

Table S1. List the genes whose expression was activated or repressed at least 1.5-fold after macroH2A1 depletion in LD611 cells.

List of genes upregulated in macroH2A1-depleted LD611 cells

Symbol	GenBank	Fold	<i>p</i> -value
AASDHPPT	NM_015423.2	1.5189	0.00339
ABCA13	NM_152701.2	1.89251	0.00316
ABT1	NM_013375.2	1.600815	0.00228
ADAMTS6	NM_197941.2	1.53032	0.00317
ADAMTSL4	NM_019032.3	1.612625	0.00215
ALDH3B2	NM_000695.3	1.75282	0.00144
ALDOC	NM_005165.2	1.88923	0.00174
ANKRD10	NM_017664.2	2.46871	0.01042
APOBEC3B	NM_004900.3	1.78384	0.00192
ARHGEF6	NM_004840.2	1.62117	0.00204
ASS1	NM_000050.3	2.00077	0.00068
ATP6V1C1	NM_001695.3	2.38991	0.01564
C10ORF46	NM_153810.3	1.97217	0.00062
C19ORF21	NM_173481.2	1.70494	0.004
C1R	NM_001733.4	1.62432	0.00213
C1S	NM_001734.2	1.780685	0.0014
C21ORF129	NM_152506.1	1.817305	0.00177
C3	NM_000064.1	1.81971	0.00112
C3ORF23	NM_001029839.1	1.593205	0.00256
C4BPB	NM_001017367.1	1.646275	0.00271
C5ORF25	NM_198567.1	1.583765	0.00238
C9ORF58	NM_001002260.1	1.62403	0.00235
CA12	NM_001218.3	2.42395	0.00179
CA2	NM_000067.1	1.73104	0.00126
CABC1	NM_020247.3	1.66998	0.00159
CALB1	NM_004929.2	1.66038	0.00197
CBL	NM_005188.2	1.95339	0.00463
CBS	NM_000071.1	1.56258	0.00304
CD70	NM_001252.2	3.52883	0.00012
CD99L2	NM_134445.2	1.6696	0.00215
CDR2L	NM_014603.1	1.841965	0.00087
CFB	NM_001710.4	2.245405	0.00182
CITED2	NM_006079.3	1.685435	0.00191
CKB	NM_001823.3	1.84329	0.00319
CKMT1A	NM_001015001.1	1.7475	0.00223
CKMT1B	NM_020990.3	1.607005	0.00227
CLCF1	NM_013246.2	1.61342	0.00241
COBL	NM_015198.2	1.8934	0.00072
COCH	NM_004086.1	1.84184	0.00371

CPA4	NM_016352.2	1.894235	0.00198
CPS1	NM_001875.2	1.7466	0.00131
CPT1C	NM_152359.1	1.66648	0.00268
CR2	NM_001877.3	1.77561	0.00279
CRABP2	NM_001878.2	2.9512	0.00036
CTSC	NM_001814.2	1.77114	0.00108
CXCL5	NM_002994.3	1.57807	0.00256
CXCL6	NM_002993.2	1.94407	0.00479
CYP24A1	NM_000782.3	1.582825	0.00239
CYP4F11	NM_021187.2	1.799665	0.00109
DENND2D	NM_024901.3	1.61993	0.00282
DHCR7	NM_001360.1	2.16512	0.0046
E2F5	NM_001951.2	1.55908	0.00308
EDN1	NM_001955.2	1.962725	0.00072
EML1	NM_004434.2	1.79887	0.00392
EPDR1	NM_017549.2	1.693505	0.00266
FADS2	NM_004265.2	1.61561	0.00252
FBXO6	NM_018438.4	1.543325	0.00296
FER1L4	NR_001442.2	1.59686	0.0028
FERMT2	NM_006832.1	1.936325	0.00426
FLJ10916	NM_018271.2	1.702365	0.00235
FLJ12684	NM_024534.4	2.469775	0.00034
FSTL3	NM_005860.1	1.93398	0.00081
GABBR2	NM_005458.5	1.78219	0.00109
GADD45A	NM_001924.2	1.73045	0.00156
GAL	NM_015973.2	1.6045	0.00232
GDF15	NM_004864.1	1.877265	0.00076
GFPT2	NM_005110.1	1.848415	0.00101
GGT6	NM_153338.1	1.602585	0.00283
GPR68	NM_003485.3	1.60856	0.00254
GYG2	NM_003918.2	1.734895	0.00361
H19	NR_002196.1	2.298225	0.0004
HBE1	NM_005330.3	1.845475	0.00351
HES2	NM_019089.3	1.860775	0.00321
HSD17B6	NM_003725.2	1.5266	0.00323
HSD17B7P2	NM_182829.1	1.58695	0.00242
HSPA2	NM_021979.2	1.739845	0.00154
HSPB8	NM_014365.2	1.58273	0.0024
ID1	NM_004508.2	2.286945	0.00147
IGFL1	NM_198541.1	4.92573	0.00183
IL12RB2	NM_001559.2	1.6191	0.00216
IL1R2	NM_173343.1	1.75867	0.00111
IL1RN	NM_173842.1	2.66951	0.00014
IL20RB	NM_144717.2	1.541115	0.00315

ILDR1	NM_175924.2	1.705065	0.00186
KIAA1191	NM_020444.3	2.00908	0.00052
KIAA1737	NM_033426.2	1.931645	0.00222
KLK10	NM_145888.1	2.241995	0.00177
KLK11	NM_006853.2	1.98211	0.00297
KLK6	NM_002774.3	1.958315	0.00058
KLK7	NM_139277.1	1.807535	0.00641
KRT13	NM_002274.2	1.725855	0.00316
KRT17	NM_000422.1	1.74747	0.0052
KRT34	NM_021013.3	2.999825	0.00549
KRT6B	NM_005555.2	1.882135	0.00074
KRT8	NM_002273.2	1.721485	0.00169
KTELC1	NM_152305.1	1.69024	0.00164
LAMA2	NM_000426.2	1.62032	0.00201
LAYN	NM_178834.2	1.721265	0.00201
LIN28B	NM_001004317.2	2.686045	0.00248
LRRC61	NM_023942.1	1.85412	0.00238
MARCO	NM_006770.3	1.59552	0.00225
MINA	NM_153182.1	1.60547	0.0033
MKX	NM_173576.1	1.67449	0.00292
MLLT6	NM_005937.2	1.58076	0.00279
MMP7	NM_002423.3	2.61264	0.00018
MRAS	NM_012219.2	1.598395	0.00242
MRS2	NM_020662.1	1.60961	0.00216
MUC1	NM_001044390.1	1.790265	0.00149
MUC16	NM_024690.2	1.5942	0.00283
MUC20	NM_152673.1	1.6958	0.00264
MYEOV	NM_138768.2	2.90523	0.00041
NFE2	NM_006163.1	1.88919	0.00142
NOV	NM_002514.2	1.639855	0.00278
NPL	NM_030769.1	1.638405	0.00185
OLR1	NM_002543.2	1.96041	0.00076
PCDH19	NM_020766.1	2.144875	0.00499
PCOLCE2	NM_013363.2	1.78699	0.00128
PFKFB4	NM_004567.2	1.56916	0.00258
PHGDH	NM_006623.2	1.70643	0.0018
PLEKHA3	NM_019091.3	1.58004	0.00253
PODXL	NM_001018111.1	1.7292	0.00127
PPP2R2A	NM_002717.2	1.679315	0.0022
PROS1	NM_000313.1	1.96693	0.00077
PRTFDC1	NM_020200.5	1.925875	0.00096
PSAT1	NM_021154.3	1.817135	0.00097
PTGER2	NM_000956.2	2.385095	0.00848
QPRT	NM_014298.3	1.95075	0.00128

RAB11FIP5	NM_015470.1	1.624565	0.00199
RAB17	NM_022449.1	1.5603	0.00281
REEP1	NM_022912.1	2.716075	0.00402
REXO1	NM_020695.2	1.59857	0.00242
RRP9	NM_004704.3	1.56457	0.00315
RSL1D1	NM_015659.1	1.55549	0.00301
RYK	NM_002958.3	1.73283	0.00214
SALL4	NM_020436.2	1.992475	0.0008
SC4MOL	NM_006745.3	1.97675	0.00598
SEC23B	NM_032985.4	2.19484	0.00069
SERP2	NM_001010897.1	1.733225	0.00123
SERPINB13	NM_012397.2	1.78277	0.00225
SERPINB4	NM_002974.1	2.135895	0.0078
SH2D4A	NM_022071.2	1.614235	0.00285
SLC13A5	NM_177550.2	1.661425	0.00179
SLC27A2	NM_003645.2	2.370155	0.00105
SLC35B3	NM_015948.2	2.68784	0.00037
SLC4A11	NM_032034.1	1.71226	0.00206
SLC6A9	NM_006934.2	1.66508	0.00216
SLC9A3R1	NM_004252.1	1.88271	0.00126
SLCO2A1	NM_005630.1	2.61944	0.00169
SMPDL3B	NM_001009568.1	1.55744	0.00281
SNAPC1	NM_003082.2	1.925735	0.00091
SNCG	NM_003087.1	1.61309	0.00271
SPRR2A	NM_005988.2	2.09689	0.0004
STOM	NM_004099.4	1.708225	0.00167
SUSD3	NM_145006.2	1.812205	0.00102
TAGLN	NM_003186.3	2.243635	0.0006
TASP1	NM_017714.1	1.64468	0.00199
TCEA3	NM_003196.1	2.2269	0.00042
TCF12	NM_207036.1	2.151785	0.00057
TCN1	NM_001062.2	1.85083	0.00101
TGM1	NM_000359.1	2.402245	0.00027
TRIM17	NM_016102.2	1.542155	0.00301
TRPC3	NM_003305.1	1.5889	0.00242
TRPC6	NM_004621.3	1.52381	0.00337
TUFT1	NM_020127.1	1.96702	0.00059
UGT3A2	NM_174914.2	1.964115	0.00063
VAPA	NM_003574.4	1.914205	0.00072
VNN1	NM_004666.1	1.588905	0.00261
VPS33A	NM_022916.3	1.58352	0.00248
XK	NM_021083.2	1.802265	0.00338

List of genes downregulated in macroH2A1-depleted LD611 cells

Symbol	GenBank	Fold	<i>p</i> -value
ANTXR2	NM_058172.3	-2.336345	0.00097
ANXA10	NM_007193.3	-2.12519	0.00462
C1QTNF6	NM_031910.3	-2.113915	0.00097
C3ORF21	NM_152531.3	-1.920105	0.00229
C9ORF140	NM_178448.2	-1.530415	0.00316
CAMK2N1	NM_018584.4	-2.11871	0.0073
CCND2	NM_001759.2	-4.354395	0.0000353
COL4A1	NM_001845.3	-2.170945	0.00199
CTDSPL	NM_005808.2	-1.5352	0.00311
DAZAP2	NM_014764.2	-1.99387	0.00121
ESM1	NM_007036.3	-2.58	0.002
F11R	NM_144504.1	-1.899995	0.00438
FAM129A	NM_022083.1	-1.718525	0.00313
FAM20C	NM_020223.1	-1.839975	0.00112
FOXQ1	NM_033260.2	-2.39688	0.00091
FST	NM_013409.1	-1.71775	0.00166
FSTL1	NM_007085.3	-2.24806	0.00083
H2AFY	NM_004893.2	-9.58871	0.00012
HAS3	NM_005329.2	-1.62288	0.00318
IL1RAP	NM_134470.2	-1.589395	0.00256
KCTD9	NM_017634.2	-1.958915	0.00198
KIAA1199	NM_018689.1	-2.03552	0.00475
LFNG	NM_002304.1	-1.952605	0.00083
LHFP	NM_005780.1	-2.57646	0.00368
LPAR1	NM_001401.3	-2.697505	0.00014
MALL	NM_005434.3	-1.96883	0.00057
MORF4L1	NM_006791.2	-1.946205	0.00086
MYADM	NM_001020820.1	-1.643725	0.00179
NGFR	NM_002507.1	-1.539775	0.00318
PCDH7	NM_002589.2	-1.639275	0.00182
PPIC	NM_000943.4	-2.7832	0.00057
PRIC285	NM_033405.2	-1.68295	0.00182
PTPRK	NM_002844.2	-1.749525	0.00501
RCC2	NM_018715.1	-1.920415	0.00076
SH3GL2	NM_003026.1	-2.730415	0.00013
SH3PXD2A	NM_014631.2	-2.45112	0.02035
SLC16A3	NM_004207.2	-2.33979	0.01835
SLC20A2	NM_006749.3	-1.82496	0.00615
SPARC	NM_003118.2	-2.42152	0.00028
TMEM200A	NM_052913.2	-2.660685	0.01905
TSPAN4	NM_001025238.1	-2.166585	0.00215