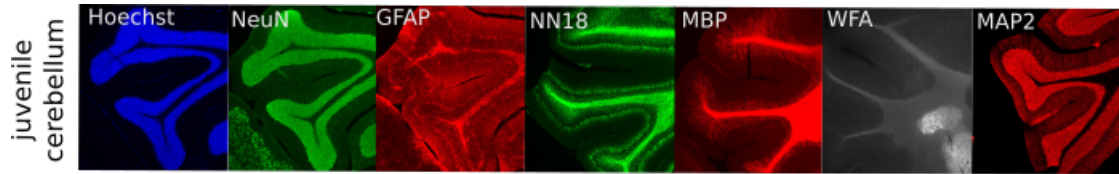


Figure 3: Fluorescent images of (immuno)histochemical stainings of juvenile mouse cerebellum. Dimensions of images are 2065 μm (width) and 1878 μm (height).

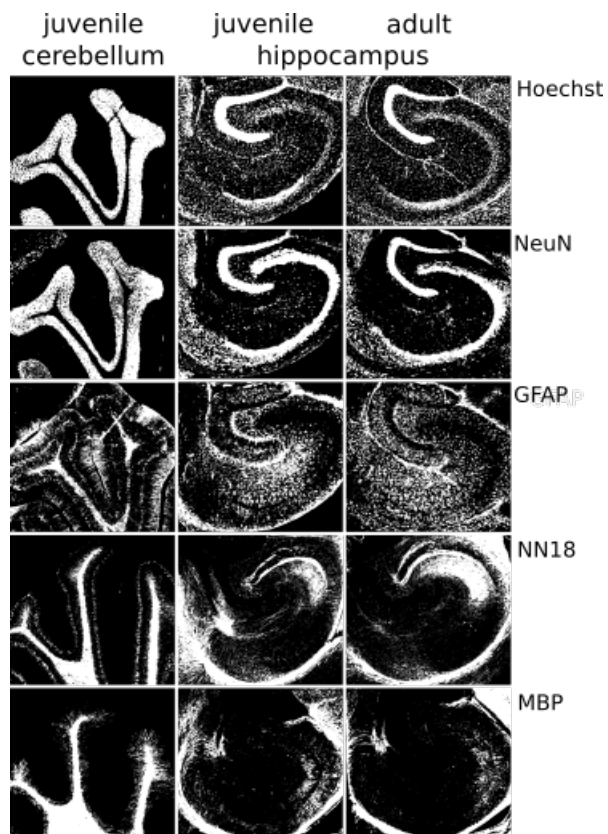


Figure 4: Thresholded fluorescent images used for estimation of relative area covered by stained component. Dimensions of images are 2065 μm (width) and 1878 μm (height).