

Table 3, supplement. MacroH2A1 content of physiologically biased nervous system genes in mouse liver.¹

Gene Symbol	Length	macroH2A counts (Raw) ²	macroH2A (RPKM) ²	Starting material counts (Raw) ²	Starting material (RPKM) ²	macroH2A1 content (macroH2A vs SM) ²	p-value (macroH2A vs SM) ²
Pdyn	1869	16	0.6866	11	0.472338	1.45362	0.335354
Drd4	2997	34	0.909883	14	0.374896	2.42703	0.003398
Chrm2	1606	14	0.699158	15	0.749575	-1.07211	0.851326
Ptgds	3039	61	1.60987	19	0.501756	3.20848	1.48E-06
Aanat	3994	11	0.220891	20	0.401875	-1.81934	0.103119
Nefl	3855	32	0.665762	23	0.478821	1.39042	0.224771
Zic5	6500	81	0.999459	26	0.321018	3.1134	5.22E-08
Npy5r	8131	36	0.355101	27	0.266495	1.33248	0.257082
Htr1a	4442	17	0.306947	30	0.542016	-1.76583	0.056024
Kcnv1	8652	14	0.129779	31	0.287551	-2.2157	0.010225
Drd1a	4476	45	0.806335	33	0.591689	1.36277	0.174264
Chrm4	7642	117	1.22792	34	0.35706	3.43899	3.85E-12
Adcyap1	6069	31	0.409673	35	0.462829	-1.12975	0.620529
Hrh3	4751	103	1.73878	36	0.608117	2.85929	6.64E-09
Npy1r	9378	47	0.401958	46	0.393656	1.02109	0.919846
Kcns1	7496	126	1.34814	49	0.524609	2.56979	3.27E-09
Npy2r	9704	53	0.438044	60	0.496215	-1.1328	0.507909
Npy	6778	86	1.01763	60	0.710427	1.43242	0.031264
Gabra6	14616	43	0.235957	61	0.334943	-1.41951	0.076272
Chrna6	10734	66	0.493146	82	0.613087	-1.24321	0.18672
Mog	12660	111	0.703206	86	0.545173	1.28988	0.07522
Htr6	13382	171	1.02487	100	0.59972	1.70891	1.47E-05
Chrna3	15218	161	0.848519	113	0.595923	1.42387	0.003708
Htr1d	20880	238	0.914197	135	0.518887	1.76184	8.24E-08
Chrm1	19599	185	0.757061	137	0.560991	1.34951	0.00749
Chrna4	16868	162	0.770273	143	0.680365	1.13215	0.278927
Cnr1	24201	135	0.447398	152	0.504057	-1.12664	0.312897
Atp1a3	27730	307	0.887936	160	0.463063	1.91753	7.19E-12
Chrb3	31020	134	0.346462	167	0.43206	-1.24706	0.056195
Chrna5	26901	254	0.757283	170	0.507166	1.49317	4.38E-05
Sema4f	27867	390	1.12245	184	0.529904	2.11822	3.70E-18
Chrb4	20390	300	1.18004	187	0.736027	1.60326	2.79E-07
Dbh	17699	385	1.74464	187	0.847935	2.05751	6.39E-17
Pnoc	24538	394	1.28781	199	0.650854	1.97864	6.74E-16
Slc6a4	33748	427	1.01478	204	0.485123	2.0918	3.06E-19
Rtn4r	24704	546	1.77263	210	0.682215	2.59835	1.83E-35
Gabra1	51452	135	0.210438	222	0.346274	-1.64549	3.59E-06
Cplx1	31475	380	0.968302	264	0.673144	1.43848	4.75E-06
Slc6a1	34891	473	1.08728	272	0.625641	1.73786	1.35E-13
Drd3	60599	419	0.554551	336	0.444983	1.24623	0.00257
Gad1	39850	390	0.784927	336	0.676676	1.15998	0.045881
Gabrg2	88823	203	0.183301	342	0.309008	-1.6858	2.04E-09
Slc6a2	40622	578	1.14119	344	0.679621	1.67916	1.00E-14
Gabra4	88576	200	0.181095	367	0.332521	-1.83617	1.51E-12
Crhr1	42638	617	1.1606	374	0.703954	1.64868	9.28E-15
Slc6a3	41927	355	0.679091	382	0.731205	-1.07674	0.315713

Kcnq2	38986	515	1.05948	386	0.794599	1.33335	1.74E-05
Snap25	68980	324	0.376717	411	0.478176	-1.26933	0.001276
Gabra2	134794	239	0.142207	422	0.251253	-1.76682	7.35E-13
Htr2a	66021	467	0.56732	431	0.52392	1.08284	0.233276
Gria2	117857	332	0.225931	487	0.331622	-1.4678	5.28E-08
Drd2	66554	816	0.983352	600	0.723513	1.35913	9.50E-09
Chrna7	113836	412	0.290276	753	0.530866	-1.82883	7.13E-24
Gabrb2	212836	504	0.189923	848	0.319757	-1.68361	4.56E-21
Htr4	143600	632	0.352985	900	0.502988	-1.42496	6.11E-12
Grm3	240118	524	0.175025	1083	0.361971	-2.06811	3.57E-45
Slit1	143600	1920	1.07236	1122	0.627058	1.71014	7.15E-48
Sh3gl2	183925	823	0.358882	1158	0.505286	-1.40794	4.06E-14
Oprm1	249610	1074	0.345092	1353	0.435016	-1.26058	1.31E-08
Grm5	550903	1068	0.155485	1656	0.241243	-1.55155	9.63E-30
Dync1i1	302402	1525	0.404463	1949	0.517246	-1.27885	5.15E-13
Grm1	393576	1655	0.337258	2116	0.431476	-1.27936	4.85E-14
Chrm3	484192	3003	0.497429	2679	0.444043	1.12023	1.91E-05
Grin2a	414848	3112	0.60165	3074	0.594681	1.01172	0.646867
Cadps	450518	2581	0.459483	3221	0.573784	-1.24876	3.31E-17
Grik4	423937	7126	1.34815	3775	0.714636	1.88648	3.21E-229
Nrxn1	1059154	1928	0.145996	4195	0.317865	-2.17721	2.81E-189

X-linked

Plp1	14908	301	1.61935	120	0.645998	2.50674	3.22E-19
Aldp (Abcd1)	21692	519	1.91894	166	0.614155	3.12452	2.19E-43
Gabra3	223572	1573	0.564293	678	0.243378	2.31858	1.97E-81
Htr2c	234766	1533	0.523721	675	0.230748	2.26967	2.58E-76

No clear single mouse homologue

Tgif
Twist
Gpr51

Has liver EST in unigene database³

Chrm5	1747	23	1.05591	15	0.689077	1.53236	0.193365
Rab3a	4009	6	0.120035	18	0.360335	-3.00191	0.012165
Tpp1	7362	7	0.07626	30	0.327036	-4.28844	8.63E-05
Penk	4911	26	0.424616	33	0.539279	-1.27004	0.360277
Gfap	9866	158	1.28443	83	0.67516	1.9024	1.13E-06
Shh	10263	74	0.578296	54	0.422269	1.3695	0.077094
Homer3	11363	88	0.62113	55	0.388454	1.59898	0.005635
Slc25a19	13158	17	0.103622	56	0.341561	-3.29622	2.75E-06
Eno2	9456	131	1.11111	58	0.492255	2.25718	7.64E-08
Htr2b*	12935	9	0.055804	77	0.477742	-8.561	4.18E-15
Chrna2	11990	122	0.816082	101	0.676039	1.20715	0.160749
Chrm2	11186	148	1.06116	97	0.695931	1.5248	0.001094
Ppt1	22935	29	0.101413	127	0.4444	-4.3821	3.51E-16
Bche	72608	48	0.053021	185	0.204483	-3.85662	1.73E-20
Stx1a	27529	403	1.17411	162	0.472274	2.48607	7.32E-25
Adora1	36211	188	0.4164	250	0.554076	-1.33063	0.002938

Homer1	96930	84	0.069505	439	0.363476	-5.22952	1.98E-59
Stxbp1	59627	245	0.329546	376	0.506074	-1.53567	1.26E-07
Homer2	92485	227	0.196856	555	0.481605	-2.44649	9.10E-33
Mbp	110516	965	0.700318	853	0.619432	1.13058	0.008948
Slc1a2	132103	2707	1.6435	987	0.599617	2.74091	7.43E-183
App	219278	402	0.147036	1185	0.433703	-2.94964	6.53E-90

¹ Genes are from the physiologically biased nervous system gene list in S. Dorus et. al. Cell, 2004. 119(7): 1027-40.

² Values were calculated using Partek Genomics Suite software.

³ Some ESTs were from fetal liver or gall bladder, which may not indicate expression in adult hepatocytes.

* No liver ESTs, but in intron of Psm1, which is expressed in liver.