

SUPPLEMENTARY TABLES

Table S1: RNA sequencing of CM-272-treated MO4 cells *in vitro* - normalized gene expression counts and log₂-fold changes (**page 1-58**); **Table S2:** RNA sequencing of CM-272-treated MO4 cells *in vitro* - significantly changed gene sets (**page 59-68**); **Table S3:** Multiplex gene expression analysis on *ex vivo* tumor tissue - significantly changed gene sets (**page 69**); **Table S4:** Report on statistical significance pertaining to Figure 5C (**page 70**).

Table S1 – RNA sequencing of CM-272-treated MO4 cells *in vitro* - normalized gene expression counts and log₂-fold changes. ¹

Gene symbol	Log ₂ -fold change ²	q-value	p-value
Ccnb1-ps	-4,1347375	0,0000000	0,0000000
Ska1	-4,0254682	0,0000000	0,0000000
H2ac12	-3,9147032	0,0000000	0,0000000
Gm12856	-3,7981566	0,0000000	0,0000000
Pimreg	-3,6647352	0,0000000	0,0000000
Depdc1a	-3,6566913	0,0000000	0,0000000
Ccna2	-3,6081603	0,0000000	0,0000000
Cenpf	-3,5921527	0,0000000	0,0000000
Hmmr	-3,540225	0,0000000	0,0000000
Cenpe	-3,5394196	0,0000000	0,0000000
Plk1	-3,499661	0,0000000	0,0000000
Ccnb1	-3,4988183	0,0000000	0,0000000
Cdkn3	-3,4883359	0,0000000	0,0000000
Mki67	-3,4763774	0,0000000	0,0000000
Spag5	-3,4486162	0,0000000	0,0000000
Pif1	-3,4407567	0,0000000	0,0000000
Aurkb	-3,4194024	0,0000000	0,0000000
Nek2	-3,4183896	0,0000000	0,0000000
Ccnb2	-3,4131431	0,0000000	0,0000000
Cdk1	-3,3936285	0,0000000	0,0000000
Troap	-3,3870243	0,0000000	0,0000000
H2bu1-ps	-3,3667004	0,0000000	0,0000000
H3c8	-3,3658868	0,0000000	0,0000000
Kif20a	-3,3619289	0,0000000	0,0000000
Aspm	-3,3548509	0,0000000	0,0000000
H2ac4	-3,3493837	0,0000000	0,0000000
Bub1	-3,3368604	0,0000000	0,0000000
Ube2c	-3,3337322	0,0000000	0,0000000
Sapcd2	-3,3300053	0,0000000	0,0000000
Pbk	-3,3245753	0,0000000	0,0000000
Nuf2	-3,3144117	0,0000000	0,0000000
Cdc25c	-3,3112061	0,0000000	0,0000000

Ttk	-3,3070152	0,0000000	0,0000000
Cit	-3,3021253	0,0000000	0,0000000
Tacc3	-3,2907224	0,0000000	0,0000000
Kn11	-3,2833459	0,0000000	0,0000000
Cenpa	-3,2776714	0,0000000	0,0000000
Kif11	-3,2767817	0,0000000	0,0000000
Ckap2l	-3,2726165	0,0000000	0,0000000
Birc5	-3,2711752	0,0000000	0,0000000
Kif2c	-3,2577494	0,0000000	0,0000000
H3c3	-3,254268	0,0000000	0,0000000
Prr11	-3,2269347	0,0000000	0,0000000
Kif14	-3,2218341	0,0000000	0,0000000
Dlgap5	-3,2168215	0,0000000	0,0000000
Kif15	-3,2127121	0,0000000	0,0000000
H2bc11	-3,1915446	0,0000000	0,0000000
Cep55	-3,1864117	0,0000000	0,0000000
Sgo1	-3,1823859	0,0000000	0,0000000
Racgap1	-3,1661056	0,0000000	0,0000000
Cdca3	-3,1598981	0,0000000	0,0000000
Ndc80	-3,1504508	0,0000000	0,0000000
H2bc12	-3,1458645	0,0000000	0,0000000
Iqgap3	-3,1257731	0,0000000	0,0000000
Knstrn	-3,1233334	0,0000000	0,0000000
E2f8	-3,1160295	0,0000000	0,0000000
Tpx2	-3,0982327	0,0000000	0,0000000
Cdca8	-3,0946976	0,0000000	0,0000000
Shcbp1	-3,0779693	0,0000000	0,0000000
Cip2a	-3,0700741	0,0000000	0,0000000
Spc24	-3,0692056	0,0000000	0,0000000
Clspn	-3,0681375	0,0000000	0,0000000
Top2a	-3,0672933	0,0000000	0,0000000
Mybl2	-3,0387531	0,0000000	0,0000000
Phf19	-3,0371398	0,0000000	0,0000000
Espl1	-3,0347456	0,0000000	0,0000000
Hmgb2	-3,0207861	0,0000000	0,0000000
Cdca2	-3,0167948	0,0000000	0,0000000
Kif4	-3,0149558	0,0000000	0,0000000
Arhgef39	-3,0135798	0,0000000	0,0000000
Kif18b	-2,9927619	0,0000000	0,0000000
Gm13237	-2,9833873	0,0000000	0,0000000
Bub1b	-2,982978	0,0000000	0,0000000
Kif23	-2,9739727	0,0000000	0,0000000

Neil3	-2,9665909	0,0000000	0,0000000
H2ac8	-2,9551475	0,0000000	0,0000000
Cdca5	-2,9471841	0,0000000	0,0000000
H2ac10	-2,9435189	0,0000000	0,0000000
Arhgap19	-2,9418074	0,0000000	0,0000000
Kif20b	-2,9403812	0,0000000	0,0000000
Sgo2a	-2,9359783	0,0000000	0,0000000
H2bc3	-2,9356635	0,0000000	0,0000000
Gmn	-2,9306823	0,0000000	0,0000000
Polq	-2,9302649	0,0000000	0,0000000
Melk	-2,9160451	0,0000000	0,0000000
Chaf1b	-2,9131269	0,0000000	0,0000000
Cdc20	-2,9104946	0,0000000	0,0000000
Dna2	-2,9067503	0,0000000	0,0000000
H3c1	-2,9036269	0,0000000	0,0000000
Kif22	-2,8979858	0,0000000	0,0000000
Fbxo5	-2,8979286	0,0000000	0,0000000
Ncapd2	-2,8955089	0,0000000	0,0000000
Mcm5	-2,8934462	0,0000000	0,0000000
Aurka	-2,8899949	0,0000000	0,0000000
Mns1	-2,8767008	0,0000000	0,0000000
Hrob	-2,8636668	0,0000000	0,0000000
Uhrf1	-2,862257	0,0000000	0,0000000
Ncapg	-2,8537155	0,0000000	0,0000000
H2ax	-2,8493259	0,0000000	0,0000000
Cenpi	-2,8439729	0,0000000	0,0000000
Tk1	-2,8423123	0,0000000	0,0000000
Prcl	-2,8381259	0,0000000	0,0000000
Parpbp	-2,8353337	0,0000000	0,0000000
H4f16	-2,8326882	0,0000000	0,0000000
Nup210	-2,8228022	0,0000000	0,0000000
H2ac11	-2,8145992	0,0000000	0,0000000
Ticrr	-2,8018397	0,0000000	0,0000000
Gm15428	-2,7952902	0,0000000	0,0000000
Ccnf	-2,7890627	0,0000000	0,0000000
Gm6091	-2,7858897	0,0000000	0,0000000
Kntc1	-2,7825599	0,0000000	0,0000000
Gm5853	-2,775122	0,0000000	0,0000000
Gm5648	-2,7714933	0,0000000	0,0000000
Ercc6l	-2,7678747	0,0000000	0,0000000
Pclaf	-2,7641846	0,0000000	0,0000000
Mtfr2	-2,7429425	0,0000000	0,0000000

Lig1	-2,7212199	0,0000000	0,0000000
H2bc6	-2,7197708	0,0000000	0,0000000
Nsl1	-2,7190627	0,0000000	0,0000000
Gm13160	-2,7169813	0,0000001	0,0000001
Incenp	-2,7152748	0,0000000	0,0000000
Atad2	-2,7029774	0,0000000	0,0000000
Mis18bp1	-2,6921126	0,0000000	0,0000000
Dscc1	-2,6868389	0,0000000	0,0000000
H4c14	-2,6784439	0,0000000	0,0000000
Rmi2	-2,6567392	0,0000000	0,0000000
Ect2	-2,6506809	0,0000000	0,0000000
H4c6	-2,6493017	0,0000000	0,0000000
Mcm10	-2,6420664	0,0000000	0,0000000
Mxd3	-2,6408284	0,0000000	0,0000000
H3c7	-2,6407454	0,0000000	0,0000000
Kif18a	-2,6385523	0,0000000	0,0000000
Aunip	-2,6368671	0,0000000	0,0000000
H2bc8	-2,6234364	0,0000000	0,0000000
Fanci	-2,6212722	0,0000000	0,0000000
Fanced2	-2,6196934	0,0000000	0,0000000
Mcm2	-2,6129593	0,0000000	0,0000000
Ncapg2	-2,6069562	0,0000000	0,0000000
Mcm3	-2,6038143	0,0000000	0,0000000
Gen1	-2,599698	0,0000000	0,0000000
E2f2	-2,5959678	0,0000000	0,0000000
Exo1	-2,5510484	0,0000000	0,0000000
Bard1	-2,5468316	0,0000000	0,0000000
Rad51ap1	-2,5468007	0,0000000	0,0000000
H1f3	-2,5407484	0,0000000	0,0000000
H4c1	-2,5403381	0,0000000	0,0000000
Traip	-2,5235152	0,0000000	0,0000000
Cdc6	-2,4924737	0,0000000	0,0000000
H3c6	-2,4915301	0,0000000	0,0000000
Mad2l1	-2,4893762	0,0000000	0,0000000
Cdc45	-2,4862271	0,0000000	0,0000000
Gins1	-2,4764353	0,0000000	0,0000000
N4bp3	-2,4695288	0,0000000	0,0000000
H2bc4	-2,4633956	0,0000000	0,0000000
Ccdc34	-2,4619313	0,0000000	0,0000000
Wdr62	-2,4443986	0,0000000	0,0000000
Pmf1	-2,4339944	0,0000000	0,0000000
Cdc25b	-2,4276333	0,0000000	0,0000000

Pold1	-2,4176296	0,0000000	0,0000000
Cdt1	-2,4171866	0,0000000	0,0000000
Depdc1b	-2,4153508	0,0000003	0,0000004
Rrm2	-2,4150193	0,0000000	0,0000000
Rad51	-2,4085386	0,0000000	0,0000000
Eme1	-2,406928	0,0000000	0,0000000
Esco2	-2,4043727	0,0000000	0,0000000
Gjb2	-2,4042934	0,0000000	0,0000000
Lmnb1	-2,3996858	0,0000000	0,0000000
H4c2	-2,3988428	0,0000000	0,0000000
Pkmyt1	-2,3984809	0,0000000	0,0000000
Foxm1	-2,3867811	0,0000000	0,0000000
Trip13	-2,3865299	0,0000000	0,0000000
Cenpu	-2,3849786	0,0000000	0,0000000
Nusap1	-2,3830458	0,0000000	0,0000000
Cntfr	-2,3751741	0,0000000	0,0000000
Rbl1	-2,3745396	0,0000000	0,0000000
Cenpw	-2,3696453	0,0000000	0,0000000
Plk4	-2,3612534	0,0000000	0,0000000
Chek1	-2,3583141	0,0000000	0,0000000
Chaf1a	-2,3570417	0,0000000	0,0000000
Fanca	-2,355321	0,0000000	0,0000000
Prim1	-2,3526523	0,0000000	0,0000000
Cenph	-2,3526083	0,0000000	0,0000000
Aire	-2,3467895	0,0000225	0,00000424
H4c8	-2,3399366	0,0000000	0,0000000
H1f6	-2,3288339	0,0000000	0,0000000
Ankle1	-2,3265039	0,0000000	0,0000000
H1f4	-2,3222333	0,0000000	0,0000000
Arhgap11a	-2,3075014	0,0000000	0,0000000
Gpsm2	-2,3058961	0,0000000	0,0000000
Ung	-2,292136	0,0000000	0,0000000
Pole	-2,2862413	0,0000000	0,0000000
Gm12387	-2,2703188	0,0001610	0,00003492
H2ac6	-2,2679386	0,0000000	0,0000000
Mcm7	-2,2568544	0,0000000	0,0000000
Mlf1	-2,2476333	0,0000000	0,0000000
Cenpm	-2,2468687	0,0000000	0,0000000
Fndc3c1	-2,2465597	0,0000000	0,0000000
H2ac20	-2,2434024	0,0000000	0,0000000
Wdhd1	-2,2353798	0,0000000	0,0000000
Dbf4	-2,2308662	0,0000000	0,0000000

Cenps	-2,2131403	0,0000000	0,0000000
Tyms	-2,207161	0,0000000	0,0000000
Hmx2	-2,192737	0,0000000	0,0000000
Mastl	-2,1882585	0,0000000	0,0000000
Cdc25a	-2,1858425	0,0000000	0,0000000
Impa2	-2,1824926	0,0000000	0,0000000
Cenpq	-2,1798743	0,0000000	0,0000000
Ska3	-2,1780578	0,0000000	0,0000000
Atad5	-2,1729647	0,0000000	0,0000000
Lmo1	-2,1706644	0,0000000	0,0000000
2700099C18Rik	-2,1695322	0,0000000	0,0000000
Chtf18	-2,1672737	0,0000000	0,0000000
Hmgb1-ps3	-2,1623297	0,0000149	0,00000273
H4c3	-2,1619331	0,0000000	0,0000000
Iqgap2	-2,1586557	0,0000000	0,0000000
Mcm4	-2,1574914	0,0000000	0,0000000
Vash1	-2,1479079	0,0000000	0,0000000
Efcab11	-2,1427908	0,0000000	0,0000000
H4c4	-2,1388975	0,0000000	0,0000000
Enpp2	-2,1350249	0,0000000	0,0000000
Smc2	-2,1288572	0,0000000	0,0000000
Cep152	-2,1266937	0,0000000	0,0000000
2810429I04Rik	-2,125589	0,0000000	0,0000000
Cep89	-2,1228246	0,0000000	0,0000000
Gm44521	-2,1222818	0,0002261	0,00005034
Lrr1	-2,1194085	0,0000000	0,0000000
Rrm1	-2,1115537	0,0000000	0,0000000
Cdk2	-2,1114148	0,0000000	0,0000000
Ccne2	-2,1062309	0,0000000	0,0000000
Ccsap	-2,0969306	0,0000000	0,0000000
Ccdc85c	-2,0768439	0,0000000	0,0000000
Stil	-2,0721507	0,0000000	0,0000000
Mgam2-ps	-2,0702346	0,0000001	0,00000001
Timeless	-2,0641858	0,0000000	0,0000000
Dut	-2,05539	0,0000000	0,0000000
E2f7	-2,053647	0,0000000	0,0000000
Gm20667	-2,0512635	0,0000002	0,00000002
Orc1	-2,047915	0,0000000	0,0000000
Arhgap33	-2,0453785	0,0005470	0,00013191
Asf1b	-2,0428776	0,0000000	0,0000000
Rad54l	-2,0425766	0,0000000	0,0000000
Spdl1	-2,0403423	0,0000000	0,0000000

4930558J18Rik	-2,0384679	0,0000061	0,00000107
Ube2t	-2,0229467	0,0000000	0,00000000
E2f1	-2,0226574	0,0000000	0,00000000
Dtl	-2,0207382	0,0000000	0,00000000
Kifc1	-2,0196331	0,0000000	0,00000000
Spc25	-2,0165306	0,0000000	0,00000000
Mcm6	-2,0165224	0,0000000	0,00000000
Pitpnm3	-2,0129947	0,0003126	0,00007185
Recql4	-2,0127097	0,0000000	0,00000000
Smtnl2	-2,0123602	0,0000000	0,00000000
Aqp1	-2,0115104	0,0000001	0,00000002
Gm15452	-2,0111721	0,0000000	0,00000000
Lpar5	-2,0084814	0,0000000	0,00000000
Shmt1	-2,0078264	0,0000000	0,00000000
Dnmt1	-1,9916607	0,0000000	0,00000000
Xkr5	-1,9782918	0,0000000	0,00000000
Nckap5l	-1,9743013	0,0000000	0,00000000
Ccne1	-1,9733045	0,0000000	0,00000000
Batf3	-1,9722207	0,0000000	0,00000000
Gm10282	-1,9720448	0,0000000	0,00000000
Haspin	-1,9627518	0,0000000	0,00000000
Megf6	-1,9592576	0,0000000	0,00000000
Ddx11	-1,957994	0,0000000	0,00000000
Mpp6	-1,9560401	0,0000000	0,00000000
Pla2g4c	-1,9492965	0,0007419	0,00018376
Gm12261	-1,9445674	0,0000000	0,00000000
Sgcg	-1,9440108	0,0000000	0,00000000
Rpa2	-1,9412146	0,0000000	0,00000000
Rragd	-1,9312524	0,0000000	0,00000000
Ncaph	-1,9283816	0,0000000	0,00000000
Nasp	-1,9280666	0,0000000	0,00000000
Lrfr1	-1,9237936	0,0000000	0,00000000
Smc4	-1,9230941	0,0000000	0,00000000
Diaph3	-1,9201467	0,0000000	0,00000000
Hmgn2	-1,9186663	0,0000000	0,00000000
Cep128	-1,9124486	0,0000000	0,00000000
Zwilch	-1,9100512	0,0000000	0,00000000
Pole2	-1,9085832	0,0000000	0,00000000
H3c2	-1,9052792	0,0000000	0,00000000
Neurl1b	-1,901566	0,0000227	0,00000429
Cenpk	-1,9005434	0,0000000	0,00000000
Brip1	-1,8992739	0,0000000	0,00000000

2010110K18Rik	-1,8961877	0,0012089	0,00031104
Rad54b	-1,8850622	0,0000000	0,00000000
Gins2	-1,8812065	0,0000000	0,00000000
Wdr76	-1,8758767	0,0000000	0,00000000
Cenpn	-1,8679685	0,0000000	0,00000000
Gm3756	-1,8646015	0,0000000	0,00000000
Gm15387	-1,8614012	0,0000003	0,00000004
Figl1	-1,8612409	0,0000000	0,00000000
Ctdspl	-1,8569196	0,0000000	0,00000000
Bora	-1,8561479	0,0000000	0,00000000
Cks2	-1,8530874	0,0000000	0,00000000
Hlf	-1,8511282	0,0000000	0,00000000
Fam83d	-1,8509055	0,0000024	0,00000040
Glt1d1	-1,8479909	0,0000000	0,00000000
Rapsn	-1,8432006	0,0000000	0,00000000
Pola2	-1,8391981	0,0000000	0,00000000
Gm6750	-1,8370299	0,0002925	0,00006679
Mis18a	-1,8357435	0,0000000	0,00000000
Rfc5	-1,8330447	0,0000000	0,00000000
Fam110a	-1,8327323	0,0000000	0,00000000
Poc1a	-1,8317179	0,0000000	0,00000000
Gm37599	-1,8270008	0,0000409	0,00000805
Gm9430	-1,8103811	0,0003453	0,00007990
Arhgap32	-1,8078322	0,0000000	0,00000000
Hpse	-1,8036443	0,0000000	0,00000000
Dmxl2	-1,7955166	0,0000000	0,00000000
Blm	-1,7946543	0,0000000	0,00000000
Vrk2	-1,7904219	0,0000000	0,00000000
Myo7a	-1,784834	0,0000000	0,00000000
Tcf19	-1,7821047	0,0000000	0,00000000
Map2k6	-1,775362	0,0000000	0,00000000
Tyro3	-1,7752341	0,0000000	0,00000000
Prickle1	-1,774294	0,0000000	0,00000000
2010008C14Rik	-1,7727535	0,0000000	0,00000000
Nmral1	-1,7724385	0,0000000	0,00000000
Klhl23	-1,7692622	0,0000000	0,00000000
Pmel	-1,7659252	0,0000000	0,00000000
Rapgef3os2	-1,76436	0,0000006	0,00000009
Dnmt3b	-1,7641819	0,0000000	0,00000000
Lockd	-1,7572736	0,0000000	0,00000000
Ptprs	-1,7546021	0,0000000	0,00000000
Hmgn2-ps1	-1,7545762	0,0000437	0,00000865

Fancb	-1,7535402	0,0000000	0,0000000
Bace2	-1,75283	0,0000000	0,0000000
Hvcn1	-1,7502179	0,0000000	0,0000000
Tuba1b	-1,7492275	0,0000000	0,0000000
Gm10357	-1,7479874	0,0003568	0,00008290
Gm21596	-1,7451742	0,0000001	0,00000002
Gm11349	-1,7429325	0,0000623	0,00001268
Xylb	-1,7415624	0,0000000	0,0000000
Gm43096	-1,7361797	0,0000000	0,0000000
Cep72	-1,7322786	0,0000000	0,0000000
Selenoh	-1,7315521	0,0000000	0,0000000
Gm37510	-1,7280946	0,0000012	0,00000020
Myb	-1,7262957	0,0007340	0,00018156
Rad51b	-1,7259414	0,0001479	0,00003188
Itpk1	-1,7240997	0,0000000	0,0000000
Tenm4	-1,7220576	0,0000000	0,0000000
Mboat1	-1,7207371	0,0000000	0,0000000
Kifc5b	-1,7194629	0,0000000	0,0000000
Cbx3-ps7	-1,7129792	0,0000000	0,0000000
Enkd1	-1,7116408	0,0000000	0,0000000
Ezh2	-1,7096555	0,0000000	0,0000000
Alms1	-1,7064411	0,0000000	0,0000000
Fndc4	-1,7044673	0,0000000	0,0000000
Haus4	-1,7022229	0,0000000	0,0000000
Echdc2	-1,7006805	0,0000000	0,0000000
Rfc4	-1,6950347	0,0000000	0,0000000
Mnd1	-1,6939715	0,0000044	0,00000076
Gm36401	-1,6882516	0,0002056	0,00004544
Adamts20	-1,6864591	0,0000000	0,0000000
H1f1	-1,6862726	0,0000008	0,00000012
Smo	-1,6862544	0,0000000	0,0000000
Gm43029	-1,6842704	0,0000002	0,00000003
Mnd1-ps	-1,6779191	0,0004737	0,00011281
Nsmce4a	-1,6772262	0,0000000	0,0000000
Hmgb1	-1,6751614	0,0000000	0,0000000
Lbr	-1,6710142	0,0000000	0,0000000
Nt5dc2	-1,6681306	0,0000000	0,0000000
Anln	-1,6664051	0,0000000	0,0000000
Parp1	-1,6661662	0,0000000	0,0000000
Zfp469	-1,6632062	0,0000000	0,0000000
Topbp1	-1,6593869	0,0000000	0,0000000
Gm5620	-1,6570692	0,0000000	0,0000000

Chek2	-1,6566106	0,0000000	0,0000000
Gm16436	-1,6523979	0,0010344	0,00026246
Hirip3	-1,6469574	0,0000000	0,0000000
Tnfaip811	-1,6440393	0,0000008	0,00000013
Tmem51	-1,6389469	0,0000000	0,0000000
Palb2	-1,6389381	0,0000000	0,0000000
Hmgb3	-1,6351362	0,0000000	0,0000000
Bra1	-1,6320397	0,0000000	0,0000000
Dcbld1	-1,6314189	0,0000000	0,0000000
Cdca7	-1,6310517	0,0000000	0,0000000
Galnt12	-1,6293282	0,0000000	0,0000000
5031439G07Rik	-1,6281196	0,0000000	0,0000000
Cdc7	-1,6263398	0,0000000	0,0000000
Tfap4	-1,6152388	0,0000000	0,0000000
Cers1	-1,6149443	0,0000000	0,0000000
Hat1	-1,6144047	0,0000000	0,0000000
Wee1	-1,6127475	0,0000000	0,0000000
Macroh2a1	-1,6091532	0,0000000	0,0000000
Gm6104	-1,6080714	0,0000000	0,0000000
Kif24	-1,608055	0,0000000	0,0000000
Tmcc2	-1,6005149	0,0000000	0,0000000
Trim59	-1,5969864	0,0000000	0,0000000
Pyg1	-1,5937739	0,0000000	0,0000000
Slc16a3	-1,5936605	0,0002853	0,00006508
Dlk2	-1,5919667	0,0011430	0,00029216
Pola1	-1,5913261	0,0000000	0,0000000
Mms22l	-1,5901189	0,0000000	0,0000000
Gm28229	-1,5898851	0,0000000	0,0000000
Hells	-1,589837	0,0000000	0,0000000
Plch1	-1,5886979	0,0000000	0,0000000
Poc1b	-1,5871307	0,0000000	0,0000000
Gm17383	-1,5858665	0,0000000	0,0000000
Gm12870	-1,5840846	0,0005115	0,00012254
Hmcn1	-1,5815843	0,0000000	0,0000000
Usp1	-1,5811451	0,0000000	0,0000000
Cpne4	-1,5784176	0,0000000	0,0000000
Exosc8	-1,5690392	0,0000000	0,0000000
Ckap5	-1,568641	0,0000000	0,0000000
Dsn1	-1,563507	0,0000000	0,0000000
Mdm1	-1,5611608	0,0000000	0,0000000
H2ac21	-1,557662	0,0000300	0,00000579
Tnk2	-1,5540373	0,0000000	0,0000000

Degs2	-1,5536161	0,0009131	0,00022919
Skp2	-1,5533928	0,0000000	0,00000000
Gm11223	-1,5533413	0,0000000	0,00000000
Tipin	-1,5521749	0,0000000	0,00000000
Pcna-ps2	-1,5448787	0,0000000	0,00000000
BC055324	-1,5446362	0,0000000	0,00000000
Cgas	-1,5419054	0,0000000	0,00000000
Hip1r	-1,5415877	0,0000000	0,00000000
Mapk11	-1,5380426	0,0000000	0,00000000
Stmn1	-1,5377802	0,0000000	0,00000000
Tspan10	-1,536284	0,0000000	0,00000000
Pcna	-1,5358703	0,0000000	0,00000000
Ppid	-1,535447	0,0000000	0,00000000
Oip5	-1,5318855	0,0000000	0,00000000
Clmn	-1,5307064	0,0000000	0,00000000
Cbx2	-1,5264321	0,0000000	0,00000000
Mtfp1	-1,5254271	0,0000000	0,00000000
Sass6	-1,5246978	0,0000000	0,00000000
Kpna2	-1,5211598	0,0000000	0,00000000
Vrk1	-1,5202885	0,0000000	0,00000000
Gm10184	-1,5165647	0,0000000	0,00000000
Cenpl	-1,511139	0,0000000	0,00000000
Lmnb2	-1,5076918	0,0000000	0,00000000
Gm7931	-1,5072555	0,0001944	0,00004276
Net1	-1,5046169	0,0000000	0,00000000
Gm13577	-1,5005041	0,0000029	0,00000049
Vegfb	-1,4985282	0,0000000	0,00000000
Mt2	-1,4970963	0,0000018	0,00000029
Hsf4	-1,4959603	0,0000000	0,00000000
Cks1b	-1,4936192	0,0000000	0,00000000
Dek	-1,4903492	0,0000000	0,00000000
Pold2	-1,485098	0,0000000	0,00000000
Mtbp	-1,4840852	0,0000000	0,00000000
Fxn	-1,4813692	0,0000000	0,00000000
Mknk2	-1,4812741	0,0000000	0,00000000
Tamm41	-1,4804289	0,0000000	0,00000000
Egln1	-1,4776218	0,0000000	0,00000000
Paqr6	-1,4735791	0,0000001	0,00000002
Plekhg3	-1,4653316	0,0000000	0,00000000
Abca12	-1,4616558	0,0000000	0,00000000
Rcc1	-1,4611474	0,0000000	0,00000000
Ttf2	-1,4607659	0,0000000	0,00000000

Tubg1	-1,4531276	0,0000000	0,0000000
Cibar1	-1,4528908	0,0000000	0,0000000
Gpr157	-1,4479397	0,0000000	0,0000000
Nsd2	-1,4455873	0,0000000	0,0000000
Bicc1	-1,4403303	0,0000000	0,0000000
Hjurp	-1,4399345	0,0000000	0,0000000
Tubb5	-1,4395642	0,0000000	0,0000000
Sdf2l1	-1,4395565	0,0000000	0,0000000
Fbxo48	-1,4380346	0,0011562	0,00029591
Ntrk3	-1,4361224	0,0012000	0,00030833
Gm10619	-1,4354177	0,0012914	0,00033375
Rcor2	-1,4348554	0,0000000	0,0000000
Scn1a	-1,4338622	0,0000000	0,0000000
Cenpv	-1,4319954	0,0000000	0,0000000
Ccdc69	-1,4281036	0,0000001	0,00000002
Cep192	-1,427951	0,0000000	0,0000000
Dhfr	-1,4261833	0,0000000	0,0000000
Mreg	-1,4257182	0,0000000	0,0000000
Suv39h1	-1,4244619	0,0000000	0,0000000
Cerox1	-1,4244045	0,0015008	0,00039233
Gm14276	-1,4240307	0,0000001	0,00000001
Gm12919	-1,4207134	0,0004396	0,00010399
Psmc3ip	-1,4159314	0,0000000	0,0000000
Cep135	-1,4134982	0,0000000	0,0000000
Dck	-1,4107803	0,0000000	0,0000000
Rnaseh2b	-1,4064145	0,0000000	0,0000000
Fbln1	-1,4043517	0,0000000	0,0000000
Paxip1	-1,4022158	0,0000000	0,0000000
Ccdc57	-1,4000419	0,0000000	0,0000000
Terf1	-1,3990442	0,0000000	0,0000000
Psen2	-1,3988194	0,0000000	0,0000000
Igsf8	-1,3986751	0,0000000	0,0000000
Pdk1	-1,3979763	0,0000154	0,00000282
Pold3	-1,3976708	0,0000000	0,0000000
Slfn9	-1,3952052	0,0000000	0,0000000
Tmem109	-1,3912244	0,0000000	0,0000000
Rttm	-1,3904136	0,0000000	0,0000000
Afap1l1	-1,3894963	0,0000000	0,0000000
Bckdhb	-1,3832128	0,0000000	0,0000000
Tjp2	-1,3827337	0,0000000	0,0000000
Gm14150	-1,3817134	0,0000000	0,0000000
D630045J12Rik	-1,3798563	0,0000000	0,0000000

Bhlhe40	-1,3757357	0,0000000	0,0000000
Dnph1	-1,37455	0,0000000	0,0000000
Plekhg5	-1,373761	0,0000000	0,0000000
Cntrob	-1,3733027	0,0000000	0,0000000
Cbx3-ps6	-1,37235	0,0000000	0,0000000
Gas2l3	-1,369141	0,0000000	0,0000000
Gm10074	-1,3670756	0,0000000	0,0000000
Slc29a1	-1,3624428	0,0000000	0,0000000
Tmem268	-1,3603658	0,0000000	0,0000000
Cntln	-1,356192	0,0002693	0,00006106
Tube1	-1,3496785	0,0000002	0,00000003
Cars2	-1,3485028	0,0000000	0,0000000
Ncapd3	-1,343735	0,0000000	0,0000000
RbmX	-1,3414642	0,0000000	0,0000000
Metrn	-1,3399493	0,0000020	0,00000032
2810410L24Rik	-1,3399056	0,0000003	0,00000005
Bcl7a	-1,3395675	0,0000000	0,0000000
McpH1	-1,3370937	0,0000000	0,0000000
Haus1	-1,3350358	0,0000000	0,0000000
Gpr143	-1,3345582	0,0000000	0,0000000
Wdr90	-1,3343104	0,0000000	0,0000000
Prkcz	-1,3342679	0,0000000	0,0000000
Brca2	-1,3289344	0,0000000	0,0000000
Aff3	-1,3270444	0,0000000	0,0000000
Cdca7l	-1,3269764	0,0000000	0,0000000
Pkp4	-1,3238606	0,0000000	0,0000000
Fam184b	-1,322853	0,0000000	0,0000000
Arhgef37	-1,3224172	0,0002161	0,00004797
Fen1	-1,3220808	0,0000149	0,00000273
Mt1	-1,3206777	0,0000017	0,00000028
Lin9	-1,3176814	0,0000000	0,0000000
Kdm2b	-1,3173155	0,0000000	0,0000000
Thra	-1,3169475	0,0000000	0,0000000
Eogt	-1,3168114	0,0000000	0,0000000
Gm8146	-1,3148394	0,0003076	0,00007059
Tal1	-1,3139247	0,0000060	0,00000106
Tnfsf9	-1,312176	0,0000000	0,0000000
4930579G24Rik	-1,3093117	0,0000000	0,0000000
Msh6	-1,3063047	0,0000000	0,0000000
Ifrd2	-1,302833	0,0000000	0,0000000
Pwwp3a	-1,2972639	0,0000000	0,0000000
Kmt5a	-1,2972367	0,0000000	0,0000000

Gm11585	-1,2956657	0,0000000	0,0000000
Pde9a	-1,2953117	0,0000001	0,00000002
Gm42549	-1,2950817	0,0018740	0,00049997
Parvb	-1,2907131	0,0000000	0,00000000
Uchl5	-1,2906329	0,0000000	0,00000000
Hunk	-1,2855301	0,0000000	0,00000000
Thrap3	-1,2846699	0,0000000	0,00000000
Odf2	-1,2834141	0,0000000	0,00000000
Tedc1	-1,2833681	0,0000000	0,00000000
Ybx3	-1,2810631	0,0000000	0,00000000
Alg13	-1,2798782	0,0000000	0,00000000
Gm5841	-1,2797041	0,0000017	0,00000027
Cyp39a1	-1,2792588	0,0000000	0,00000000
A930004J17Rik	-1,2789907	0,0001261	0,00002692
Paqr4	-1,2786124	0,0000000	0,00000000
Anp32b	-1,2748199	0,0000000	0,00000000
Vars	-1,2744722	0,0000000	0,00000000
Eps8	-1,2732668	0,0000000	0,00000000
Slf1	-1,2715996	0,0000000	0,00000000
Prdm16	-1,2658516	0,0000000	0,00000000
Dnajc3	-1,2639504	0,0000000	0,00000000
Tcof1	-1,2604584	0,0000000	0,00000000
Cenpp	-1,2570019	0,0000000	0,00000000
Ccdc88c	-1,2560564	0,0000000	0,00000000
Rad21	-1,2556611	0,0000000	0,00000000
Ube2s	-1,2549193	0,0000000	0,00000000
Foxd2os	-1,2542571	0,0000009	0,00000014
Mroh2a	-1,2534542	0,0000002	0,00000004
Zbed3	-1,2520683	0,0000000	0,00000000
Gm4617	-1,2473962	0,0000000	0,00000000
Dctpp1	-1,2449474	0,0000000	0,00000000
Nup85	-1,244719	0,0000000	0,00000000
Ccdc138	-1,2446733	0,0001174	0,00002492
Rab11fip4	-1,243218	0,0000000	0,00000000
Card14	-1,2430993	0,0000000	0,00000000
Ska2	-1,2372181	0,0000000	0,00000000
Nrm	-1,2327228	0,0000002	0,00000002
Srrt	-1,2296633	0,0000000	0,00000000
Pfkl	-1,2293757	0,0000000	0,00000000
2010204K13Rik	-1,229308	0,0000000	0,00000000
Gm5898	-1,2292594	0,0000000	0,00000000
Gm9800	-1,2284225	0,0000000	0,00000000

Rangap1	-1,2256575	0,0000000	0,0000000
Ankrd44	-1,2248737	0,0000000	0,0000000
6720489N17Rik	-1,2242665	0,0000492	0,00000983
Rasd2	-1,2238508	0,0001161	0,00002461
Insc	-1,223542	0,0000000	0,0000000
Axin2	-1,2215192	0,0000006	0,00000009
Tfdp1	-1,220881	0,0000000	0,0000000
Evc	-1,2177802	0,0000000	0,0000000
Polr3g	-1,2175973	0,0000000	0,0000000
Gm5903	-1,2175243	0,0000000	0,0000000
Galk1	-1,2165457	0,0000000	0,0000000
Suv39h2	-1,2161961	0,0000000	0,0000000
Paics	-1,2158727	0,0000000	0,0000000
D130058E05Rik	-1,2151701	0,0000000	0,0000000
AU020206	-1,2137479	0,0000000	0,0000000
Gm16216	-1,2130903	0,0017127	0,00045300
Zfp651	-1,2055753	0,0000000	0,0000000
Epop	-1,2054813	0,0000000	0,0000000
Pcnt	-1,2049721	0,0000000	0,0000000
Lpcat1	-1,2045146	0,0000000	0,0000000
4930526A20Rik	-1,2025551	0,0000071	0,00000126
Idh2	-1,201506	0,0000000	0,0000000
C77080	-1,2014944	0,0005002	0,00011961
H3c15	-1,2005739	0,0000155	0,00000285
Ssbp4	-1,200562	0,0000000	0,0000000
Exosc2	-1,196803	0,0000000	0,0000000
Gm4430	-1,1947201	0,0002126	0,00004711
Miip	-1,1942858	0,0000000	0,0000000
Scrib	-1,1925872	0,0000000	0,0000000
Bri3bp	-1,1902453	0,0000000	0,0000000
Bri3	-1,1899258	0,0000000	0,0000000
Hk2	-1,1881508	0,0000000	0,0000000
Ccdc18	-1,1873121	0,0002536	0,00005712
H1f2	-1,1857038	0,0000000	0,0000000
Dhrs2	-1,1850438	0,0000000	0,0000000
Hyls1	-1,1848636	0,0000000	0,0000000
Bsn	-1,1837534	0,0000000	0,0000000
Aif1l	-1,1780457	0,0000000	0,0000000
Zfp382	-1,1770634	0,0000001	0,00000001
Etaa1	-1,1757215	0,0000000	0,0000000
Itga9	-1,175323	0,0000000	0,0000000
Car14	-1,1736306	0,0000000	0,0000000

Tmem50b	-1,1722466	0,0000000	0,0000000
Dstyk	-1,1717213	0,0000000	0,0000000
Tpgs2	-1,168591	0,0000000	0,0000000
Gm26448	-1,1682897	0,0000000	0,0000000
Haus5	-1,1662879	0,0002577	0,00005811
G2e3	-1,16546	0,0000000	0,0000000
Tsen34	-1,1650226	0,0000000	0,0000000
Aph1c	-1,1636941	0,0000000	0,0000000
Rfc2	-1,1634602	0,0000000	0,0000000
Rfwd3	-1,1624836	0,0000000	0,0000000
Gm8652	-1,1621373	0,0007334	0,00018136
Dhrs13	-1,1618901	0,0000000	0,0000000
Hs3st1	-1,1601112	0,0007028	0,00017292
Dct	-1,1580833	0,0000000	0,0000000
Nin	-1,1574237	0,0000000	0,0000000
Tcf3	-1,1571831	0,0000000	0,0000000
Siah1b	-1,1555065	0,0000010	0,00000016
Csrnp2	-1,1546465	0,0000000	0,0000000
Cmtm5	-1,1544423	0,0007196	0,00017771
Rnf26	-1,1520139	0,0000000	0,0000000
Ryr3	-1,1513524	0,0000028	0,00000047
Klf15	-1,1512752	0,0000000	0,0000000
Gm11246	-1,1500511	0,0000102	0,00000183
Gnptab	-1,1491453	0,0000000	0,0000000
Mipol1	-1,1477726	0,0000000	0,0000000
Kit	-1,1473852	0,0000000	0,0000000
Kif26a	-1,1465698	0,0001646	0,00003581
Zw10	-1,1459843	0,0000000	0,0000000
Lsm5	-1,1457486	0,0000000	0,0000000
Fam111a	-1,1444437	0,0000000	0,0000000
Grk6	-1,1441873	0,0000000	0,0000000
Fkbp11	-1,1427024	0,0000000	0,00000001
Med12l	-1,1395644	0,0000000	0,0000000
Evl	-1,1392006	0,0000000	0,0000000
Ano3	-1,1348132	0,0000000	0,0000000
Hsp90b1	-1,1318835	0,0000000	0,0000000
Ephb4	-1,1302456	0,0000000	0,0000000
Ppp1r16b	-1,1300929	0,0000000	0,0000000
Cfap20	-1,1291675	0,0000000	0,0000000
Hpgds	-1,1291641	0,0000000	0,0000000
Dixdc1	-1,1240565	0,0000000	0,0000000
Pou6f1	-1,1240087	0,0000000	0,0000000

Zmiz2	-1,121528	0,0000000	0,00000000
Cpsf6	-1,1201555	0,0000000	0,00000000
Adi1	-1,1192466	0,0000000	0,00000000
Rfc3	-1,1192048	0,0000000	0,00000000
Gm9256	-1,118874	0,0001437	0,00003093
Mbd4	-1,1187781	0,0000000	0,00000000
Epb4114b	-1,1175525	0,0000019	0,00000031
Ptma	-1,1173661	0,0000000	0,00000000
Sms-ps	-1,116643	0,0000000	0,00000000
Lpgat1	-1,1157473	0,0000000	0,00000000
Mlt6	-1,1156103	0,0000000	0,00000000
Tbc1d31	-1,1151057	0,0000000	0,00000000
Rbm14	-1,1149604	0,0000000	0,00000000
Xndc1	-1,1140353	0,0000688	0,00001411
Prim2	-1,1121768	0,0000000	0,00000000
L3hypdh	-1,1097059	0,0000000	0,00000000
Uaca	-1,1094839	0,0000000	0,00000000
Alyref	-1,1094653	0,0000000	0,00000000
Preli2	-1,1088639	0,0000026	0,00000043
Cdc42ep5	-1,1073064	0,0000000	0,00000000
Dennd11	-1,1056225	0,0000000	0,00000001
Cdkn2d	-1,1044749	0,0000000	0,00000000
Cep295	-1,1040759	0,0000000	0,00000000
Chd11	-1,1021139	0,0000000	0,00000000
Ragef1	-1,1006912	0,0000000	0,00000000
Gm4204	-1,1004745	0,0000000	0,00000000
Rtel1	-1,1002668	0,0000000	0,00000000
Mphosph9	-1,0997624	0,0000000	0,00000000
Rab27a	-1,0995786	0,0000000	0,00000000
Pdia4	-1,0991713	0,0000000	0,00000000
Mcmbp	-1,0987098	0,0000000	0,00000000
Celsr2	-1,0985377	0,0000000	0,00000000
Srm	-1,0983752	0,0000000	0,00000000
Scml2	-1,0983454	0,0011238	0,00028687
St6galnac3	-1,0974567	0,0000000	0,00000000
Reep4	-1,0969022	0,0000000	0,00000000
Cbx3	-1,095573	0,0000000	0,00000000
C330018A13Rik	-1,0937059	0,0000573	0,00001159
Sc1t1	-1,0936687	0,0000001	0,00000001
Crocc	-1,0927178	0,0000000	0,00000000
Mdc1	-1,0921785	0,0000000	0,00000000
Zfp395	-1,0919161	0,0000001	0,00000001

Mbnl3	-1,0916495	0,0000000	0,0000000
Ak3l2-ps	-1,0912183	0,0001080	0,00002280
Gxylt1	-1,088497	0,0000000	0,0000000
Ppp5c	-1,0877707	0,0000000	0,0000000
Msh2	-1,0873271	0,0000000	0,0000000
Myo5a	-1,0872796	0,0000000	0,0000000
Telo2	-1,0872066	0,0000000	0,0000000
Adamts10	-1,0857418	0,0000000	0,0000000
L3mbtl2	-1,0845031	0,0000000	0,0000000
Lrrc4b	-1,0839927	0,0000000	0,0000000
Dpy30	-1,0836161	0,0000000	0,0000000
Mcm8	-1,0808227	0,0000000	0,0000000
Nup107	-1,0806382	0,0000000	0,0000000
Hmces	-1,0804799	0,0000000	0,0000000
Zc3hav1l	-1,0799935	0,0000000	0,0000000
Nup205	-1,0782937	0,0000000	0,0000000
Plxnd1	-1,077397	0,0000000	0,0000000
Prex2	-1,0771887	0,0000000	0,0000000
Slc45a2	-1,0756319	0,0000000	0,0000000
Nup37	-1,0754255	0,0000000	0,0000000
Rgma	-1,0752775	0,0000000	0,0000000
Arhgap10	-1,0747068	0,0000000	0,0000000
Sirpa	-1,074646	0,0000000	0,0000000
Dcps	-1,0722326	0,0000000	0,0000000
Arrb2	-1,0721591	0,0000000	0,0000000
Cyba	-1,0721098	0,0000000	0,0000000
Gm5643	-1,071088	0,0018403	0,00049018
Cln6	-1,0707426	0,0000000	0,0000000
Pdia6	-1,0702522	0,0000000	0,0000000
Gm10052	-1,0691454	0,0000000	0,0000000
Tpcn1	-1,0685825	0,0000000	0,0000000
Prps1	-1,068535	0,0000000	0,0000000
Rnaseh2a	-1,0684469	0,0000000	0,0000000
Gtf2h1	-1,06312	0,0000000	0,0000000
Srsf4	-1,0623892	0,0000000	0,0000000
Zcchc8	-1,0584608	0,0000000	0,0000000
Cfap298	-1,0582918	0,0000000	0,0000000
Nup210l	-1,0572988	0,0017713	0,00046985
Pnn	-1,0572476	0,0000000	0,0000000
Palm	-1,0571799	0,0000000	0,0000000
1700019D03Rik	-1,0571096	0,0014655	0,00038268
Baz1b	-1,0568089	0,0000000	0,0000000

Gm6682	-1,0546043	0,0000041	0,00000069
Gins3	-1,0544405	0,0000000	0,00000000
Col9a1	-1,0542262	0,0000709	0,00001456
Gm6166	-1,053476	0,0000000	0,00000000
Atm	-1,0523103	0,0000000	0,00000000
Fgd1	-1,0500457	0,0000000	0,00000000
Sh3bp1	-1,0499706	0,0000000	0,00000000
Spes3	-1,0493956	0,0000000	0,00000000
Zkscan17	-1,0486253	0,0000000	0,00000000
Fzr1	-1,0485424	0,0000000	0,00000000
Fbxo31	-1,0484582	0,0000000	0,00000000
G0s2	-1,0478461	0,0000671	0,00001373
Cmc2	-1,0451193	0,0000000	0,00000000
Tuba1c	-1,0450986	0,0000000	0,00000000
Stau2	-1,0446402	0,0000000	0,00000000
3110082I17Rik	-1,0445583	0,0000000	0,00000000
Nolc1	-1,0444056	0,0000000	0,00000000
Ttbk1	-1,0436792	0,0000000	0,00000000
Cfap410	-1,0424364	0,0000000	0,00000000
Snrpa1	-1,041913	0,0000000	0,00000000
Ckap2	-1,0410329	0,0000000	0,00000000
Gm11353	-1,0402162	0,0004100	0,00009642
Hnrnpab	-1,0399136	0,0000000	0,00000000
Zik1	-1,0394104	0,0000000	0,00000000
Gnb1l	-1,0391121	0,0000066	0,00000115
Nfkbib	-1,0389637	0,0000000	0,00000000
Pgam1-ps2	-1,0367433	0,0000000	0,00000000
Mrpl12	-1,0367387	0,0000000	0,00000000
Slc7a5	-1,0365982	0,0000000	0,00000000
Donson	-1,036301	0,0000000	0,00000000
Gm7846	-1,033654	0,0000006	0,00000009
Nova1	-1,033082	0,0000036	0,00000061
Elapor2	-1,0319341	0,0000013	0,00000020
Zmynd19	-1,030808	0,0000000	0,00000000
Get4	-1,029791	0,0000000	0,00000000
Sec61a2	-1,0296645	0,0000000	0,00000000
Nfya	-1,0295983	0,0000000	0,00000000
Fam53b	-1,029552	0,0000000	0,00000000
Ncaph2	-1,0295335	0,0000000	0,00000000
Ddx39a	-1,0279413	0,0000000	0,00000000
1700066M21Rik	-1,0269416	0,0000001	0,00000002
Nt5c2	-1,0239182	0,0000000	0,00000000

Arfgef3	-1,0236564	0,0000000	0,0000000
Cort	-1,0235975	0,0008348	0,00020841
2700038G22Rik	-1,0231082	0,0000192	0,00000359
Lsm2	-1,0226708	0,0000000	0,00000000
Epb41	-1,0223414	0,0000000	0,00000000
Pgap1	-1,0207285	0,0000000	0,00000000
Mif-ps4	-1,0205697	0,0000000	0,00000000
Nap1l1	-1,0190144	0,0000000	0,00000000
Stk39	-1,0179488	0,0000000	0,00000000
Dnaaf2	-1,0166116	0,0000000	0,00000000
Epm2a	-1,0161448	0,0015183	0,00039757
Fut10	-1,0158727	0,0000000	0,00000000
Lrrc8b	-1,0143428	0,0000000	0,00000000
4930503L19Rik	-1,014311	0,0000000	0,00000000
Sgsm2	-1,0137992	0,0000000	0,00000000
Slc9a5	-1,0134848	0,0005455	0,00013151
Casp8ap2	-1,0131164	0,0000000	0,00000000
Lmx1b	-1,0121199	0,0000000	0,00000000
Rpa1	-1,0119965	0,0000000	0,00000000
Orc6	-1,0116128	0,0000000	0,00000000
Prag1	-1,0104798	0,0000000	0,00000000
Plekha8	-1,0094914	0,0000000	0,00000000
Smc5	-1,0086911	0,0000000	0,00000000
Sae1	-1,0058299	0,0000000	0,00000000
Sfpq	-1,0030329	0,0000000	0,00000000
Myo1h	-1,0029867	0,0005711	0,00013816
Myc	-1,0012896	0,0000000	0,00000000
Srsf7	-1,0010466	0,0000000	0,00000000
Tex30	-1,0008965	0,0000000	0,00000000
Dusp8	1,00043071	0,0000000	0,00000001
Zdhhc1	1,00063261	0,0004801	0,00011450
Micall2	1,00124565	0,0000001	0,00000002
Tmco6	1,00168131	0,0003875	0,00009078
Myl12a	1,00294026	0,0000000	0,00000000
Zwint	1,00372494	0,0000000	0,00000000
Slc35d2	1,00555842	0,0000755	0,00001559
Jrkl	1,00725244	0,0000108	0,00000195
Glt8d1	1,00812199	0,0000000	0,00000000
Maff	1,00871755	0,0000002	0,00000003
Tefm	1,00942985	0,0000000	0,00000000
Psme1	1,01066735	0,0000000	0,00000000
Gm7809	1,01246776	0,0000000	0,00000000

Car8	1,01629641	0,0013296	0,00034446
B230354K17Rik	1,01634553	0,0000000	0,00000000
Enpp1	1,0166091	0,0008810	0,00022062
E130311K13Rik	1,01717476	0,0000154	0,00000282
Coq8a	1,01792993	0,0000000	0,00000000
Hmgs1	1,0187606	0,0000000	0,00000000
Snpc5	1,01896769	0,0000000	0,00000000
Snhg15	1,01980249	0,0000000	0,00000000
Eola1	1,02174124	0,0000006	0,00000009
Zfp945	1,0219967	0,0000000	0,00000000
Rcan1	1,02249313	0,0000000	0,00000000
Lrp1	1,02448807	0,0000000	0,00000000
Arhgap28	1,02473254	0,0000000	0,00000000
Nagk	1,02570307	0,0000000	0,00000000
Ccnd2	1,02579263	0,0000000	0,00000000
Tspo	1,02605972	0,0000000	0,00000000
Abca7	1,02668339	0,0000000	0,00000000
2310039H08Rik	1,02777739	0,0000000	0,00000000
Gale	1,02797158	0,0000000	0,00000000
Crabp2	1,02875202	0,0002121	0,00004697
Qsox1	1,02897424	0,0000000	0,00000000
Ctxn1	1,0291022	0,0000000	0,00000000
Speg	1,0296234	0,0000000	0,00000000
Stat3	1,03123086	0,0000000	0,00000000
3000002C10Rik	1,0319459	0,0004025	0,00009452
Klf6	1,03241875	0,0000000	0,00000000
Pdp1	1,03420544	0,0000062	0,00000108
Oaz2	1,03433967	0,0000000	0,00000000
Lipa	1,03494437	0,0000000	0,00000000
Ston1	1,03706152	0,0000000	0,00000000
Runx1	1,03720356	0,0000000	0,00000000
Rmdn2	1,03805536	0,0000002	0,00000003
Klrg2	1,03974083	0,0002670	0,00006047
Zswim6	1,04005295	0,0000000	0,00000000
Zbtb38	1,04033607	0,0000000	0,00000000
Psbm10	1,04085487	0,0000000	0,00000000
Kctd21	1,04119582	0,0015294	0,00040068
Col20a1	1,04160583	0,0000191	0,00000356
Decr2	1,04162029	0,0000000	0,00000000
Tapbpl	1,04236044	0,0000051	0,00000088
Tgfb2	1,04271052	0,0000000	0,00000000
Tpm1	1,04329331	0,0000000	0,00000000

Ccdc73	1,04330855	0,0004311	0,00010171
Zfp119b	1,0447741	0,0001152	0,00002440
F8a	1,04514077	0,0000008	0,00000013
Cfap157	1,0451841	0,0011030	0,00028110
Hint2	1,05067008	0,0000001	0,00000001
Efcab2	1,0533849	0,0000007	0,00000011
Itpripl2	1,0534968	0,0000000	0,00000000
Dcaf8l	1,05416709	0,0000000	0,00000000
Btg1	1,05429467	0,0000000	0,00000000
Hpcal1	1,05704661	0,0000000	0,00000000
Serpib6a	1,05714632	0,0000000	0,00000000
Rhod	1,05794384	0,0000000	0,00000000
Gm6222	1,05886322	0,0000664	0,00001356
Slc35f5	1,06012651	0,0000000	0,00000000
Tpm4	1,06332669	0,0000000	0,00000000
Lnpep	1,06457401	0,0000000	0,00000000
Smim1011	1,06525809	0,0000000	0,00000000
Myd88	1,0661068	0,0000000	0,00000000
Ppp1r18	1,06632563	0,0000000	0,00000000
Pla2r1	1,06636274	0,0000000	0,00000000
Lasp1	1,06738818	0,0000000	0,00000000
Zfp703	1,07032193	0,0000000	0,00000000
Dtna	1,07043464	0,0000000	0,00000000
Lhfpl2	1,071938	0,0000000	0,00000000
Cd9	1,07207248	0,0000000	0,00000000
Htatip2	1,07209617	0,0000000	0,00000000
Ddit4	1,07216476	0,0000000	0,00000000
Plpp6	1,0738764	0,0000000	0,00000000
Zfp874b	1,07698263	0,0000003	0,00000004
Calhm5	1,07733699	0,0000015	0,00000024
Creb3l1	1,07768461	0,0003229	0,00007446
Acox3	1,07796575	0,0000000	0,00000000
Zbtb4	1,08080663	0,0000000	0,00000000
Acot2	1,08184632	0,0000000	0,00000000
Chpf2	1,08212951	0,0000000	0,00000000
Cryab	1,08219054	0,0000000	0,00000000
Gent1	1,08290865	0,0000000	0,00000000
Pgghg	1,08340564	0,0000000	0,00000000
Sfxn5	1,08371551	0,0000000	0,00000000
Gpr146	1,08457316	0,0000000	0,00000000
Snhg8	1,0868262	0,0000000	0,00000000
S100a1	1,08704322	0,0000000	0,00000000

Ctsb	1,08753713	0,0000000	0,00000000
Gstm5	1,08777863	0,0000000	0,00000000
Rps6ka3	1,08779084	0,0000000	0,00000000
Neil1	1,08821057	0,0000155	0,00000286
Nsdhl	1,08858752	0,0000000	0,00000000
Lpin1	1,08890168	0,0001611	0,00003497
Tpp1	1,08912418	0,0000000	0,00000000
Pigm	1,09114101	0,0000000	0,00000000
Gm10080	1,09170499	0,0000000	0,00000000
Lztfl1	1,09178077	0,0000000	0,00000001
Psrc1	1,09179473	0,0000000	0,00000000
Glb1l	1,0938465	0,0013727	0,00035648
Slc25a24	1,09573279	0,0000000	0,00000000
Snord104	1,09614843	0,0000000	0,00000000
Bcas3	1,09672051	0,0000000	0,00000000
1700086O06Rik	1,09772587	0,0000541	0,00001090
Gstt3	1,09833824	0,0000442	0,00000876
Lats2	1,10023316	0,0000000	0,00000000
Gpr153	1,10081164	0,0000224	0,00000421
Skil	1,10085851	0,0000000	0,00000000
Cpeb2	1,10245893	0,0000000	0,00000000
Orai2	1,10306516	0,0000000	0,00000000
Cd151	1,10503091	0,0000000	0,00000000
Rtn4	1,10509493	0,0000000	0,00000000
Rtn2	1,10735865	0,0000023	0,00000037
Gpcpd1	1,10853683	0,0000000	0,00000000
Rock2	1,1091507	0,0000000	0,00000000
C430049B03Rik	1,11026451	0,0007398	0,00018310
Dnajib2	1,11078071	0,0000000	0,00000000
Btbd19	1,11270185	0,0000000	0,00000000
Plxna3	1,11333169	0,0000488	0,00000975
Crip1	1,11522434	0,0012066	0,00031026
Hint3	1,11538636	0,0000248	0,00000471
Prorsd1	1,11614128	0,0000000	0,00000000
Ttc30b	1,11702588	0,0000360	0,00000703
Wdr5b	1,11743441	0,0000515	0,00001034
Pmp22	1,11768365	0,0000000	0,00000000
Pycr1	1,11906522	0,0000025	0,00000042
Cd81	1,11932684	0,0000000	0,00000000
Boc	1,121744	0,0000000	0,00000000
Jadel	1,12180441	0,0000000	0,00000000
Baspl	1,12189754	0,0000000	0,00000000

Plec	1,12229126	0,0000584	0,00001184
Tmem43	1,12257478	0,0000000	0,00000000
Bphl	1,12262711	0,0000000	0,00000000
Gm38317	1,12274537	0,0004195	0,00009879
Pck2	1,1233986	0,0000000	0,00000000
4930429F24Rik	1,12381597	0,0000103	0,00000185
Gnb4	1,12535207	0,0000000	0,00000000
Arsg	1,12582422	0,0000009	0,00000014
Rabac1	1,12633379	0,0000000	0,00000000
Mdm2	1,12772612	0,0000000	0,00000000
Ccndbp1	1,12800638	0,0000000	0,00000000
Lrrc24	1,12887975	0,0000000	0,00000000
1600014C10Rik	1,12998588	0,0000000	0,00000000
Gm19426	1,13011243	0,0000513	0,00001029
Coa4	1,13025153	0,0000104	0,00000188
Cyp26b1	1,13044704	0,0000000	0,00000000
Rhobtb3	1,13160179	0,0000000	0,00000000
Atp6v0a4	1,13372675	0,0000038	0,00000065
Dnase1l1	1,13445414	0,0001942	0,00004271
Ufsp1	1,13592178	0,0000230	0,00000434
E430018J23Rik	1,13600302	0,0010400	0,00026398
Gpsm3	1,13618376	0,0000000	0,00000000
Tnfrsf10b	1,13712324	0,0000000	0,00000000
Sdr42e1	1,13764225	0,0004515	0,00010710
Fam102a	1,13838533	0,0000000	0,00000000
Ier5	1,13983935	0,0000000	0,00000000
Gm4875	1,14097287	0,0002947	0,00006741
Gask1b	1,14439433	0,0000000	0,00000000
Arhgap26	1,14619896	0,0000000	0,00000000
Lifr	1,14654338	0,0000070	0,00000124
Itgb5	1,14731328	0,0000000	0,00000000
Hexim1	1,14888454	0,0000000	0,00000000
Usp27x	1,14974318	0,0000012	0,00000019
Wbp1	1,15315031	0,0000000	0,00000000
Trappc2	1,15333379	0,0000051	0,00000089
Tram1l1	1,15416093	0,0000008	0,00000013
Tnfaip3	1,15449223	0,0010230	0,00025943
Zbtb26	1,15555203	0,0000000	0,00000000
Tmem176a	1,15696274	0,0000000	0,00000000
Rcn3	1,15912838	0,0000209	0,00000393
Gm29083	1,15991768	0,0018252	0,00048572
Ubald1	1,16185937	0,0000000	0,00000000

Relb	1,16235881	0,0000000	0,00000000
Plaat3	1,16566255	0,0000000	0,00000000
Prokr1	1,16624303	0,0000000	0,00000000
Zfp874a	1,16657049	0,0000000	0,00000000
Gstm2	1,16770141	0,0000000	0,00000000
Slc5a1	1,1682268	0,0005946	0,00014438
Dubr	1,16982677	0,0000000	0,00000000
E130317F20Rik	1,17008169	0,0000138	0,00000253
C1rl	1,17382055	0,0000030	0,00000051
Atxn1	1,17471135	0,0000000	0,00000000
Slc15a2	1,17524899	0,0000000	0,00000000
Gpm6b	1,17646433	0,0000620	0,00001263
Usp20	1,17692282	0,0000000	0,00000000
Csf2ra	1,1784671	0,0000261	0,00000499
Dpy19l3	1,17910268	0,0000000	0,00000000
Gm6665	1,18000835	0,0000000	0,00000000
Lpp	1,18084114	0,0000000	0,00000000
Qpctl	1,18111796	0,0000000	0,00000000
Rdh5	1,18269855	0,0001371	0,00002940
Vim	1,18420154	0,0000000	0,00000000
Loxl2	1,18683843	0,0000074	0,00000131
Zfp57	1,18935549	0,0000005	0,00000008
H2bc21	1,18967118	0,0000000	0,00000000
Klf2	1,19043808	0,0000580	0,00001174
Camk2d	1,19067404	0,0000000	0,00000000
Vgl3	1,19154621	0,0000000	0,00000000
Cpeb3	1,19187274	0,0000000	0,00000000
Adamts13	1,19320239	0,0003698	0,00008623
Mcts2	1,19333791	0,0000000	0,00000000
Serf1	1,19351897	0,0000000	0,00000000
Trim7	1,19521632	0,0000456	0,00000905
Otub2	1,19742576	0,0000000	0,00000000
R74862	1,19862267	0,0000007	0,00000011
Ache	1,20175939	0,0000040	0,00000067
Atf3	1,20324056	0,0000000	0,00000000
2900041M22Rik	1,20549074	0,0002763	0,00006275
Pcdhb5	1,20697815	0,0000072	0,00000127
Aldh1a3	1,20760389	0,0000000	0,00000000
Pcdhb17	1,20773071	0,0000090	0,00000161
Klhl29	1,21031299	0,0000000	0,00000000
Khk	1,21046553	0,0000000	0,00000000
Alpk1	1,21117383	0,0000002	0,00000003

Inpp1	1,21387036	0,0000000	0,00000000
Coq10b	1,21608954	0,0000000	0,00000000
Wipf3	1,21763812	0,0000000	0,00000000
Pik3ip1	1,21997299	0,0000981	0,00002059
Klf9	1,22059256	0,0000000	0,00000000
Csrnp1	1,22099908	0,0000000	0,00000000
Fars2	1,22155139	0,0000000	0,00000000
Rab39b	1,22168976	0,0000526	0,00001058
Usp11	1,22231824	0,0000000	0,00000000
Nat9	1,22283912	0,0000000	0,00000000
Acbd4	1,22299971	0,0000000	0,00000000
Itm2b	1,22420427	0,0000000	0,00000000
Cpm	1,22633735	0,0000000	0,00000000
Nfil3	1,22763325	0,0000000	0,00000000
Pdrg1	1,22835641	0,0000000	0,00000000
Hap1	1,2285804	0,0000000	0,00000000
Inafm2	1,2323184	0,0000000	0,00000000
Casq2	1,23359095	0,0002738	0,00006217
Msrb1	1,2340246	0,0000000	0,00000000
Rsu1	1,23453843	0,0000000	0,00000000
Gstk1	1,23485925	0,0002834	0,00006459
Erap1	1,23501457	0,0000000	0,00000000
Exd1	1,23569311	0,0012725	0,00032845
Plekhn1	1,23643386	0,0018370	0,00048919
Flna	1,23700614	0,0000000	0,00000000
Mob3a	1,23827742	0,0000618	0,00001256
Crem	1,23910759	0,0000000	0,00000000
Mrps6	1,24107088	0,0000000	0,00000000
Sat2	1,24135971	0,0000327	0,00000634
Smim14	1,24146691	0,0000000	0,00000000
Ckb	1,24153222	0,0000000	0,00000000
Marchf3	1,24215008	0,0009136	0,00022935
Ahr	1,24409915	0,0000000	0,00000000
Cyld	1,24412638	0,0000000	0,00000000
Dhrs1	1,24639561	0,0000000	0,00000000
Tmem198b	1,24720356	0,0000000	0,00000000
Asah2	1,24756673	0,0000000	0,00000000
Lrp11	1,2475999	0,0000000	0,00000000
Pigp	1,24766926	0,0000000	0,00000000
Mertk	1,24830768	0,0000046	0,00000078
Gm10825	1,24928516	0,0000021	0,00000035
Soga3	1,24936894	0,0002135	0,00004735

Trmt12	1,25042685	0,0000000	0,00000000
Dock8	1,25274455	0,0000000	0,00000000
Cyp2u1	1,2527853	0,0000000	0,00000000
Cirbp	1,25323395	0,0000000	0,00000000
Slc44a3	1,25896043	0,0000038	0,00000064
Gxylt2	1,26024503	0,0000000	0,00000000
Cldn12	1,26084543	0,0000000	0,00000000
Aff1	1,2622195	0,0000000	0,00000000
A730017L22Rik	1,26472449	0,0000002	0,00000003
Epm2aip1	1,26485198	0,0000000	0,00000000
Bbs10	1,26529338	0,0000002	0,00000003
Eva1c	1,26560025	0,0000239	0,00000453
P3h2	1,26606981	0,0000000	0,00000000
Slc10a3	1,26633663	0,0000000	0,00000000
Etv5	1,2666979	0,0000000	0,00000000
Pxmp4	1,26682576	0,0000000	0,00000000
Acad10	1,26725809	0,0000000	0,00000000
Sesn2	1,26882939	0,0000766	0,00001584
2010320M18Rik	1,26896126	0,0000000	0,00000000
Pgam2	1,26935369	0,0010325	0,00026194
Mcam	1,27018887	0,0000000	0,00000000
Pthr1	1,27071537	0,0000012	0,00000019
Shisa4	1,27309814	0,0000000	0,00000000
Pcx	1,27396053	0,0000000	0,00000000
Gm37352	1,27430054	0,0000000	0,00000000
Anxa11	1,27464085	0,0000000	0,00000000
Trim45	1,27642804	0,0000073	0,00000129
Exoc3l4	1,28102042	0,0000266	0,00000509
Tdrd7	1,2821395	0,0000000	0,00000000
Tspan17	1,28380394	0,0000000	0,00000000
Ebf4	1,2846221	0,0007723	0,00019187
Pde5a	1,28541889	0,0000000	0,00000000
Noct	1,28694001	0,0000000	0,00000000
Idi1-ps1	1,28746444	0,0000000	0,00000000
Kif6	1,29213466	0,0000000	0,00000000
Zscan2	1,29288847	0,0000000	0,00000000
Cdkl2	1,29306477	0,0000000	0,00000000
Rims2	1,29333593	0,0000000	0,00000000
Col11a1	1,29612935	0,0016826	0,00044430
Acadvl	1,29615982	0,0000000	0,00000000
Tm7sf2	1,29618043	0,0000058	0,00000102
Avpil	1,29778411	0,0000000	0,00000000

Aamdc	1,29913364	0,0000000	0,00000000
Bcar1	1,29924591	0,0000000	0,00000000
Gm572	1,2994321	0,0008765	0,00021945
Ly6g5c	1,30294933	0,0004184	0,00009851
Pttg1	1,30327608	0,0000000	0,00000000
Ehd4	1,30603795	0,0000000	0,00000000
0610038B21Rik	1,30684865	0,0000093	0,00000166
Slc9a9	1,30852909	0,0000000	0,00000000
Lancl1	1,30914501	0,0000000	0,00000000
Carmn	1,31061479	0,0016978	0,00044864
Nuak1	1,31116836	0,0000000	0,00000000
Alcam	1,31304602	0,0000000	0,00000000
Sh3tc1	1,31306519	0,0009801	0,00024746
Il13ra1	1,31405215	0,0000000	0,00000000
Blcap	1,31499784	0,0000000	0,00000000
Kend1	1,31523696	0,0000112	0,00000203
Unc93b1	1,31533458	0,0000000	0,00000000
Mmd	1,31616757	0,0000000	0,00000000
Ctsl	1,31657628	0,0000000	0,00000000
Dynlt1b	1,31774326	0,0000029	0,00000048
Pcdha11	1,31779015	0,0009412	0,00023695
Hspa4l	1,317884	0,0000000	0,00000000
Taf9b	1,31852936	0,0000000	0,00000000
Zcwpw1	1,31858366	0,0000719	0,00001479
Tafa5	1,31862679	0,0000222	0,00000418
Map7	1,32017794	0,0002429	0,00005442
Hbegf	1,3225787	0,0000001	0,00000001
Ubash3b	1,32328209	0,0000000	0,00000000
Ehd2	1,32334609	0,0002658	0,00006014
Tnrc18	1,32347996	0,0000000	0,00000000
Yjfn3	1,32546638	0,0000001	0,00000001
Id3	1,32670964	0,0000000	0,00000000
Gm10863	1,32896108	0,0000000	0,00000000
5930430L01Rik	1,32996699	0,0005360	0,00012895
Spaar	1,3301941	0,0003674	0,00008556
Acad11	1,33085667	0,0000000	0,00000000
Pld3	1,33135891	0,0000000	0,00000000
Hspa2	1,33174934	0,0000000	0,00000000
Crebl2	1,33297753	0,0000000	0,00000000
1600012H06Rik	1,33300704	0,0000000	0,00000000
F3	1,33316217	0,0000000	0,00000000
Nudt18	1,33366761	0,0000000	0,00000000

1110032A03Rik	1,33438124	0,0000000	0,00000000
Crebrf	1,33590116	0,0000000	0,00000000
Acyp1	1,33678948	0,0000000	0,00000000
Dusp6	1,33821057	0,0000000	0,00000000
1810024B03Rik	1,33852789	0,0000099	0,00000178
Dlg4	1,33870583	0,0000000	0,00000000
Spry4	1,34294174	0,0000000	0,00000000
Tmem80	1,34428747	0,0000000	0,00000000
Ntng2	1,3443916	0,0017187	0,00045475
Pakap	1,34916681	0,0000299	0,00000576
Tmtc2	1,34960638	0,0000031	0,00000051
Cyb5r3	1,35034637	0,0000000	0,00000000
Gm9791	1,35046231	0,0000038	0,00000064
Wrn	1,35077483	0,0000000	0,00000000
Rrm2b	1,35393015	0,0000000	0,00000000
Ypel4	1,3554107	0,0000004	0,00000006
Duox1	1,35634509	0,0000018	0,00000030
Cyb5d2	1,35764632	0,0000000	0,00000000
Daam2	1,35778873	0,0000000	0,00000000
Ppp1r14c	1,35843235	0,0000022	0,00000035
Tmem230	1,3587987	0,0000000	0,00000000
Myrfl	1,36240769	0,0002138	0,00004743
Anxa7	1,3626737	0,0000000	0,00000000
Fam234a	1,36307605	0,0000000	0,00000000
4930556M19Rik	1,36506769	0,0001174	0,00002495
Gdi1	1,36715015	0,0000000	0,00000000
Rnh1	1,36870694	0,0000000	0,00000000
Thnsl2	1,36912253	0,0000005	0,00000008
Kctd12	1,3708295	0,0000000	0,00000000
Mageh1	1,37085239	0,0000006	0,00000009
Ptp4a3	1,37125095	0,0000000	0,00000000
Gsta1	1,37250769	0,0000000	0,00000000
Akr1b8	1,37275654	0,0000000	0,00000000
Zfp365	1,37302956	0,0000754	0,00001555
Zyx	1,37450647	0,0000000	0,00000000
Pomc	1,37505744	0,0014598	0,00038098
5730471H19Rik	1,37516701	0,0000001	0,00000001
Fam160a1	1,37807469	0,0000107	0,00000192
Asic3	1,37855986	0,0003031	0,00006947
Gm38391	1,3789155	0,0000067	0,00000118
Gm9522	1,38044279	0,0006941	0,00017055
Myl6	1,38134086	0,0000000	0,00000000

Cavin1	1,38227991	0,0000000	0,00000000
Cx3cl1	1,38346349	0,0000000	0,00000000
Gm18609	1,38671595	0,0000636	0,00001297
Dstn	1,3875504	0,0000000	0,00000000
Bbc3	1,387654	0,0000000	0,00000000
Cited2	1,38801386	0,0000000	0,00000000
Bloc1s6	1,38997691	0,0000000	0,00000000
L1cam	1,39198369	0,0000000	0,00000000
Nmi	1,39287214	0,0000000	0,00000000
Srxn1	1,39341551	0,0000000	0,00000000
Trib3	1,3935769	0,0000000	0,00000000
Klhdc7a	1,39475526	0,0003145	0,00007230
1700052K11Rik	1,394844	0,0000502	0,00001007
Capn1	1,39522868	0,0000000	0,00000000
Fbxl20	1,39548905	0,0000000	0,00000000
Arid5a	1,39581871	0,0000000	0,00000000
Fzd5	1,39604642	0,0000000	0,00000000
Morrbid	1,39754317	0,0000000	0,00000000
Pdzd7	1,39831672	0,0000000	0,00000000
H1f0	1,39979796	0,0000000	0,00000000
Arl11	1,40133659	0,0000000	0,00000000
Carhsp1	1,40189705	0,0000000	0,00000000
Cspg4	1,40215584	0,0000000	0,00000000
Fam71f1	1,40257043	0,0000000	0,00000000
Adar	1,40343106	0,0000000	0,00000000
Snap47	1,40620119	0,0000000	0,00000000
Slc25a1	1,40705003	0,0000000	0,00000000
Sfn	1,4075629	0,0000000	0,00000000
Nox4	1,40940856	0,0000000	0,00000000
Gm45495	1,41003041	0,0008277	0,00020653
Larp1b	1,41144621	0,0000000	0,00000000
Pak6	1,41313708	0,0000408	0,00000803
Cdc42ep1	1,41501625	0,0000000	0,00000000
Itgb3	1,4166197	0,0000000	0,00000000
Tmem203	1,41734392	0,0006975	0,00017149
Rnasel	1,41781535	0,0000000	0,00000000
1500015A07Rik	1,41886044	0,0000039	0,00000066
Cyb561	1,42032075	0,0003170	0,00007294
Zfp467	1,4251473	0,0000000	0,00000000
Eif2ak2	1,42678687	0,0000000	0,00000000
Pyurf	1,42773813	0,0000000	0,00000000
Tmem14a	1,42910566	0,0000000	0,00000000

Jak3	1,42910575	0,0000042	0,00000071
Shb	1,4310155	0,0000000	0,00000000
Eno2	1,43335289	0,0000000	0,00000000
Gm28809	1,43446414	0,0000001	0,00000002
Pkia	1,43515654	0,0000000	0,00000000
Tnfaip2	1,4354219	0,0000000	0,00000000
Cyp4f17	1,43685109	0,0000031	0,00000052
Hacl1	1,43689077	0,0000000	0,00000000
Zc2hc1a	1,43786408	0,0000000	0,00000000
Aldoc	1,43786855	0,0000000	0,00000000
Macrodl1	1,4381545	0,0000000	0,00000000
Large1	1,43847709	0,0000000	0,00000000
Cyb561a3	1,4391793	0,0000000	0,00000001
Zbed5	1,44005474	0,0001595	0,00003456
Lrrc51	1,4410366	0,0000000	0,00000000
Dlx6os1	1,44197051	0,0000001	0,00000001
Tmem35b	1,44319599	0,0000239	0,00000453
Nabp1	1,44324327	0,0000000	0,00000000
4921531C22Rik	1,44417573	0,0000020	0,00000033
Prob1	1,44515656	0,0001735	0,00003785
Gabra1	1,4520923	0,0007734	0,00019222
Gm13067	1,4559745	0,0003779	0,00008828
G6pdx	1,456296	0,0000000	0,00000000
Rb1	1,4565192	0,0000000	0,00000000
Mylk	1,45802208	0,0000000	0,00000000
Gstm4	1,46223668	0,0000000	0,00000000
Gm42778	1,46300888	0,0007267	0,00017965
2610306M01Rik	1,46362201	0,0000000	0,00000000
Kyat1	1,46438903	0,0000000	0,00000000
Cavin2	1,46494955	0,0000000	0,00000000
Akr1b3	1,4653992	0,0000000	0,00000000
Ctnnal1	1,4683331	0,0000000	0,00000000
2810013P06Rik	1,46917065	0,0000000	0,00000000
Tmem220	1,47063237	0,0000452	0,00000898
Dok5	1,47082744	0,0000000	0,00000000
Shc3	1,47129936	0,0000000	0,00000000
Ccdc63	1,47130547	0,0011284	0,00028825
Kif9	1,47336388	0,0001518	0,00003280
Pdlim5	1,47403778	0,0000000	0,00000000
Akr1b10	1,4740399	0,0000000	0,00000000
Ehd3	1,47518193	0,0000000	0,00000000
Gm42829	1,47529679	0,0002480	0,00005571

Dgka	1,47893233	0,0000000	0,00000000
Slc30a4	1,47943816	0,0000000	0,00000000
Gm7967	1,48292842	0,0004732	0,00011267
Dner	1,48326022	0,0007164	0,00017686
4930455G09Rik	1,4832964	0,0000107	0,00000193
B230206L02Rik	1,4834033	0,0000000	0,00000000
Draxin	1,48436024	0,0001950	0,00004289
Adamts1	1,48582782	0,0000000	0,00000000
Cmb1	1,48654943	0,0000000	0,00000000
Dyrk1b	1,49254689	0,0000000	0,00000000
1700007L15Rik	1,49256464	0,0000465	0,00000926
Fuz	1,49670156	0,0000000	0,00000000
Polr2l	1,49723167	0,0000000	0,00000000
Nacad	1,4974076	0,0000002	0,00000003
Tnfrsf14	1,49891713	0,0008236	0,00020544
Lrrc27	1,4994076	0,0000000	0,00000000
Gm6736	1,49997153	0,0000000	0,00000000
Klhdc1	1,50209177	0,0000046	0,00000078
Malat1	1,50330046	0,0000000	0,00000000
Csdc2	1,503467	0,0000652	0,00001331
B230216N24Rik	1,50477659	0,0005116	0,00012258
Gm37696	1,50592801	0,0000283	0,00000544
Arl4a	1,5069684	0,0000000	0,00000000
Rnf128	1,50865799	0,0000000	0,00000000
BC024978	1,5097364	0,0000000	0,00000000
Il18	1,51159249	0,0004314	0,00010181
Hdac9	1,51165727	0,0000238	0,00000451
Gfap	1,51299034	0,0000015	0,00000025
Spry2	1,51426344	0,0000000	0,00000000
Pbxip1	1,51484493	0,0000000	0,00000000
Slc46a1	1,51701525	0,0000000	0,00000000
Veph1	1,51899545	0,0001067	0,00002249
Bach2	1,51909674	0,0000000	0,00000000
Gm37305	1,52009733	0,0000000	0,00000000
Rhd	1,52056485	0,0000000	0,00000000
Gm5454	1,52058927	0,0000000	0,00000000
Mylpf	1,5207133	0,0000002	0,00000003
Arhgef9	1,52113875	0,0000001	0,00000001
Fbxo32	1,52148749	0,0000000	0,00000000
Pla2g2e	1,52286946	0,0000000	0,00000000
Itpr3	1,52381701	0,0000000	0,00000000
Ptms	1,52600976	0,0000000	0,00000000

C1ra	1,5289543	0,0000000	0,0000000
Gstol	1,52973323	0,0000000	0,0000000
Gm5456	1,53018706	0,0000430	0,00000851
Eps811	1,53138275	0,0000000	0,0000000
Nudt7	1,53418817	0,0000000	0,0000000
Nrep	1,53465168	0,0000000	0,0000000
Etv1	1,53473564	0,0000000	0,0000000
Mr1	1,53513072	0,0000000	0,0000000
Slc1a4	1,53614067	0,0000000	0,0000000
Sema6d	1,53705565	0,0000000	0,0000000
Olfml3	1,5378737	0,0000000	0,0000000
9330102E08Rik	1,54148977	0,0000000	0,0000000
Gm38158	1,54457839	0,0000000	0,0000000
Dcdc2a	1,54889552	0,0001694	0,00003691
Gsn	1,55107493	0,0000000	0,0000000
Tcta	1,55151922	0,0000000	0,0000000
Tmem86a	1,55373029	0,0000000	0,0000000
Prdx5	1,55561259	0,0000000	0,0000000
Colgalt2	1,55715358	0,0001600	0,00003469
Slc39a13	1,55755465	0,0000000	0,0000000
Nipal4	1,55797107	0,0000000	0,0000000
Ptprd	1,56174733	0,0005124	0,00012281
Tlcd3b	1,56177206	0,0016793	0,00044334
4930402H24Rik	1,56246207	0,0000000	0,0000000
H2-T22	1,56256573	0,0000000	0,0000000
Maged2	1,56388893	0,0000000	0,0000000
Lncenc1	1,56495595	0,0000038	0,00000064
Pam	1,5654993	0,0000000	0,0000000
2010001A14Rik	1,56560657	0,0002144	0,00004758
Naip2	1,5661432	0,0000000	0,0000000
Sync	1,56649311	0,0010849	0,00027616
Gja1	1,56772175	0,0000000	0,0000000
B230217C12Rik	1,57004894	0,0000000	0,0000000
Gm2115	1,57238397	0,0001837	0,00004023
Olfm1	1,57266769	0,0000000	0,0000000
C330011M18Rik	1,57506244	0,0009058	0,00022718
Exoc3l	1,57689814	0,0000462	0,00000919
Lama5	1,57806185	0,0000000	0,0000000
Zfp697	1,58149087	0,0000000	0,0000000
Asap3	1,58161356	0,0010524	0,00026739
Fhl3	1,5835488	0,0000000	0,0000000
Mgat3	1,58454359	0,0017717	0,00047022

Dhh	1,58538942	0,0003770	0,00008802
Kcnu1	1,58637001	0,0000793	0,00001643
Pls3	1,58683768	0,0000000	0,00000000
Klf7	1,58684018	0,0000000	0,00000000
Drc3	1,5903551	0,0000019	0,00000030
Scube3	1,5908861	0,0000000	0,00000000
S100a10	1,59581152	0,0000000	0,00000000
Adcy5	1,5964771	0,0000318	0,00000614
Gm4285	1,59688224	0,0000592	0,00001200
Eme2	1,59693481	0,0000000	0,00000000
Cyp4f13	1,59793008	0,0000000	0,00000000
Gm17435	1,60226433	0,0000005	0,00000007
Cercam	1,6037173	0,0000004	0,00000006
Phyh	1,60409593	0,0000000	0,00000000
Tent5a	1,6050494	0,0000000	0,00000000
Epb41l1	1,6059993	0,0000000	0,00000000
Rbm11	1,60676309	0,0008458	0,00021148
Gm19569	1,60731085	0,0001894	0,00004160
Otos	1,60821988	0,0000072	0,00000127
F8	1,60885765	0,0000000	0,00000000
Rnd3	1,60902584	0,0000000	0,00000000
Col7a1	1,60924785	0,0000000	0,00000000
Traf5	1,60946271	0,0006471	0,00015788
Runx2	1,60966022	0,0000000	0,00000000
Mllt11	1,61273235	0,0000000	0,00000000
Rep15	1,6145789	0,0000029	0,00000048
Tmem190	1,61479133	0,0005064	0,00012122
Sphk1	1,61489163	0,0000000	0,00000000
Slc17a7	1,61502544	0,0000562	0,00001135
Procr	1,61510122	0,0000000	0,00000000
Was	1,61534616	0,0002816	0,00006408
Tgfb1	1,61603368	0,0000000	0,00000000
Scrn1	1,61966241	0,0000000	0,00000000
Prrg2	1,62114571	0,0000000	0,00000000
Il4ra	1,62148586	0,0000529	0,00001065
Slc2a13	1,62446179	0,0000694	0,00001424
Slc43a2	1,63319219	0,0000000	0,00000000
Nat8f1	1,6339804	0,0000137	0,00000251
H2-Eb1	1,63418453	0,0017306	0,00045805
Chrm1	1,63456749	0,0013816	0,00035905
Psd3	1,63740347	0,0000001	0,00000001
Etfrf1	1,63808298	0,0000000	0,00000000

Il1rap	1,63860141	0,0000000	0,00000000
Elov17	1,642172	0,0000000	0,00000000
Nnmt	1,64374643	0,0000000	0,00000000
Eva1a	1,64641174	0,0000000	0,00000000
Abhd4	1,64834561	0,0000000	0,00000000
Hdac7	1,65087622	0,0000000	0,00000000
9330104G04Rik	1,65207711	0,0000016	0,00000026
Ahrr	1,65231131	0,0000000	0,00000000
Ypel2	1,65256007	0,0000000	0,00000000
Ccng1	1,65260266	0,0000000	0,00000000
Hkdc1	1,65505735	0,0002449	0,00005490
Foxr2	1,65578968	0,0000000	0,00000000
Dop1b	1,65653544	0,0000000	0,00000000
Gadd45b	1,65656423	0,0000000	0,00000000
Irs2	1,65832447	0,0000000	0,00000000
Tcn2	1,65891315	0,0000000	0,00000000
C030014I23Rik	1,6614541	0,0000043	0,00000073
Rasl1a	1,66319844	0,0000000	0,00000000
Mgst1	1,66502574	0,0000000	0,00000000
Kenn4	1,66551036	0,0003693	0,00008608
Bcl2l1	1,66706534	0,0000000	0,00000000
Adcy1	1,66782497	0,0016872	0,00044559
Fbxo6	1,66856857	0,0000000	0,00000000
Ampd3	1,66881518	0,0000000	0,00000000
Aldh3b1	1,66918052	0,0000000	0,00000000
Gm20125	1,67158568	0,0016741	0,00044190
Nebl	1,67196876	0,0000000	0,00000000
Myl6b	1,67328703	0,0000000	0,00000000
Myliip	1,67437848	0,0000000	0,00000000
1700096K18Rik	1,67743156	0,0002480	0,00005569
Hmox1	1,67922639	0,0000000	0,00000000
Fam214a	1,68061285	0,0000000	0,00000000
Map1lc3a	1,68131841	0,0000000	0,00000000
Rgs2	1,68154569	0,0000000	0,00000000
Epha7	1,68374879	0,0000000	0,00000000
H2-DMa	1,68389668	0,0002945	0,00006734
Kazald1	1,6844781	0,0005889	0,00014282
1110025M09Rik	1,68604108	0,0002475	0,00005555
Alyref2	1,69036912	0,0002048	0,00004524
Eef1a2	1,69266862	0,0001490	0,00003214
Gm16124	1,69667766	0,0001204	0,00002561
Ssc5d	1,69711477	0,0000000	0,00000000

Fgfr1	1,70001107	0,0000000	0,00000000
3930402G23Rik	1,70110365	0,0000090	0,00000160
Arap3	1,7018172	0,0000000	0,00000000
Cebpb	1,70235908	0,0000000	0,00000000
Ifi2712a	1,70367892	0,0013697	0,00035536
Esd	1,70794999	0,0000000	0,00000000
Parp11	1,70834871	0,0000000	0,00000000
Cartpt	1,70863394	0,0014432	0,00037625
Cd59a	1,70974142	0,0000000	0,00000000
Platr22	1,70976361	0,0016989	0,00044902
Mme	1,7106419	0,0000000	0,00000000
Abcg2	1,71148117	0,0000000	0,00000000
Fam71e1	1,71223957	0,0000352	0,00000686
Lyz2	1,7184312	0,0016158	0,00042544
Junb	1,72111065	0,0000000	0,00000000
Flot1	1,72248586	0,0000000	0,00000000
Gucy1a1	1,7239646	0,0003536	0,00008205
Ccdc28a	1,7246903	0,0000000	0,00000000
Cadm4	1,72637005	0,0000000	0,00000000
Emp2	1,72771884	0,0013148	0,00034030
Syne3	1,72937978	0,0000000	0,00000000
Dtx4	1,73186575	0,0000035	0,00000058
Ggta1	1,73412185	0,0000004	0,00000006
Capn5	1,73427932	0,0000000	0,00000000
Atf5	1,73515856	0,0000000	0,00000000
Sparc	1,736879	0,0000000	0,00000000
Vwa5a	1,73882561	0,0000000	0,00000000
Kdm7a	1,73972455	0,0000000	0,00000000
Kdm5b	1,74146198	0,0000000	0,00000000
Lpar6	1,74270562	0,0000000	0,00000000
Bmp8a	1,74350689	0,0003951	0,00009270
Magi3	1,74562411	0,0000000	0,00000000
Thsd4	1,74980477	0,0011100	0,00028308
Yipf2	1,75138048	0,0000000	0,00000000
Col4a1	1,75315805	0,0000000	0,00000000
BC043934	1,75461677	0,0000000	0,00000000
Gm11696	1,75615523	0,0000005	0,00000008
Acad12	1,75648524	0,0000000	0,00000000
Crim1	1,75809038	0,0000000	0,00000000
Inka2	1,7603129	0,0001708	0,00003723
Nobox	1,76377122	0,0010901	0,00027759
Serinc3	1,7664747	0,0000000	0,00000000

Fosb	1,76661178	0,0000008	0,00000013
Hsd3b1	1,76663538	0,0011243	0,00028705
Hspb2	1,76678803	0,0000000	0,00000000
Hmga2	1,76922655	0,0000000	0,00000000
C920009B18Rik	1,77067293	0,0000000	0,00000000
Tinagl1	1,77192134	0,0000317	0,00000612
Slc11a1	1,77503182	0,0000022	0,00000037
Entpd2	1,77588151	0,0004959	0,00011846
Gstm7	1,77643594	0,0000000	0,00000000
Klhdc8b	1,77691855	0,0000000	0,00000000
Trp53cor1	1,77709168	0,0000000	0,00000000
Tsc22d1	1,77819942	0,0000000	0,00000000
Hmgcl1	1,77832417	0,0010772	0,00027414
Gm42901	1,77832417	0,0010772	0,00027414
Phldb2	1,77926288	0,0000000	0,00000000
Jph2	1,77932531	0,0013181	0,00034125
Gm37397	1,78057093	0,0002183	0,00004851
Gm12138	1,78420597	0,0000000	0,00000000
Itga2	1,78452243	0,0000140	0,00000256
Serpib8	1,78455097	0,0000012	0,00000019
Stom	1,78456064	0,0000000	0,00000000
9130023H24Rik	1,78475285	0,0000000	0,00000000
Tulp1	1,78539749	0,0004591	0,00010904
Gm15850	1,78651546	0,0001219	0,00002597
Zfp36	1,78719898	0,0000000	0,00000000
Mapre3	1,78903365	0,0000000	0,00000000
Cst6	1,79094597	0,0000000	0,00000000
Fam161a	1,79138602	0,0003532	0,00008195
Ssc4d	1,79563411	0,0000000	0,00000000
Tiam2	1,79690216	0,0000000	0,00000000
H2-M10.5-ps1	1,7972992	0,0009862	0,00024914
Cracdl	1,79731574	0,0007225	0,00017846
Ephx1	1,79734027	0,0000000	0,00000000
Atf6	1,79749122	0,0000000	0,00000000
Plat	1,7995395	0,0000000	0,00000000
Cdk14	1,80075436	0,0000000	0,00000000
Angpt2	1,8024121	0,0000000	0,00000000
A930033H14Rik	1,80241974	0,0000804	0,00001670
Rhpn2	1,80273983	0,0000201	0,00000376
Rgs16	1,8027542	0,0000000	0,00000000
Tlr3	1,80362114	0,0000000	0,00000000
Tor4a	1,80403014	0,0000000	0,00000000

Ces2g	1,80436469	0,0009648	0,00024328
Cib4	1,80436469	0,0009648	0,00024328
Gm11638	1,80799258	0,0009423	0,00023738
Rtl5	1,80816918	0,0000276	0,00000528
Maf	1,8101436	0,0000000	0,00000000
Adam8	1,81027859	0,0000012	0,00000020
Tmeff2	1,81036626	0,0004041	0,00009494
Mpv17l	1,81104518	0,0000000	0,00000000
Pinlyp	1,81146711	0,0009363	0,00023559
Duox2	1,81146711	0,0009363	0,00023559
Gm7936	1,81260942	0,0000004	0,00000006
Bcl6	1,81311236	0,0000000	0,00000000
Aldh1l2	1,81355938	0,0000000	0,00000000
Trim17	1,81475727	0,0000053	0,00000091
Coro2a	1,8150761	0,0006975	0,00017149
Fgfr1	1,81574926	0,0000000	0,00000000
Ankrd42	1,81632815	0,0000000	0,00000000
Dgat2	1,81963359	0,0000000	0,00000000
Fam43a	1,82058114	0,0004656	0,00011073
D330050G23Rik	1,82075481	0,0000242	0,00000460
Plk3	1,82573953	0,0000000	0,00000000
Olfir56	1,82587557	0,0003694	0,00008612
Nectin4	1,82619827	0,0009059	0,00022726
Map3k9	1,82702462	0,0000003	0,00000004
Adam23	1,82710601	0,0000000	0,00000000
Fcgrt	1,83058612	0,0000000	0,00000000
Pcolce2	1,83059	0,0000619	0,00001258
Tymp	1,83425241	0,0000000	0,00000001
Vmac	1,83720084	0,0000000	0,00000000
Ctsh	1,83749117	0,0000000	0,00000000
Bmp1	1,83819218	0,0000000	0,00000000
Apol10b	1,83912496	0,0008236	0,00020545
Gm11639	1,83932529	0,0007398	0,00018309
Guca1a	1,83975697	0,0000000	0,00000000
Tec	1,84053456	0,0000000	0,00000000
4930447F24Rik	1,84249265	0,0000563	0,00001137
Gch1	1,84314715	0,0000001	0,00000001
B4galnt3	1,84339828	0,0017456	0,00046228
Bcam	1,84916211	0,0000000	0,00000000
Gm11490	1,85010903	0,0014018	0,00036458
Jup	1,85125263	0,0000000	0,00000000
Plin2	1,85145833	0,0000000	0,00000000

E230013L22Rik	1,85227842	0,0007694	0,00019111
Camk2b	1,85354633	0,0000000	0,00000000
Ano1	1,85477798	0,0000000	0,00000000
8030451A03Rik	1,8553003	0,0007099	0,00017509
Ptk7	1,85824174	0,0000002	0,00000003
Prss56	1,85915058	0,0013181	0,00034127
Chac1	1,85993682	0,0000000	0,00000000
Cd1d1	1,86151733	0,0001281	0,00002739
Rbpms2	1,86451574	0,0000000	0,00000000
Fam117a	1,86819294	0,0000011	0,00000018
Efnb2	1,86927782	0,0000000	0,00000000
Rimbp3	1,86967327	0,0000003	0,00000004
Tmem229b	1,8705056	0,0000000	0,00000000
Egr2	1,87161346	0,0016284	0,00042906
Serpinf1	1,8746418	0,0000000	0,00000000
Atp10b	1,87532343	0,0000001	0,00000001
Wdr45	1,87546689	0,0000000	0,00000000
Gm15753	1,87773884	0,0007098	0,00017501
Hrh1	1,87824964	0,0007122	0,00017568
Glis3	1,87892372	0,0000000	0,00000000
Isoc2b	1,8791344	0,0000000	0,00000000
Abca8b	1,87919949	0,0000000	0,00000000
Tgif1	1,87977824	0,0000000	0,00000000
Olig3	1,88047657	0,0006347	0,00015467
Coll2a1	1,88236857	0,0000000	0,00000000
P2rx3	1,88399028	0,0005128	0,00012291
Tnfrsf12a	1,88546585	0,0000000	0,00000000
Grik3	1,88562646	0,0000000	0,00000000
Gm20005	1,88571268	0,0000077	0,00000136
Hid1	1,88670053	0,0000000	0,00000000
Cd68	1,88804298	0,0000000	0,00000000
Slc40a1	1,88887907	0,0000000	0,00000000
Steap1	1,88963751	0,0000000	0,00000000
Gsta5	1,89173038	0,0002601	0,00005872
Gm12854	1,89483469	0,0000000	0,00000000
Rln1	1,8975674	0,0011920	0,00030588
Trim47	1,89767906	0,0000000	0,00000000
Scrt1	1,89861362	0,0006384	0,00015563
Pde7b	1,90109842	0,0000000	0,00000000
Tmem102	1,9026744	0,0013788	0,00035826
Gm14808	1,90352349	0,0000005	0,00000007
Hsd11b1	1,90384465	0,0000000	0,00000000

Psme2	1,90490207	0,0000000	0,00000000
Flnc	1,90580271	0,0000136	0,00000248
Bpifa2	1,90604347	0,0006347	0,00015465
Mettl27	1,90613673	0,0000000	0,00000000
Pcdhb3	1,90718722	0,0006416	0,00015651
Igsf23	1,9098204	0,0000013	0,00000021
Gm15704	1,91102407	0,0006027	0,00014651
Papln	1,91177241	0,0000000	0,00000000
Sec16b	1,91407385	0,0000000	0,00000000
Tnfrsf1b	1,9142587	0,0000437	0,00000865
Aldh6a1	1,91618073	0,0000000	0,00000000
Shisa5	1,9187639	0,0000000	0,00000000
Bpgm	1,9197028	0,0000000	0,00000000
GlrX	1,92253767	0,0000000	0,00000000
Iglon5	1,92376644	0,0000045	0,00000078
Nedd9	1,92501887	0,0000339	0,00000658
Bcar3	1,92614922	0,0000000	0,00000000
Esyt1	1,9292159	0,0000000	0,00000000
Pcdhb16	1,93080899	0,0000000	0,00000000
Gm5617	1,93452711	0,0000000	0,00000000
2810402E24Rik	1,93548992	0,0000000	0,00000000
Dmkn	1,93850714	0,0005485	0,00013231
Zswim4	1,93975303	0,0000000	0,00000000
Mmp10	1,94173685	0,0005450	0,00013139
Trim66	1,94804319	0,0008406	0,00021007
Neurl1a	1,9489109	0,0000000	0,00000000
F11r	1,9522613	0,0000000	0,00000000
Klhl26	1,95270656	0,0000000	0,00000000
Gm37855	1,95608957	0,0000000	0,00000000
Styx11	1,95907017	0,0007961	0,00019826
Ano2	1,95911509	0,0001346	0,00002884
Pon3	1,95959241	0,0000000	0,00000000
Tmem119	1,96095641	0,0005586	0,00013489
Ell2	1,96118679	0,0000000	0,00000000
Apoa2	1,96170543	0,0000042	0,00000071
Galr2	1,9618053	0,0000000	0,00000000
Ypel3	1,96242286	0,0000000	0,00000000
Gsap	1,9629209	0,0011934	0,00030631
Cstb	1,96399738	0,0000000	0,00000000
Prune2	1,96476946	0,0000000	0,00000000
Gcnt2	1,96547323	0,0000000	0,00000000
Pnck	1,9664037	0,0000000	0,00000000

Tnfsf10	1,9675809	0,0004845	0,00011564
Dusp5	1,96813737	0,0000007	0,00000012
Gsta2	1,96898258	0,0000000	0,00000000
Pcdhb7	1,96901388	0,0000610	0,00001240
Ifit1bl1	1,97026089	0,0007538	0,00018685
Gm45713	1,97078664	0,0001461	0,00003148
Ppm1j	1,97177992	0,0005878	0,00014252
Irs1	1,97569574	0,0000000	0,00000000
Gm37170	1,97581134	0,0000014	0,00000022
1700057H21Rik	1,97584518	0,0003818	0,00008929
Serinc5	1,97622882	0,0000000	0,00000000
Gm13110	1,976444	0,0000000	0,00000000
Ptprn	1,97688718	0,0000629	0,00001281
4930539M17Rik	1,97713076	0,0007416	0,00018361
Arid5b	1,97716767	0,0000000	0,00000000
Aldh1l1	1,98453018	0,0000000	0,00000000
Mthfd2l	1,98483144	0,0000000	0,00000000
Cpt1c	1,98485155	0,0000000	0,00000000
S100a11	1,9853842	0,0000000	0,00000000
Fbxw9	1,98721218	0,0000000	0,00000000
Odf3l1	1,98812252	0,0000000	0,00000000
Dio2	1,98816233	0,0000931	0,00001948
Herc3	1,98820461	0,0000000	0,00000000
Atoh8	1,98827322	0,0000000	0,00000000
Ilk	1,98985433	0,0010244	0,00025984
Adamts7	1,99333356	0,0000076	0,00000135
Mcub	1,993689	0,0001488	0,00003209
Gm8860	1,99684351	0,0004062	0,00009545
Adamts4	1,99734027	0,0000000	0,00000000
Syt11	1,99820372	0,0000000	0,00000000
Cxcl1	1,99988561	0,0002125	0,00004708
Wnt3	2,00016036	0,0004161	0,00009789
Adssl1	2,00016828	0,0000000	0,00000000
Fahd1	2,00343172	0,0000000	0,00000000
Gm12187	2,0041593	0,0004239	0,00009994
Gm7665	2,00519248	0,0000000	0,00000000
4930533K18Rik	2,00647074	0,0016682	0,00044010
Gm10602	2,00895419	0,0000000	0,00000000
Gm10461	2,01118049	0,0000004	0,00000006
Tnfrsf26	2,01150644	0,0007140	0,00017617
Gm15663	2,01214641	0,0002365	0,00005292
Fam13c	2,0155199	0,0000000	0,00000000

Rfpl4b	2,01600684	0,0003537	0,00008210
Serpini1	2,01760834	0,0000000	0,00000000
Pacrg	2,0187318	0,0002259	0,00005029
Trim56	2,02042824	0,0000000	0,00000000
Gm4755	2,02261847	0,0000180	0,00000335
Xkr6	2,02322632	0,0003816	0,00008923
Mest	2,02380142	0,0000000	0,00000000
Gm42815	2,0266634	0,0000518	0,00001040
Card10	2,0285316	0,0000000	0,00000000
Spred3	2,02963046	0,0000000	0,00000000
Dhrs9	2,03219364	0,0003555	0,00008255
Slit2	2,03258296	0,0000000	0,00000000
Hes1	2,03278391	0,0000000	0,00000000
Gmpr	2,03545798	0,0000000	0,00000000
Def6	2,03702045	0,0000000	0,00000000
Sema3c	2,03832071	0,0000000	0,00000000
9230114K14Rik	2,04068389	0,0000000	0,00000000
Rom1	2,04276053	0,0000000	0,00000000
Lipc	2,04449625	0,0001837	0,00004022
Syt8	2,0449586	0,0003521	0,00008165
Zscan4d	2,0449586	0,0003521	0,00008165
Stbd1	2,04572378	0,0009877	0,00024963
Sag	2,04588442	0,0000000	0,00000000
Map2k3os	2,04629527	0,0000000	0,00000000
Lgals9	2,04962034	0,0000000	0,00000000
Rfx4	2,04980634	0,0001766	0,00003858
Tspyl4	2,05102637	0,0000000	0,00000000
Gm28818	2,05337773	0,0003733	0,00008713
Gm26651	2,06007064	0,0014401	0,00037530
Oit3	2,06354879	0,0013377	0,00034675
Ctso	2,06367315	0,0000000	0,00000000
Gm10575	2,06936458	0,0000124	0,00000226
Scn2a	2,06999246	0,0000000	0,00000000
Mical2	2,07262741	0,0000000	0,00000000
Lcp1	2,07292579	0,0000000	0,00000000
Rsph1	2,07760011	0,0000001	0,00000002
Socs1	2,07810555	0,0000000	0,00000000
Slc5a3	2,07888438	0,0000000	0,00000000
Hrc	2,08457762	0,0000350	0,00000682
Pcdhb15	2,08516175	0,0000000	0,00000000
Rnd1	2,08551189	0,0000000	0,00000000
Sarm1	2,08685122	0,0000000	0,00000000

Dnmt3l	2,08739353	0,0002702	0,00006128
Gm11216	2,08939294	0,0002975	0,00006809
Gadd45a	2,08967923	0,0000000	0,00000000
Phkg1	2,09002453	0,0000000	0,00000000
Capg	2,09008989	0,0000000	0,00000000
Cebpd	2,09060971	0,0000000	0,00000000
Alpk2	2,09362845	0,0002930	0,00006692
Tmem92	2,09534689	0,0002833	0,00006455
Tcaf2	2,09563774	0,0000000	0,00000000
Thrb	2,09831899	0,0001797	0,00003931
Gm15910	2,10338166	0,0000002	0,00000003
Dusp14	2,10367058	0,0000000	0,00000000
Lrtm2	2,10602296	0,0000760	0,00001570
Ttll7	2,1103024	0,0000000	0,00000000
Hsd17b7	2,11371665	0,0000000	0,00000000
Irak2	2,11687397	0,0000000	0,00000000
Reps2	2,11803389	0,0002589	0,00005841
Fut4	2,11979007	0,0001258	0,00002684
Bgn	2,11983487	0,0002632	0,00005950
4930447N08Rik	2,12322547	0,0004497	0,00010662
Ddah1	2,12335379	0,0000000	0,00000000
Cma1	2,12485059	0,0002459	0,00005516
Cstad	2,12529125	0,0001788	0,00003910
Slc6a9	2,13080142	0,0000000	0,00000000
Gm32591	2,13169143	0,0000004	0,00000006
Gstm6	2,13252855	0,0000000	0,00000000
Lhx6	2,13625418	0,0000099	0,00000177
Upp1	2,13768138	0,0000192	0,00000358
Svop	2,13905672	0,0002081	0,00004603
Anxa2	2,14228759	0,0000000	0,00000000
Loxl4	2,14260495	0,0000000	0,00000000
Col4a5	2,14405128	0,0000000	0,00000000
Mucl3	2,14636055	0,0000072	0,00000128
1700003M07Rik	2,14669956	0,0009877	0,00024957
Psme2b	2,14745906	0,0000000	0,00000000
Uox	2,14881575	0,0000566	0,00001142
AW011738	2,15039036	0,0000000	0,00000000
Pcdhb11	2,15094262	0,0000000	0,00000000
Rcan2	2,15249727	0,0002540	0,00005721
Ccdc96	2,15355732	0,0000000	0,00000000
Siglecg	2,15570246	0,0001993	0,00004395
AI839979	2,16271317	0,0000000	0,00000000

Piwil4	2,16448265	0,0002130	0,00004721
Mvp	2,16606531	0,0000000	0,00000000
Tek	2,17030707	0,0002102	0,00004652
Dcxr	2,1713572	0,0000000	0,00000000
Tmem217	2,17645526	0,0002307	0,00005146
Zscan4c	2,17725467	0,0008490	0,00021232
S100a8	2,17729609	0,0002071	0,00004579
Pcdhb9	2,17778997	0,0000430	0,00000850
Defb25	2,17817578	0,0000346	0,00000673
Nol4	2,18076595	0,0000000	0,00000000
Tcam1	2,18288798	0,0000226	0,00000427
Cpne5	2,18367303	0,0008212	0,00020475
Cngb1	2,18769198	0,0000000	0,00000000
Cnga3	2,19527806	0,0001887	0,00004140
Fgf1	2,19753693	0,0000000	0,00000000
Tmem202	2,19808165	0,0000000	0,00000000
Gm43549	2,19972088	0,0000000	0,00000000
Pcp4l1	2,20001444	0,0001867	0,00004092
Pcdh9	2,20059174	0,0000000	0,00000000
Cyp3a16	2,20363474	0,0000610	0,00001239
Ddx4	2,20387588	0,0000570	0,00001151
2210010C04Rik	2,20534051	0,0000017	0,00000027
Ccn4	2,20706011	0,0000000	0,00000000
Sgk1	2,20852808	0,0000000	0,00000000
Fam214b	2,20878358	0,0000000	0,00000000
Ank3	2,21024568	0,0000000	0,00000000
Sv2b	2,21172112	0,0000000	0,00000000
Tor3a	2,21282093	0,0000000	0,00000000
Ptges	2,21455415	0,0002292	0,00005111
Vcl	2,21716023	0,0000000	0,00000000
Pwwp3b	2,21850728	0,0000000	0,00000000
Gm26616	2,21862569	0,0000000	0,00000000
Psd2	2,22672072	0,0000313	0,00000606
Gm16201	2,2274807	0,0000035	0,00000060
Timp1	2,22756959	0,0000000	0,00000000
C130013H08Rik	2,22875209	0,0000000	0,00000000
Sult6b1	2,22912923	0,0000000	0,00000000
Tbc1d2	2,22920759	0,0000000	0,00000000
C130083M11Rik	2,2298371	0,0000000	0,00000000
Ccnd1	2,23010944	0,0000000	0,00000000
Vamp1	2,23220055	0,0000000	0,00000000
A230083G16Rik	2,23566463	0,0000001	0,00000001

Marchf4	2,23656466	0,0001033	0,00002172
Neurl3	2,23758105	0,0000000	0,00000000
Gm4524	2,23993211	0,0000000	0,00000000
Slc2a9	2,24113486	0,0000000	0,00000000
Pcdhb8	2,24129195	0,0000274	0,00000525
Sned1	2,24212237	0,0000000	0,00000000
Eif1ad8	2,24264705	0,0001512	0,00003267
Hao1	2,24622011	0,0000335	0,00000649
Septin4	2,25063762	0,0000000	0,00000000
9130008F23Rik	2,25127411	0,0000000	0,00000000
H1f11-ps	2,2519974	0,0000670	0,00001370
Gm16104	2,25236631	0,0000019	0,00000031
Elfn1	2,25301964	0,0005351	0,00012871
Ttl6	2,25580668	0,0005303	0,00012751
Pcdhb2	2,25679869	0,0000005	0,00000007
Pramel31	2,25828356	0,0005760	0,00013939
Rbms3	2,25982379	0,0000003	0,00000005
Gm12216	2,26060296	0,0002933	0,00006699
Dpf3	2,26193769	0,0000093	0,00000167
Gm5546	2,26377497	0,0000000	0,00000000
Fosl1	2,2643095	0,0000002	0,00000002
Gm20257	2,26629238	0,0000000	0,00000000
Adams14	2,26696854	0,0000000	0,00000000
Rras	2,27128516	0,0000000	0,00000000
Camk1d	2,27316768	0,0017545	0,00046522
Lpin3	2,27694556	0,0000000	0,00000000
Btla	2,27865836	0,0000682	0,00001398
Styk1	2,28110886	0,0001540	0,00003333
Uchl1	2,28162522	0,0000000	0,00000000
Trim16	2,28827934	0,0000000	0,00000000
Samd5	2,29029723	0,0000000	0,00000000
Gngt2	2,29399602	0,0016467	0,00043410
Podn	2,2985527	0,0001240	0,00002644
Trp53inp1	2,29952869	0,0000000	0,00000000
Neb	2,30253942	0,0000000	0,00000000
Frat2	2,30263781	0,0000000	0,00000001
Slc39a4	2,3027069	0,0000203	0,00000380
Pqlc3	2,30304807	0,0000000	0,00000000
Spp1	2,30329949	0,0000000	0,00000000
Pdlim2	2,30788529	0,0000000	0,00000000
Gm13056	2,30872343	0,0001191	0,00002534
Msrb3	2,31052511	0,0000000	0,00000000

Igfbp6	2,31451118	0,0000257	0,00000489
Scnn1a	2,31582891	0,0000513	0,00001030
Gm5152	2,32042464	0,0015140	0,00039622
Tm4sf1	2,32075809	0,0000000	0,00000000
Pde4a	2,32359642	0,0000000	0,00000000
Gm44386	2,32476375	0,0000000	0,00000000
Igf2bp2	2,32631439	0,0000000	0,00000000
Pkp2	2,32644063	0,0000000	0,00000000
Ptprf	2,327558	0,0000000	0,00000000
Calcoco1	2,3281609	0,0000000	0,00000000
Usp17lc	2,3308913	0,0001033	0,00002173
Gm8818	2,33096136	0,0000000	0,00000000
Hacd4	2,33281234	0,0000000	0,00000000
2700046G09Rik	2,33488312	0,0000000	0,00000000
Shank1	2,33789576	0,0000000	0,00000000
Pdcd4	2,33884759	0,0000000	0,00000000
Ccdc189	2,34435557	0,0000000	0,00000000
9530034E10Rik	2,34578897	0,0000946	0,00001980
Trim21	2,3458533	0,0000000	0,00000000
Pcdh1	2,34778451	0,0000000	0,00000000
Tmem72	2,350519	0,0013287	0,00034416
Ypel5	2,35125604	0,0000000	0,00000000
Aldh1a1	2,35520238	0,0000859	0,00001789
0610009L18Rik	2,35602919	0,0000001	0,00000001
Gm44250	2,35618539	0,0000000	0,00000000
Spsb2	2,36030929	0,0000000	0,00000000
Ass1	2,36203112	0,0000000	0,00000000
Mov10	2,36250337	0,0000000	0,00000000
Gm26645	2,36952137	0,0000007	0,00000010
H2aw	2,36993425	0,0000000	0,00000000
H2-D1	2,37279197	0,0000000	0,00000000
Cd79a	2,37420431	0,0000010	0,00000015
Mt3	2,38235657	0,0002876	0,00006562
Greb1	2,38253971	0,0000000	0,00000000
Akp-ps1	2,38411984	0,0000222	0,00000418
Slc22a4	2,38551055	0,0000008	0,00000012
Gm5424	2,39366779	0,0000000	0,00000000
Fosl2	2,39429414	0,0000000	0,00000000
Pcdhb4	2,39653651	0,0000000	0,00000000
Cntn1	2,39741339	0,0000000	0,00000000
Cdkn1a	2,39798428	0,0000000	0,00000000
Zcchc24	2,40355044	0,0000000	0,00000000

Gpr35	2,40719669	0,0000000	0,00000000
Pyroxd2	2,40816507	0,0000000	0,00000000
Syn1	2,41127012	0,0000000	0,00000000
Gbe1	2,41306017	0,0000000	0,00000000
Gm3716	2,41851831	0,0000000	0,00000000
Gm10800	2,42505843	0,0000005	0,00000007
Jam2	2,42881822	0,0000000	0,00000000
Pparg	2,42933711	0,0000017	0,00000028
Gm12059	2,42955359	0,0000000	0,00000000
Tcp11l2	2,4346037	0,0000000	0,00000000
Tslp	2,435082	0,0000000	0,00000000
Gsdmd	2,44330388	0,0000000	0,00000000
Plekhh2	2,44554727	0,0000000	0,00000000
Txlnb	2,44645181	0,0000008	0,00000013
B2m	2,4469379	0,0000000	0,00000000
Tent5c	2,44989681	0,0000000	0,00000000
Mturn	2,45056448	0,0000000	0,00000000
Psbm9	2,45139067	0,0000854	0,00001778
P2ry6	2,45157536	0,0000656	0,00001340
Nptx1	2,45305759	0,0000000	0,00000000
Megf10	2,45333225	0,0000000	0,00000000
Faim2	2,45739247	0,0009340	0,00023483
Slc16a13	2,45834762	0,0000000	0,00000000
Gm28447	2,46052278	0,0000001	0,00000002
Robo2	2,46185427	0,0000030	0,00000049
Cyb5r2	2,46214729	0,0000000	0,00000000
Gm12602	2,46745354	0,0000000	0,00000000
Cnn2	2,46806223	0,0000000	0,00000000
Mxd4	2,47131692	0,0000000	0,00000000
Slco2a1	2,47650098	0,0000001	0,00000001
Gm11816	2,47670132	0,0000591	0,00001199
Gadd45g	2,47840084	0,0000000	0,00000000
Sp110	2,48041845	0,0000716	0,00001471
Ahnak	2,48434457	0,0000000	0,00000000
Jag1	2,4851173	0,0000000	0,00000000
Ccpg1os	2,48547258	0,0000000	0,00000000
Chst11	2,48912392	0,0000000	0,00000000
Dtx3l	2,49527986	0,0000000	0,00000000
Azin2	2,49538698	0,0000000	0,00000000
Glpr2	2,4965854	0,0000000	0,00000000
Gstm1	2,49665809	0,0000000	0,00000000
ligp1	2,50100238	0,0000506	0,00001015

Bcl11b	2,51035471	0,0000060	0,00000104
Kcnk3	2,51172301	0,0000463	0,00000922
Cdk5r2	2,51174822	0,0000000	0,00000000
Sfxn3	2,51378478	0,0000000	0,00000000
Tmem171	2,51381869	0,0000502	0,00001005
Slc7a11	2,5174001	0,0000000	0,00000000
Gfra1	2,51767466	0,0000000	0,00000000
Arhgef19	2,5196302	0,0000000	0,00000000
Niban1	2,52218077	0,0000000	0,00000000
Hecw2	2,52486749	0,0000000	0,00000000
Trp53inp2	2,52868497	0,0000000	0,00000000
Sod3	2,52898469	0,0000000	0,00000000
Plcb2	2,52965738	0,0000000	0,00000000
Selenop	2,53656024	0,0000000	0,00000000
Ctsf	2,53772462	0,0000000	0,00000000
Gm11734	2,53828163	0,0000000	0,00000000
Gm9899	2,53888394	0,0000453	0,00000900
Rida	2,54182349	0,0000000	0,00000000
Usp17lb	2,54246115	0,0007051	0,00017359
Gstm2-ps1	2,54293575	0,0000000	0,00000000
Esr2	2,54384285	0,0000401	0,00000790
Adgra1	2,54925011	0,0007068	0,00017418
Trim14	2,55110084	0,0000000	0,00000000
Sec14l5	2,55146369	0,0006621	0,00016205
Gpat3	2,55364004	0,0000002	0,00000003
Susd3	2,55378288	0,0000000	0,00000000
Arhgef28	2,5538354	0,0000000	0,00000000
Oas1c	2,5572971	0,0000000	0,00000000
Parp3	2,55784076	0,0000000	0,00000000
Synm	2,55911913	0,0000000	0,00000000
Mir22hg	2,5637348	0,0000000	0,00000000
Asb2	2,56670867	0,0000000	0,00000000
Pltp	2,56677154	0,0000000	0,00000000
Unc5b	2,57177879	0,0000000	0,00000000
Dusp10	2,57407662	0,0000000	0,00000000
Aox1	2,57531556	0,0000000	0,00000000
P2rx5	2,57643921	0,0000000	0,00000000
Cp	2,58045777	0,0000000	0,00000000
Cited4	2,58234143	0,0000049	0,00000085
Slc37a2	2,58727233	0,0000000	0,00000000
Mx1	2,58753803	0,0000000	0,00000000
Dnah5	2,58943153	0,0006134	0,00014923

Dusp27	2,59287089	0,0000000	0,00000000
Cd109	2,59384553	0,0000000	0,00000000
Gm10687	2,59527434	0,0000000	0,00000000
Chit1	2,59819302	0,0000345	0,00000671
Gldn	2,59977848	0,0001028	0,00002162
Slc16a5	2,60331977	0,0000000	0,00000000
Plch2	2,60565892	0,0000001	0,00000001
Cald1	2,60871046	0,0000000	0,00000000
Anxa1	2,60921343	0,0000000	0,00000000
Gm21818	2,61368842	0,0000334	0,00000648
Csf1	2,61668261	0,0000000	0,00000000
Hr	2,61854075	0,0000000	0,00000000
Sh3bgr	2,62079418	0,0000000	0,00000000
Mill2	2,6211226	0,0000000	0,00000000
Plaur	2,62534089	0,0000000	0,00000000
Xdh	2,63196356	0,0005367	0,00012914
2310043P16Rik	2,63631219	0,0000000	0,00000000
Adra1b	2,63724654	0,0000682	0,00001398
Ddit4l	2,64555788	0,0000000	0,00000000
Mrgprf	2,65094652	0,0000277	0,00000532
Steap2	2,65297483	0,0000000	0,00000000
Celf5	2,66186335	0,0000006	0,00000010
Mylk3	2,66227799	0,0000001	0,00000001
Stat2	2,66470369	0,0000000	0,00000000
Des	2,67028133	0,0000000	0,00000000
Mfge8	2,67071057	0,0000000	0,00000000
Upk3bl	2,67203286	0,0000258	0,00000491
Klf5	2,67243112	0,0000000	0,00000000
Pcdh17	2,68087951	0,0000000	0,00000000
Hspb6	2,6816573	0,0000000	0,00000000
Tgm2	2,68423918	0,0000000	0,00000000
Slc4a11	2,68470435	0,0000000	0,00000000
Eno3	2,68617141	0,0000000	0,00000000
Ccn1	2,6867464	0,0000000	0,00000000
Id1	2,68820925	0,0000000	0,00000000
Ndr4	2,69002336	0,0000000	0,00000000
Cmpk2	2,69016671	0,0000000	0,00000000
Fxd5	2,69320162	0,0000000	0,00000000
Serpib6b	2,69958146	0,0000000	0,00000000
Col19a1	2,70023823	0,0000512	0,00001027
4732419C18Rik	2,70534363	0,0000000	0,00000000
Lctl	2,71317874	0,0000000	0,00000000

Adora2a	2,7166581	0,0000000	0,00000000
Col8a1	2,71694374	0,0000216	0,00000406
Tfll1	2,7175328	0,0000000	0,00000000
Arnt2	2,71995518	0,0000000	0,00000000
Prph	2,72278366	0,0000000	0,00000000
Lrrc75b	2,72324145	0,0000000	0,00000000
Fos	2,7234784	0,0000000	0,00000000
Scn1b	2,726054	0,0000000	0,00000000
Lgr6	2,72770603	0,0000000	0,00000000
Fat2	2,73558174	0,0000199	0,00000371
Irgm1	2,74061177	0,0000000	0,00000000
Pcdhb14	2,74190372	0,0000000	0,00000000
G730013B05Rik	2,74597524	0,0000010	0,00000016
Arl4d	2,75102501	0,0000000	0,00000000
Map1a	2,75610389	0,0000000	0,00000000
Vdr	2,75645869	0,0000000	0,00000000
Clea2	2,76647098	0,0000171	0,00000317
Rgs4	2,77288923	0,0000135	0,00000245
Ifi211	2,774543	0,0000168	0,00000311
Pdgfa	2,78031101	0,0000000	0,00000000
Frmd4b	2,78428395	0,0000000	0,00000000
Apobr	2,78648747	0,0000000	0,00000000
Rasa4	2,79193483	0,0000000	0,00000000
Pdk2	2,79438907	0,0000000	0,00000000
Mgst2	2,79442181	0,0000001	0,00000001
Mpeg1	2,79486592	0,0000155	0,00000285
Bmf	2,79988967	0,0000000	0,00000000
Pik3r5	2,80364001	0,0000136	0,00000249
Sucnr1	2,80372169	0,0000011	0,00000017
Rims1	2,8080645	0,0000001	0,00000001
Gm16010	2,80839193	0,0000000	0,00000000
Serpine2	2,81054055	0,0000000	0,00000000
Lhfp	2,81469306	0,0000000	0,00000000
Galnt18	2,8258757	0,0000110	0,00000199
Lgals3bp	2,83611803	0,0000000	0,00000000
Pla1a	2,83627058	0,0002634	0,00005955
Apod	2,84094507	0,0000000	0,00000000
Gm43197	2,84115383	0,0000000	0,00000000
Gm9887	2,84580407	0,0000000	0,00000000
Itga3	2,84623325	0,0000000	0,00000000
Mmp19	2,85480223	0,0000001	0,00000001
Myh3	2,85611947	0,0000000	0,00000000

Tfec	2,85617318	0,0000000	0,00000000
Col18a1	2,86894139	0,0000000	0,00000000
Fcgr4	2,87398346	0,0000247	0,00000470
Hrct1	2,88003486	0,0000000	0,00000000
Epha4	2,88443935	0,0000000	0,00000000
My19	2,88675844	0,0000000	0,00000000
Serp1b1b	2,89143766	0,0000096	0,00000172
Cd248	2,89733329	0,0000000	0,00000000
Pcdhb10	2,89756587	0,0000000	0,00000000
Pld2	2,90666799	0,0000000	0,00000000
Tmem106a	2,91142346	0,0000000	0,00000000
Pcyt1b	2,91716487	0,0000000	0,00000000
Aox4	2,91739745	0,0000090	0,00000161
Dmpk	2,91766442	0,0000000	0,00000000
Fbxo2	2,92733254	0,0000000	0,00000000
Dnm3	2,92755848	0,0000000	0,00000000
Rnf150	2,92796854	0,0000000	0,00000000
Ptgs1	2,93196816	0,0000000	0,00000000
6330403L08Rik	2,93970008	0,0000000	0,00000000
Smtnl1	2,94932291	0,0000001	0,00000002
Uba7	2,95255961	0,0000000	0,00000000
Lgals3	2,95337322	0,0000000	0,00000000
Parp8	2,95626286	0,0000000	0,00000000
Hfm1	2,95637991	0,0000072	0,00000127
Trim25	2,95668963	0,0000000	0,00000000
Folr1	2,95762794	0,0000000	0,00000000
Me3	2,96061451	0,0000000	0,00000000
Gm6556	2,96163532	0,0000000	0,00000000
Kctd11	2,96237918	0,0000000	0,00000000
Gm16325	2,9660451	0,0000000	0,00000000
Slc41a2	2,96988352	0,0000000	0,00000000
Gm15640	2,97330382	0,0000000	0,00000000
Plscr2	2,97767826	0,0000000	0,00000000
Nfam1	2,98192788	0,0000060	0,00000104
Kcnb1	2,98401664	0,0000000	0,00000000
Nmb	2,99316162	0,0000000	0,00000000
Gata3	2,99972023	0,0000000	0,00000000
Atp2a3	3,00089568	0,0001105	0,00002336
H2-T23	3,00370311	0,0000000	0,00000000
Thbs1	3,01036692	0,0000000	0,00000000
Slc22a23	3,01817581	0,0000000	0,00000000
Dchs2	3,01866987	0,0000001	0,00000001

Irf5	3,02464555	0,0000000	0,00000000
Cadm2	3,02917133	0,0000000	0,00000000
Grb10	3,03416195	0,0001295	0,00002772
Scn3b	3,03452607	0,0000000	0,00000000
Gm20559	3,04057018	0,0000000	0,00000000
Ccn3	3,04323428	0,0000003	0,00000005
Fn1	3,05774849	0,0000000	0,00000000
Myl1	3,0589247	0,0000077	0,00000136
Spef11	3,06813228	0,0000045	0,00000078
Gm7893	3,07217263	0,0000034	0,00000058
Igdcc4	3,0747407	0,0000000	0,00000000
Gm17501	3,07691121	0,0000000	0,00000000
Tmem151a	3,07881464	0,0000000	0,00000000
Nppb	3,08042347	0,0000000	0,00000000
Slc27a1	3,08262198	0,0000000	0,00000000
Sema3e	3,08922703	0,0000000	0,00000000
S100a13	3,09019088	0,0000000	0,00000000
Kcnk2	3,09898397	0,0000000	0,00000000
Gm26797	3,0994878	0,0000000	0,00000000
Sqor	3,10195861	0,0001040	0,00002189
Psmb8	3,11306855	0,0000039	0,00000066
Ppof1	3,12521966	0,0000937	0,00001961
Acsbg1	3,12928048	0,0000000	0,00000000
Prr5l	3,13030633	0,0000000	0,00000000
2310008N11Rik	3,13439544	0,0000035	0,00000060
Akap12	3,13518405	0,0000000	0,00000000
Ptn	3,13738006	0,0000920	0,00001925
Postn	3,14106776	0,0000000	0,00000000
Irag1	3,1415434	0,0000000	0,00000000
Tnn	3,1438506	0,0000032	0,00000053
Lama3	3,14716797	0,0000051	0,00000087
Ace	3,14960826	0,0000000	0,00000000
Hmcn2	3,16079393	0,0000000	0,00000000
Gsta4	3,16222915	0,0000000	0,00000000
Prkag3	3,16557483	0,0000030	0,00000050
Edil3	3,16708863	0,0000000	0,00000000
Oasl1	3,16774858	0,0000000	0,00000000
1700007K13Rik	3,16961543	0,0000000	0,00000000
Acap1	3,17139233	0,0000000	0,00000000
Lamb1	3,17334302	0,0000000	0,00000000
Gm42765	3,17641428	0,0000030	0,00000049
Ttc9	3,17751903	0,0000000	0,00000000

Parp10	3,18238426	0,0000000	0,00000000
Ifi47	3,18641291	0,0000000	0,00000000
Slc17a8	3,18870286	0,0000000	0,00000000
Cpz	3,18938315	0,0000000	0,00000000
Tap2	3,19531853	0,0000000	0,00000000
Adcyap1r1	3,20002892	0,0000017	0,00000028
Samd9l	3,20104391	0,0000000	0,00000000
Tapbp	3,21262175	0,0000000	0,00000000
Sp9	3,22000972	0,0000000	0,00000000
Ube2l6	3,22039102	0,0000000	0,00000000
Tnfrsf22	3,22608948	0,0000000	0,00000000
Helz2	3,22944615	0,0000000	0,00000000
Lst1	3,23074126	0,0000000	0,00000000
Myof	3,23154279	0,0000000	0,00000000
Ier5l	3,23234759	0,0000000	0,00000000
Sgms2	3,23738494	0,0000000	0,00000000
4930417H01Rik	3,23788151	0,0000023	0,00000037
Tspan2	3,24361907	0,0000000	0,00000000
S100a7a	3,24870893	0,0000017	0,00000027
Grhl3	3,24908847	0,0000000	0,00000000
Nmnat2	3,25242712	0,0000000	0,00000000
0610012D04Rik	3,2607123	0,0000000	0,00000000
Bst2	3,26199203	0,0000000	0,00000000
Lgals7	3,26748407	0,0000003	0,00000004
Akap3	3,27550562	0,0000024	0,00000039
S100a3	3,27602685	0,0000000	0,00000001
Igf2	3,2831933	0,0000014	0,00000022
Nlrp10	3,28878592	0,0000000	0,00000000
Cdsn	3,29376801	0,0000000	0,00000000
Corin	3,29698906	0,0000000	0,00000000
Mdga1	3,30003467	0,0000002	0,00000003
Padi3	3,31027046	0,0000002	0,00000002
Ggt1	3,31084894	0,0000000	0,00000000
Rnase4	3,31375567	0,0000000	0,00000000
Rab11fip5	3,31567627	0,0000000	0,00000000
Nlrc3	3,32307612	0,0000000	0,00000000
Sertad4	3,32531507	0,0000000	0,00000000
Notch1	3,33034803	0,0000000	0,00000000
Irf9	3,34330996	0,0000000	0,00000000
Nlrc5	3,35012438	0,0000000	0,00000000
Serpina3n	3,35235632	0,0000001	0,00000002
Fblim1	3,35400629	0,0000000	0,00000000

Hcfc1r1	3,36317482	0,0000000	0,00000000
Artn	3,36941709	0,0000000	0,00000000
Lmod1	3,37448008	0,0000000	0,00000000
Oasl2	3,37455711	0,0000000	0,00000000
Pkhd1	3,37586603	0,0000000	0,00000000
Ltbp1	3,37988218	0,0000000	0,00000000
Usp17ld	3,38871853	0,0000364	0,00000712
Cav1	3,39093826	0,0000000	0,00000000
Kcnh2	3,39353226	0,0000000	0,00000000
Palld	3,4015898	0,0000000	0,00000000
Ccn2	3,4068118	0,0000000	0,00000000
Cd34	3,4096655	0,0000000	0,00000000
9330175E14Rik	3,41366524	0,0000000	0,00000000
Cd38	3,42410259	0,0000000	0,00000000
Robo3	3,42821319	0,0000000	0,00000000
Hspa1b	3,42889793	0,0000000	0,00000000
Apobec1	3,43189033	0,0000000	0,00000000
Atp1b2	3,44205057	0,0000000	0,00000000
Gsta3	3,44521772	0,0000000	0,00000000
C1s1	3,4540066	0,0000000	0,00000000
Slc16a11	3,46297201	0,0000000	0,00000000
Adh7	3,4636076	0,0000000	0,00000000
Galnt15	3,46470117	0,0000007	0,00000011
Plk2	3,46974525	0,0000000	0,00000000
Sifn8	3,47423988	0,0000269	0,00000514
Dhx58	3,47719225	0,0000000	0,00000000
Pramel19	3,47847877	0,0000269	0,00000515
Btg2	3,47975584	0,0000000	0,00000000
4930461G14Rik	3,48274365	0,0000007	0,00000011
Ak1	3,48732787	0,0000000	0,00000000
Trim34a	3,4927983	0,0000000	0,00000000
Tmprss11f	3,50184159	0,0000000	0,00000000
Pdgfb	3,50539838	0,0000000	0,00000000
Foxn1	3,51201868	0,0000218	0,00000411
Ccdc180	3,51537322	0,0000006	0,00000009
Zbp1	3,52171611	0,0000005	0,00000008
Serpib1a	3,53136119	0,0000000	0,00000000
Lif	3,53286167	0,0000000	0,00000000
Il12rb1	3,54547355	0,0000000	0,00000000
Gm15767	3,54571007	0,0000006	0,00000009
Ldb3	3,5474811	0,0000000	0,00000000
Spn	3,5505323	0,0000000	0,00000000

Ppm1e	3,55147322	0,0000000	0,00000000
Nupr1	3,5541424	0,0000000	0,00000000
Rin1	3,55563316	0,0000000	0,00000000
Gm15228	3,55670617	0,0000005	0,00000008
Trim12a	3,56163454	0,0000000	0,00000000
Cst3	3,56469586	0,0000000	0,00000000
Nckap5	3,57196083	0,0000000	0,00000000
Gdpd2	3,57284597	0,0000000	0,00000000
Rnf213	3,57737315	0,0000000	0,00000000
Col10a1	3,58000396	0,0000000	0,00000000
Tnnt2	3,58068119	0,0000000	0,00000000
Efhd1	3,59333022	0,0000000	0,00000000
Usp17la	3,61261257	0,0000004	0,00000006
Tnxb	3,61834307	0,0000000	0,00000000
Ccdc9b	3,62355495	0,0000000	0,00000000
Nqo1	3,63321988	0,0000000	0,00000000
Gm2065	3,63437788	0,0000000	0,00000000
Ptpn5	3,65695135	0,0000003	0,00000005
Plekha6	3,66769677	0,0000000	0,00000000
Itga8	3,67772269	0,0000000	0,00000000
Nell2	3,68820435	0,0000001	0,00000002
Cobl	3,69733617	0,0000003	0,00000004
Ifit1bl2	3,7428771	0,0000102	0,00000184
Cfap70	3,74966521	0,0000000	0,00000000
Ifi35	3,76451817	0,0000000	0,00000000
Serpib9	3,77137219	0,0000000	0,00000000
Parp12	3,79995505	0,0000000	0,00000000
Parp9	3,8046578	0,0000000	0,00000000
H2-K1	3,81858347	0,0000000	0,00000000
Lrig1	3,82589172	0,0000000	0,00000000
Tap1	3,83030603	0,0000000	0,00000000
Fbn1	3,85114136	0,0000064	0,00000112
Stat1	3,85927604	0,0000000	0,00000000
Prl2c5	3,87047593	0,0000000	0,00000000
Iqsec3	3,87331414	0,0000060	0,00000105
Tmem40	3,87979958	0,0000000	0,00000000
Prkg2	3,88275792	0,0000000	0,00000000
Wnt9a	3,8900451	0,0000000	0,00000001
Gpr176	3,8923745	0,0000000	0,00000000
Krt7	3,90427006	0,0000054	0,00000094
Ifi27	3,91227526	0,0000000	0,00000000
Timp4	3,91948685	0,0000000	0,00000000

Tgtp2	3,92772311	0,0000001	0,00000001
Fas	3,94091531	0,0000001	0,00000001
Egr1	3,9528833	0,0000000	0,00000000
Hspb1	3,95617505	0,0000000	0,00000000
Rsad2	3,95763586	0,0000000	0,00000000
Usp17le	3,97058788	0,0000041	0,00000070
Synpo2	3,97235165	0,0000000	0,00000000
Oas1b	3,97275948	0,0000000	0,00000000
Ndrp2	3,97773921	0,0000000	0,00000000
Actg2	3,99734185	0,0000000	0,00000000
Prl2c2	4,00509822	0,0000000	0,00000000
Kitl	4,03355247	0,0000000	0,00000000
Otog	4,05628075	0,0000000	0,00000000
Car5b	4,06098315	0,0000000	0,00000000
Ifih1	4,06403621	0,0000000	0,00000000
Pgf	4,10457395	0,0000000	0,00000000
Tmem179	4,11046593	0,0000000	0,00000000
Vgf	4,13779807	0,0000000	0,00000000
Klhdc8a	4,14273464	0,0000000	0,00000000
Plb1	4,15780134	0,0000000	0,00000000
Gm20658	4,15908247	0,0000000	0,00000000
Fbln2	4,1713756	0,0000000	0,00000000
Eda2r	4,19516565	0,0000000	0,00000000
Serping1	4,20782289	0,0000000	0,00000000
Chrn1	4,20843519	0,0000000	0,00000000
Vat1l	4,21854713	0,0000000	0,00000000
Gm40038	4,23431821	0,0000000	0,00000000
Mx2	4,24995465	0,0000000	0,00000000
Axl	4,30423295	0,0000000	0,00000000
Slit1	4,30747501	0,0000000	0,00000000
Phf11d	4,32081259	0,0000010	0,00000015
Ifit3b	4,3446813	0,0000000	0,00000000
Sp100	4,34905847	0,0000000	0,00000000
Ecm1	4,35611429	0,0000000	0,00000000
Ifit3	4,42112797	0,0000000	0,00000000
Trim12c	4,42254757	0,0000000	0,00000000
Parp14	4,43081677	0,0000000	0,00000000
Trim30d	4,44049241	0,0000006	0,00000009
Marchf10	4,45455384	0,0000000	0,00000000
Ifi44	4,45650693	0,0000005	0,00000008
Gbp2	4,45668972	0,0000000	0,00000000
Oas1a	4,46174809	0,0000000	0,00000000

Cacna1a	4,47916432	0,0000000	0,00000000
Uroc1	4,48634371	0,0000000	0,00000000
Epha2	4,49689807	0,0000000	0,00000000
Ptpn7	4,49824623	0,0000005	0,00000007
Ifit1	4,51355811	0,0000000	0,00000000
S100a4	4,54102047	0,0000000	0,00000000
Slc18a1	4,57379479	0,0000000	0,00000000
Clu	4,60528406	0,0000000	0,00000000
Igfbp7	4,61250747	0,0000000	0,00000000
Lrrc15	4,62823665	0,0000000	0,00000000
Isg20	4,6850056	0,0000000	0,00000000
Gbp7	4,70158864	0,0000000	0,00000000
Dglucy	4,70940852	0,0000000	0,00000000
Gm19705	4,72903606	0,0000000	0,00000000
Dysf	4,75361531	0,0000000	0,00000000
Ces2e	4,75536694	0,0000002	0,00000002
Pkp3	4,77934965	0,0000000	0,00000000
Col6a1	4,80958225	0,0000000	0,00000000
Ifitm3	4,816943	0,0000000	0,00000000
Oas3	4,83072373	0,0000000	0,00000000
Ntn4	4,84610051	0,0000000	0,00000000
Cd80	4,87441879	0,0000000	0,00000000
Ddx60	4,89702697	0,0000000	0,00000000
Cemip	4,95054383	0,0000000	0,00000000
Pcdh12	4,96863415	0,0000000	0,00000000
Oas1g	4,9741035	0,0000000	0,00000000
Prss23	4,97645104	0,0000000	0,00000000
Ddx58	5,06649918	0,0000000	0,00000000
Dnase1l3	5,11913562	0,0000000	0,00000000
Syn2	5,19375074	0,0000000	0,00000000
Wincr1	5,19743476	0,0000000	0,00000000
Ifi204	5,19934001	0,0000000	0,00000000
Gbp3	5,27289901	0,0000000	0,00000000
S100a6	5,31854963	0,0000000	0,00000000
Col1a1	5,34757117	0,0000000	0,00000000
Slc6a12	5,35676257	0,0000000	0,00000000
Hspb7	5,38528418	0,0000000	0,00000000
Tgfb1	5,39576872	0,0000000	0,00000000
9530053A07Rik	5,42628483	0,0000000	0,00000000
Serp1nb2	5,43400334	0,0000000	0,00000000
Usp18	5,52858295	0,0000000	0,00000000
Xaf1	5,74293178	0,0000000	0,00000000

Trim30a	5,82596206	0,0000000	0,00000000
Folr2	5,86887308	0,0000000	0,00000000
Irf7	5,90694971	0,0000000	0,00000000
Ccdc80	5,9929708	0,0000000	0,00000000
Irgm2	6,04934234	0,0000000	0,00000000
Rtp4	6,0891282	0,0000000	0,00000000
Oas2	6,12990547	0,0000000	0,00000000
Fgd3	6,3064106	0,0000000	0,00000000
Serpine1	6,32353614	0,0000000	0,00000000
Isg15	6,4068244	0,0000000	0,00000000
Igtp	6,67842264	0,0000000	0,00000000
Il11	6,70096026	0,0000000	0,00000000
Sncg	7,35680016	0,0000000	0,00000000
Tnfrsf23	7,4369703	0,0000000	0,00000000
Apol9a	7,52919892	0,0000000	0,00000000
Serpib9b	7,61596295	0,0000000	0,00000000
Apol9b	7,87800091	0,0000000	0,00000000
Lamc2	7,90218155	0,0000000	0,00000000

¹ MO4 cells exposed to 1 μ M CM-272 for 24 hours were subjected to RNA sequencing. Gene expression counts were processed using DESeq2 R-package to render normalized expression counts and report on log₂-fold changes with corresponding *p*-values and *q*-values. Listed genes comply with following cut-offs: *p*-value <0.0005, *q*-value <0.002, and |log₂-fold change| >1.

² log₂-fold change represents CM-272 condition relative to vehicle condition.

Table S2 – RNA sequencing of CM-272-treated MO4 cells *in vitro* - significantly changed gene sets. ¹

Gene set name	# genes	NES	FDR-value	p-value
Epigenetic regulation of gene expression and protein stability				
<i>Golgi to ER transport</i>				
REACTOME_GOLGI_TO_ER_RETROGRADE_TRANSPORT	125	-1.9019	0.0025	0.0
REACTOME_COPI_DEPENDENT_GOLGI_TO_ERRETROGRADE_TRAFFIC	91	-2.13	0.0001	0.0
REACTOME_KINESINS	53	-2.2377	0.0	0.0
REACTOME_MHC_CLASS_II_ANTIGEN_PRESENTATION	112	-1.4152	0.0914	0.0
REACTOME_INTRA_GOLGI_AND_RETROGRADE_GOLGI_TO_ER_TRAFFIC	191	-1.4671	0.0688	0.0
REACTOME_FACTORS_INVOLVED_IN_MEGAKARYOCYTE_DEVELOPMENT_AND_PLATELET_PRODUCTION	138	-1.9897	0.0009	0.0
REACTOME_RHO_GTPASES_ACTIVATE_IQGAPS	26	-1.7509	0.0099	0.0
<i>DNA modifications</i>				
REACTOME_DNA_METHYLATION	27	-2.4511	0.0	0.0
REACTOME_POSITIVE_EPIGENETIC_REGULATION_OF_RRNA_EXPRESSION	68	-2.3641	0.0	0.0
REACTOME_PRC2_METHYLATES_HISTONES_AND_DNA	35	-2.5158	0.0	0.0
REACTOME_EPIGENETIC_REGULATION_OF_GENE_EXPRESSION	109	-2.4318	0.0	0.0
<i>Histone modifications</i>				
WP_HISTONE_MODIFICATIONS	44	-1.9623	0.0012	0.0
REACTOME_PKMTS_METHYLATE_HISTONE_LYSINES	49	-2.2776	0.0	0.0
REACTOME_RMTS_METHYLATE_HISTONE_ARGININES	46	-2.0037	0.0008	0.0
REACTOME_CHROMATIN_MODIFYING_ENZYMES	230	-2.0504	0.0004	0.0
REACTOME_HATS_ACETYLATE_HISTONES	99	-2.0788	0.0002	0.0
REACTOME_HDACS_DEACETYLATE_HISTONES	51	-2.1175	0.0001	0.0
<i>mRNA processing</i>				
REACTOME_PROCESSING_OF_CAPPED_INTRONLESS_PRE_MRNA	28	-2.1348	0.0001	0.0
REACTOME_PROCESSING_OF_CAPPED_INTRONCONTAINING_PRE_MRNA	237	-2.8765	0.0	0.0
REACTOME_MRNA_SPLICING	187	-2.585	0.0	0.0
KEGG_SPLICEOSOME	121	-2.3184	0.0	0.0
REACTOME_MRNA_SPLICING_MINOR_PATHWAY	52	-1.9737	0.0011	0.0
WP_MRNA_PROCESSING	125	-2.633	0.0	0.0
REACTOME_RNA_POLYMERASE_II_TRANSCRIPTION_TERMINATION	65	-2.4017	0.0	0.0
<i>Pyrimidine metabolism</i>				
KEGG_PYRIMIDINE_METABOLISM	94	-1.8542	0.0004	0.0
WP_PYRIMIDINE_METABOLISM	81	-1.7382	0.0109	0.0
<i>RNA degradation</i>				
REACTOME_DEADENYLATION_OF_MRNA	25	-1.9513	0.0014	0.0

REACTOME_DEADENYLATION_DEPENDENT_MRNA_DECAY	55	-2.245	0.0	0.0
KEGG_RNA_DEGRADATION	56	-1.8081	0.0064	0.0
<i>Sumoylation of proteins</i>				
REACTOME_GLUCOSE_METABOLISM	89	-1.4631	0.0702	0.0
REACTOME_HCMV_LATE_EVENTS	68	-2.3627	0.0	0.0
REACTOME_SNRNP_ASSEMBLY	51	-2.6013	0.0	0.0
REACTOME_HIV_LIFE_CYCLE	141	-1.932	0.0018	0.0
REACTOME_TRANSCRIPTIONAL_REGULATION_BY_SMALL_RNAS	67	-2.5892	0.0	0.0
REACTOME_INTERACTIONS_OF_VPR_WITH_HOST_CELLULAR_PROTEINS	34	-2.3605	0.0	0.0
REACTOME_EXPORT_OF_VIRAL_RIBONUCLEOPROTEINS_FROM_NUCLEUS	30	-2.3538	0.0	0.0
REACTOME_INTERACTIONS_OF_REV_WITH_HOST_CELLULAR_PROTEINS	35	-2.4247	0.0	0.0
REACTOME_HCMV_INFECTION	108	-2.2718	0.0	0.0
REACTOME_GLYCOLYSIS	69	-1.7334	0.0113	0.0
REACTOME_TRNA_PROCESSING	107	-2.0594	0.0003	0.0
REACTOME_SUMOYLATION_OF_SUMOYLATION_PROTEINS	33	-2.4211	0.0	0.0
REACTOME_TRANSPORT_OF_MATURE_MRNAS_DERIVED_FROM_INTRONLESS_TRANSCRIPTS	41	-2.4636	0.0	0.0
REACTOME_TRNA_PROCESSING_IN_THE_NUCLEUS	57	-2.3999	0.0	0.0
REACTOME_SUMOYLATION_OF_RNA_BINDING_PROTEINS	44	-2.3122	0.0	0.0
REACTOME_SUMOYLATION_OF_DNA_DAMAGE_RESPONSE_AND_REPAIR_PROTEINS	73	-2.131	0.0001	0.0
REACTOME_POSTMITOTIC_NUCLEAR_PORE_COMPLEX_NPC_REFORMATION	26	-2.369	0.0	0.0
REACTOME_SUMOYLATION_OF_DNA_REPLICATION_PROTEINS	44	-2.5818	0.0	0.0
REACTOME_REGULATION_OF_HSF1_MEDIATED_HEAT_SHOCK_RESPONSE	77	-1.6503	0.0207	0.0
REACTOME_VIRAL_MESSENGER_RNA_SYNTHESIS	42	-2.2042	0.0	0.0
REACTOME_NUCLEAR_PORE_COMPLEX_NPC_DISASSEMBLY	34	-2.5401	0.0	0.0
REACTOME_SUMOYLATION	169	-2.0821	0.0002	0.0
REACTOME_NUCLEAR_IMPORT_OF_REV_PROTEIN	32	-2.4397	0.0	0.0
REACTOME_TRANSPORT_OF_THE_SLBP_DEPENDENT_MATURE_MRNA	34	-2.4215	0.0	0.0
REACTOME_NUCLEAR_ENVELOPE_BREAKDOWN	51	-2.3189	0.0	0.0
REACTOME_NS1_MEDIATED_EFFECTS_ON_HOST_PATHWAYS	38	-1.9847	0.0009	0.0
REACTOME_HCMV_EARLY_EVENTS	87	-2.4343	0.0	0.0
REACTOME_SUMOYLATION_OF_UBIQUITINYLATED_PROTEINS	37	-2.126	0.0001	0.0
REACTOME_GENE_SILENCING_BY_RNA	98	-2.2526	0.0	0.0
REACTOME_TRANSPORT_OF_MATURE_TRANSCRIPT_TO_CYTOPLASM	80	-2.6262	0.0	0.0
REACTOME_SUMOYLATION_OF_CHROMATIN_ORGANIZATION_PROTEINS	55	-2.3872	0.0	0.0

REACTOME_REGULATION_OF_GLUCOKINASE_BY_GLUCOKINASE_REGULATORY_PROTEIN	30	-2.2865	0.0	0.0
--	----	---------	-----	-----

Immune recognition and responses

Antigen presentation

KEGG_ANTIGEN_PROCESSING_AND_PRESENTATION	53	1.623	0.0339	0.0023
REACTOME_ANTIGEN_PRESENTATION_FOLDING_ASSEMBLY_AND_PEPTIDE_LOADING_OF_CLASS_I_MHC	21	1.6003	0.0408	0.0027

Autoimmune signaling

KEGG_ALLOGRAFT_REJECTION	27	1.8458	0.0033	0.0
KEGG_VIRAL_MYOCARDITIS	60	1.6186	0.0349	0.0
WP_ALLOGRAFT_REJECTION	77	1.6921	0.0185	0.0011
KEGG_TYPE_I_DIABETES_MELLITUS	33	1.743	0.0108	0.0
KEGG_GRAFT_VERSUS_HOST_DISEASE	26	1.7866	0.0067	0.0
KEGG_AUTOIMMUNE_THYROID_DISEASE	31	1.8228	0.0041	0.0

Complement system

REACTOME_COMPLEMENT_CASCADE	58	1.6089	0.0375	0.0023
REACTOME_FORMATION_OF_FIBRIN_CLOT_CLOTTING_CASCADE	37	1.6206	0.0344	0.0025
WP_COMPLEMENT_AND_COAGULATION_CASCADES	55	1.6055	0.0391	0.0012
KEGG_COMPLEMENT_AND_COAGULATION_CASCADES	64	1.7139	0.0146	0.0
WP_HUMAN_COMPLEMENT_SYSTEM	89	1.8625	0.0022	0.0

Inflammatory response

REACTOME_INTERLEUKIN_10_SIGNALING	42	1.9482	0.0002	0.0
WP_CYTOKINES_AND_INFLAMMATORY_RESPONSE	26	1.7504	0.0105	0.0013
KEGG_JAK_STAT_SIGNALING_PATHWAY	138	1.5014	0.0926	0.0011
WP_DEVELOPMENT_AND_HETEROGENEITY_OF_THE_ILC_FAMILY	32	1.8309	0.0037	0.0
KEGG_HEMATOPOIETIC_CELL_LINEAGE	78	1.9497	0.0003	0.0
KEGG_CYTOKINE_CYTOKINE_RECEPTOR_INTERACTION	231	1.7192	0.0136	0.0

Interferon signaling

WP_TYPE_II_INTERFERON_SIGNALING_IFNG	34	1.8623	0.0021	0.0
WP_THE_HUMAN_IMMUNE_RESPONSE_TO_TUBERCULOSIS	22	2.0883	0.0	0.0
REACTOME_INTERFERON_GAMMA_SIGNALING	76	2.0867	0.0	0.0
REACTOME_INTERFERON_ALPHA_BETA_SIGNALING	52	2.3095	0.0	0.0
REACTOME_INTERFERON_SIGNALING	166	1.9177	0.0009	0.0

Interleukin pathways

PID_IL12_2PATHWAY	61	1.6012	0.0406	0.0
PID_IL27_PATHWAY	26	1.5955	0.0418	0.0
REACTOME_INTERLEUKIN_4_AND_INTERLEUKIN_13_SIGNALING	109	1.8759	0.0021	0.0
PID_IL23_PATHWAY	37	1.7323	0.0112	0.0039

TGF- β signaling

WP_HYPOTHESIZED_PATHWAYS_IN_PATHOGENESIS_OF_CARDIOVASCULAR_DISEASE	24	1.7069	0.0153	0.0013
WP_TGFBETA_RECEPTOR_SIGNALING	54	1.6506	0.0264	0.0

WP_TGFBETA_RECEPTOR_SIGNALLING_IN_SKELETAL_DYSPLASIAS	58	1.6447	0.0276	0.0
---	----	--------	--------	-----

Toll-like receptor signaling

KEGG_TOLL_LIKE_RECEPTOR_SIGNALING_PATHWAY	88	1.5516	0.0661	0.0022
WP_REGULATION_OF_TOLLLIKE_RECEPTOR_SIGNALING_PATHWAY	128	1.5392	0.0716	0.0
WP_TOLLLIKE_RECEPTOR_SIGNALING_PATHWAY	90	1.5144	0.084	0.0022
REACTOME_TRAF6_MEDIATED_IRF7_ACTIVATION	18	1.6801	0.0209	0.0027
WP_TOLLLIKE_RECEPTOR_SIGNALING_RELATED_TO_MYD88	31	1.6168	0.0349	0.0025
WP_SARS_CORONAVIRUS_AND_INNATE_IMMUNITY	20	1.7346	0.0109	0.0027
WP_MIRNAS_INVOLVEMENT_IN_THE_IMMUNE_RESPONSE_IN_SEPSIS	60	1.5995	0.0406	0.0023
WP_HOSTPATHOGEN_INTERACTION_OF_HUMAN_CORONA_VIRUSES_INTERFERON_INDUCTION	33	1.7904	0.0065	0.0
WP_TYPE_I_INTERFERON_INDUCTION_AND_SIGNALING_DURING_SARSCOV2_INFECTION	29	1.7061	0.0153	0.0026
WP_FIBRIN_COMPLEMENT_RECEPTOR_3_SIGNALING_PATHWAY	41	1.6355	0.0293	0.0012

Carcinogenesis-related pathways

Cell cycle

REACTOME_RHO_GTPASE_EFFECTORS	274	-2.6005	0.0	0.0
REACTOME_CELL_CYCLE_CHECKPOINTS	265	-3.1369	0.0	0.0
REACTOME_ANCHORING_OF_THE_BASAL_BODY_TO_THE_PLASMA_MEMBRANE	96	-2.4938	0.0	0.0
REACTOME_RECRUITMENT_OF_NUMA_TO_MITOTIC_CENTROSOMES	87	-2.4848	0.0	0.0
REACTOME_INHIBITION_OF_DNA_RECOMBINATION_AT_TELOMERE	38	-2.1621	0.0001	0.0
REACTOME_INHIBITION_OF_THE_PROTEOLYTIC_ACTIVITY_OF_APC_C_REQUIRED_FOR_THE_ONSET_OF_ANAPHASE_BY_MITOTIC_SPINDLE_CHECKPOINT_COMPONENTS	21	-2.0011	0.0008	0.0
REACTOME_CYCLIN_A_B1_B2_ASSOCIATED_EVENTS_DURING_G2_M_TRANSITION	25	-2.6381	0.0	0.0
REACTOME_RUNX1_REGULATES_GENES_INVOLVED_IN_MEGAKARYOCYTE_DIFFERENTIATION_AND_PLATELET_FUNCTION	59	-1.6988	0.0145	0.0
PID_E2F_PATHWAY	72	-2.2036	0.0	0.0
REACTOME_INITIATION_OF_NUCLEAR_ENVELOPE_REFORMATION	19	-2.069	0.0003	0.0
REACTOME_FORMATION_OF_THE_BETA_CATENIN_TCF_TRANSACTIVATING_COMPLEX	53	-2.2427	0.0	0.0
WP_DNA_IRDOUBLE_STRAND_BREAKS_DSBS_AND_CELLULAR_RESPONSE_VIA_ATM	55	-2.5294	0.0	0.0
REACTOME_TELOMERE_C_STRAND_LAGGING_STRAND_SYNTHESIS	33	-2.6074	0.0	0.0
PID_ATM_PATHWAY	34	-2.2806	0.0	0.0
REACTOME_REPRODUCTION	104	-2.3235	0.0	0.0
REACTOME_ORGANELLE_BIOGENESIS_AND_MAINTENANCE	288	-1.7125	0.0132	0.0

REACTOME_SENESCENCE_ASSOCIATED_SECRETORY PHENOTYPE SASP	72	-1.9527	0.0014	0.0
REACTOME_POLYMERASE_SWITCHING_ON_THE_C STRAND OF THE TELOMERE	25	-2.5368	0.0	0.0
REACTOME_B_WICH_COMPLEX_POSITIVELY_REGULATES RRNA EXPRESSION	53	-2.2701	0.0	0.0
REACTOME_MITOTIC_G2_G2_M PHASES	191	-2.4314	0.0	0.0
REACTOME_ACTIVATION_OF_ANTERIOR_HOX_GENES_IN_HINDBRAIN_DEVELOPMENT_DURING_EARLY EMBRYOGENESIS	84	-2.2113	0.0	0.0
REACTOME_CHROMOSOME_MAINTENANCE	109	-3.1124	0.0	0.0
REACTOME_TELOMERE_MAINTENANCE	83	-2.8198	0.0	0.0
PID_FANCONI_PATHWAY	46	-2.7261	0.0	0.0
REACTOME_TRANSLESION_SYNTHESIS_BY_Y_FAMILY DNA POLYMERASES_BYPASSES_LESIONS_ON DNA TEMPLATE	39	-1.7728	0.0083	0.0
REACTOME_ERCC6_CSB_AND_EHMT2_G9A_POSITIVELY REGULATE RRNA EXPRESSION	38	-2.4181	0.0	0.0
REACTOME_MITOTIC_PROPHASE	102	-2.6825	0.0	0.0
REACTOME_REGULATION_OF_TP53_ACTIVITY	158	-2.0434	0.0004	0.0
WP_RETINOBLASTOMA_GENE_IN_CANCER	86	-3.1195	0.0	0.0
REACTOME_CYCLIN_A_CDK2_ASSOCIATED_EVENTS AT S PHASE ENTRY	85	-1.5635	0.0371	0.0
REACTOME_G2_M DNA DAMAGE CHECKPOINT	70	-2.8504	0.0	0.0
REACTOME_NEGATIVE_EPIGENETIC_REGULATION OF RRNA EXPRESSION	70	-2.3514	0.0	0.0
REACTOME_RECRUITMENT_OF_MITOTIC_CENTROSOME PROTEINS AND COMPLEXES	78	-2.496	0.0	0.0
REACTOME_CONVERSION_FROM_APC_C_CDC20_TO APC C CDH1 IN LATE ANAPHASE	20	-1.8448	0.0044	0.0042
REACTOME_TERMINATION_OF_TRANSLESION_DNA SYNTHESIS	32	-1.7089	0.0134	0.0
PID_ATR_PATHWAY	39	-2.8735	0.0	0.0
REACTOME_TRANSCRIPTION_OF_E2F_TARGETS_UNDER NEGATIVE CONTROL BY P107_RBL1_AND_P130_RBL2 IN COMPLEX WITH HDAC1	16	-2.3997	0.0	0.0
KEGG_OOCYTE_MEIOSIS	107	-2.0208	0.0006	0.0
REACTOME_SEPARATION_OF_SISTER_CHROMATIDS	183	-2.8433	0.0	0.0
REACTOME_REGULATION_OF_TP53_ACTIVITY_THROUGH PHOSPHORYLATION	91	-2.2074	0.0	0.0
REACTOME_LAGGING_STRAND_SYNTHESIS	20	-2.6226	0.0	0.0
REACTOME_AURKA_ACTIVATION_BY_TPX2	71	-2.6781	0.0	0.0
PID_PLK1_PATHWAY	46	-2.9439	0.0	0.0
REACTOME_PHOSPHORYLATION_OF_THE_APC_C	20	-1.9603	0.0012	0.0
REACTOME_SWITCHING_OF_ORIGINS_TO_A_POST REPLICATIVE STATE	91	-2.054	0.0004	0.0
WP_DNA_IRDAMAGE_AND_CELLULAR_RESPONSE VIA ATR	80	-2.9654	0.0	0.0
REACTOME_G1_S_SPECIFIC_TRANSCRIPTION	28	-2.7196	0.0	0.0
REACTOME_DUAL_INCISION_IN_GG_NER	40	-2.3625	0.0	0.0
REACTOME_PROCESSIVE_SYNTHESIS_ON_THE_C_STRAND OF THE TELOMERE	18	-2.1099	0.0001	0.0

REACTOME_ACTIVATION_OF_ATR_IN_RESPONSE_TO_REPLICATION_STRESS	37	-2.8539	0.0	0.0
KEGG_DNA_REPLICATION	35	-2.9181	0.0	0.0
REACTOME_DUAL_INCISION_IN_TC_NER	63	-2.0551	0.0004	0.0
REACTOME_E2F_MEDIATED_REGULATION_OF_DNA_REPLICATION	22	-2.2966	0.0	0.0
REACTOME_TRANSCRIPTION_OF_E2F_TARGETS_UNDER_NEGATIVE_CONTROL_BY_DREAM_COMPLEX	19	-2.3834	0.0	0.0
KEGG_PROGESTERONE_MEDIATED_OOCYTE_MATURATION	83	-1.9003	0.0025	0.0
REACTOME_TRANSLESION_SYNTHESIS_BY_POLK	17	-2.0197	0.0006	0.0
REACTOME_TRANSLESION_SYNTHESIS_BY_POLH	19	-2.1091	0.0001	0.0
REACTOME_RNA_POLYMERASE_I_TRANSCRIPTION	72	-2.2326	0.0	0.0
WP_G1_TO_S_CELL_CYCLE_CONTROL	64	-2.4889	0.0	0.0
REACTOME_RHO_GTPASES_ACTIVATE_FORMINS	132	-3.0313	0.0	0.0
REACTOME_RESOLUTION_OF_AP_SITES_VIA_THE_MULTIPLE_NUCLEOTIDE_PATCH_REPLACEMENT_PATHWAY	24	-2.5118	0.0	0.0
REACTOME_DISEASES_OF_MITOTIC_CELL_CYCLE	36	-1.7759	0.0082	0.0
REACTOME_HDR_THROUGH_SINGLE_STRAND_ANNEALING_SSA	37	-2.5529	0.0	0.0
WP_DNA_MISMATCH_REPAIR	23	-2.5945	0.0	0.0
REACTOME_RESOLUTION_OF_D_LOOP_STRUCTURES	33	-2.4205	0.0	0.0
REACTOME_M_PHASE	364	-2.9423	0.0	0.0
REACTOME_DNA_DAMAGE_TELOMERE_STRESS_INDUCED_SENESCENCE	50	-2.3346	0.0	0.0
REACTOME_EXTENSION_OF_TELOMERES	50	-2.7375	0.0	0.0
REACTOME_G0_AND_EARLY_G1	27	-2.6346	0.0	0.0
REACTOME_PROCESSIVE_SYNTHESIS_ON_THE_LAGGING_STRAND	15	-2.4115	0.0	0.0
REACTOME_RESOLUTION_OF_ABASIC_SITES_AP_SITES	37	-2.5524	0.0	0.0
REACTOME_MITOTIC_G1_PHASE_AND_G1_S_TRANSITION	147	-2.7303	0.0	0.0
REACTOME_HDR_THROUGH_HOMOLOGOUS_RECOMBINATION_HRR	66	-2.7893	0.0	0.0
REACTOME_MEIOTIC_SYNAPSIS	49	-2.3809	0.0	0.0
REACTOME_MEIOSIS	79	-2.5991	0.0	0.0
REACTOME_POLO_LIKE_KINASE_MEDIATED_EVENTS	16	-2.49	0.0	0.0
REACTOME_ACTIVATION_OF_THE_PRE_REPLICATIVE_COMPLEX	32	-2.9215	0.0	0.0
REACTOME_RECOGNITION_AND_ASSOCIATION_OF_DNA_GLYCOSYLASE_WITH_SITE_CONTAINING_AN_AFFECTED_PURINE	26	-2.481	0.0	0.0
REACTOME_APC_CDC20_MEDIATED_DEGRADATION_OF_NEK2A	26	-2.1708	0.0001	0.0
REACTOME_SIRT1_NEGATIVELY_REGULATES_RRNA_EXPRESSION	30	-2.4826	0.0	0.0
REACTOME_OXIDATIVE_STRESS_INDUCED_SENESCENCE	87	-2.1904	0.0	0.0

REACTOME_G2_M_CHECKPOINTS	143	-2.7554	0.0	0.0
REACTOME_TRANSCRIPTIONAL_REGULATION_OF_GRANULOPŌIESIS	52	-2.2394	0.0	0.0
REACTOME_TRANSCRIPTION_COUPLED_NUCLEOTIDE_EXCISION_REPAIR_TC_NER	76	-2.1176	0.0001	0.0
REACTOME_CILIUM_ASSEMBLY	195	-1.8208	0.0058	0.0
KEGG_HOMOLOGOUS_RECOMBINATION	27	-2.5111	0.0	0.0
REACTOME_CYCLIN_D_ASSOCIATED_EVENTS_IN_G1	47	-1.7167	0.0129	0.0
REACTOME_NUCLEAR_ENVELOPE_NE_REASSEMBLY	67	-2.4833	0.0	0.0
REACTOME_MITOTIC_METAPHASE_AND_ANAPHASE	225	-2.9416	0.0	0.0
REACTOME_MITOTIC_PROMETAPHASE	193	-3.2758	0.0	0.0
REACTOME_APC_C_CDC20_MEDIATED_DEGRADATION_OF_CYCLIN_B	24	-2.0514	0.0004	0.0
WP_REGULATION_OF_SISTER_CHROMATID_SEPARATION_AT_THE_METAPHASEANAPHASE_TRANSITION	15	-2.1792	0.0001	0.0
WP_CELL_CYCLE	119	-2.5818	0.0	0.0
REACTOME_ASSEMBLY_OF_THE_PRE_REPLICATIVE_COMPLEX	68	-1.8755	0.0032	0.0
REACTOME_RESOLUTION_OF_SISTER_CHROMATID_COHESION	118	-3.3488	0.0	0.0
REACTOME_RHO_GTPASES_ACTIVATE_PKNS	53	-1.973	0.0011	0.0
REACTOME_CELLULAR_SENESCENCE	155	-2.1188	0.0001	0.0
REACTOME_FANCONI_ANEMIA_PATHWAY	37	-2.1185	0.0001	0.0
REACTOME_ESTROGEN_DEPENDENT_GENE_EXPRESSION	111	-1.7563	0.0094	0.0
KEGG_CELL_CYCLE	123	-2.63	0.0	0.0
REACTOME_CONDENSATION_OF_PROPHASE_CHROMOSOMES	35	-2.6805	0.0	0.0
REACTOME_RUNX1_REGULATES_TRANSCRIPTION_OF_GENES_INVOLVED_IN_DIFFERENTIATION_OF_HSCS	92	-1.5984	0.0296	0.0
REACTOME_DNA_REPLICATION	127	-2.7513	0.0	0.0
REACTOME_REGULATION_OF_PLK1_ACTIVITY_AT_G2_M_TRANSITION	86	-2.6285	0.0	0.0
REACTOME_RNA_POLYMERASE_I_PROMOTER_ESCAPE	52	-2.2517	0.0	0.0
REACTOME_PRE_NOTCH_EXPRESSION_AND_PROCESSING	82	-1.6885	0.0156	0.0
REACTOME_GAP_FILLING_DNA_REPAIR_SYNTHESIS_AND_LIGATION_IN_GG_NER	25	-2.4277	0.0	0.0
WP_BASE_EXCISION_REPAIR	31	-2.5328	0.0	0.0
REACTOME_GLOBAL_GENOME_NUCLEOTIDE_EXCISION_REPAIR_GG_NER	83	-2.1227	0.0001	0.0
REACTOME_DNA_REPLICATION_PRE_INITIATION	84	-2.4054	0.0	0.0
KEGG_MISMATCH_REPAIR	22	-2.559	0.0	0.0
REACTOME_MITOTIC_SPINDLE_CHECKPOINT	109	-3.2107	0.0	0.0
REACTOME_SIGNALING_BY_RHO_GTPASES	402	-2.3289	0.0	0.0
REACTOME_DNA_STRAND_ELONGATION	32	-3.0646	0.0	0.0

REACTOME_APC_C_MEDIATED_DEGRADATION_OF_CELL_CYCLE_PROTEINS	88	-1.9093	0.0023	0.0
REACTOME_MEIOTIC_RECOMBINATION	48	-2.6358	0.0	0.0
REACTOME_ORC1_REMOVAL_FROM_CHROMATIN	71	-1.7797	0.008	0.0
REACTOME_RESOLUTION_OF_D_LOOP_STRUCTURES_THROUGH_SYNTHESIS_DEPENDENT_STRAND_ANNEALING_SDSA	26	-2.4311	0.0	0.0
REACTOME_ACTIVATED_PKN1_STIMULATES_TRANSCRIPTION_OF_AR_ANDROGEN_RECEPTOR_REGULATED_GENES_KLK2_AND_KLK3	27	-2.4351	0.0	0.0
WP_DNA_REPLICATION	41	-2.967	0.0	0.0
PID_BARD1_PATHWAY	29	-2.5673	0.0	0.0
REACTOME_S_PHASE	162	-2.7695	0.0	0.0
REACTOME_DEPOSITION_OF_NEW_CENPA_CONTAINING_NUCLEOSOMES_AT_THE_CENTROMERE	44	-2.8681	0.0	0.0

DNA damage response

WP_MIRNA_REGULATION_OF_DNA_DAMAGE_RESPONSE	88	-1.8351	0.0049	0.0
WP_DNA_DAMAGE_RESPONSE	66	-1.8157	0.006	0.0
WP_ATM_SIGNALING_PATHWAY	40	-2.0345	0.0005	0.0
WP_INTEGRATED_CANCER_PATHWAY	44	-1.8389	0.0048	0.0
KEGG_NUCLEOTIDE_EXCISION_REPAIR	42	-2.4169	0.0	0.0
REACTOME_DNA_DAMAGE_BYPASS	48	-1.8898	0.0028	0.0
REACTOME_NONHOMOLOGOUS_END_JOINING_NHEJ	44	-2.4834	0.0	0.0
REACTOME_HOMOLOGOUS_DNA_PAIRING_AND_STRAND_EXCHANGE	42	-2.7215	0.0	0.0
REACTOME_PCNA_DEPENDENT_LONG_PATCH_BASE_EXCISION_REPAIR	21	-2.5942	0.0	0.0
REACTOME_NUCLEOTIDE_EXCISION_REPAIR	108	-2.1	0.0001	0.0
REACTOME_DNA_REPAIR	296	-2.6978	0.0	0.0
KEGG_BASE_EXCISION_REPAIR	33	-2.169	0.0001	0.0
REACTOME_BASE_EXCISION_REPAIR	60	-2.8635	0.0	0.0
REACTOME_DNA_DOUBLE_STRAND_BREAK_RESPONSE	52	-2.4418	0.0	0.0
REACTOME_BASE_EXCISION_REPAIR_AP_SITE_FORMATION	33	-2.4868	0.0	0.0
REACTOME_MISMATCH_REPAIR	15	-2.2441	0.0	0.0
REACTOME_HOMOLOGY_DIRECTED_REPAIR	112	-3.046	0.0	0.0
REACTOME_RECOGNITION_OF_DNA_DAMAGE_BY_PCNA_CONTAINING_REPLICATION_COMPLEX	30	-2.4868	0.0	0.0
WP_NUCLEOTIDE_EXCISION_REPAIR	42	-2.4755	0.0	0.0
REACTOME_DNA_DOUBLE_STRAND_BREAK_REPAIR	140	-3.0429	0.0	0.0
REACTOME_PROCESSING_OF_DNA_DOUBLE_STRAND_BREAK_ENDS	73	-2.8438	0.0	0.0

ECM metabolism

WP_MATRIX_METALLOPROTEINASES	29	1.6362	0.0292	0.0038
PID_INTEGRIN5_PATHWAY	17	1.6712	0.023	0.0
KEGG_FOCAL_ADHESION	195	1.6641	0.0237	0.0
REACTOME_LAMININ_INTERACTIONS	30	1.8015	0.0057	0.0
REACTOME_MET_ACTIVATES_PTK2_SIGNALING	30	1.6404	0.0282	0.0026
PID_INTEGRIN1_PATHWAY	66	1.9123	0.0009	0.0

REACTOME COLLAGEN CHAIN TRIMERIZATION	43	1.6418	0.0278	0.0012
REACTOME_INTEGRIN_CELL_SURFACE_INTERACTIONS	84	1.7676	0.0081	0.0
REACTOME_ANCHORING_FIBRIL_FORMATION	15	1.8935	0.0015	0.0
WP_ALPHA_6_BETA_4_SIGNALING_PATHWAY	33	1.5979	0.0409	0.0026
REACTOME_COLLAGEN_FORMATION	89	1.8363	0.0038	0.0
PID_AVB3_OPN_PATHWAY	31	1.6701	0.0232	0.0012
REACTOME_DEGRADATION_OF_THE_EXTRACELLULAR_MATRIX	134	1.8377	0.0039	0.0
PID_INTEGRIN2_PATHWAY	28	1.7013	0.0166	0.0013
REACTOME_COLLAGEN_BIOSYNTHESIS_AND_MODIFYING_ENZYMES	66	1.5997	0.0408	0.0023
REACTOME_ASSEMBLY_OF_COLLAGEN_FIBRILS_AND_OTHER_MULTIMERIC_STRUCTURES	61	1.8358	0.0037	0.0
REACTOME_ECM_PROTEOGLYCANS	76	1.7397	0.0108	0.0
REACTOME_EXTRACELLULAR_MATRIX_ORGANIZATION	291	1.7677	0.0083	0.0
REACTOME_COLLAGEN_DEGRADATION	63	1.7591	0.0094	0.0
REACTOME_NON_INTEGRIN_MEMBRANE_ECM_INTERACTIONS	59	1.773	0.0077	0.0
KEGG_ECM_RECEPTOR_INTERACTION	83	1.637	0.0292	0.0
PID_AVB3_INTEGRIN_PATHWAY	74	1.6628	0.0234	0.0
PID_INTEGRIN3_PATHWAY	43	1.9161	0.0008	0.0
PID_SYNDECAN_1_PATHWAY	46	1.5358	0.0734	0.0048
PID_UPA_UPAR_PATHWAY	42	1.7766	0.0075	0.0
WP_FOCAL_ADHESION	195	1.6186	0.0352	0.0

Keratinization

REACTOME_FORMATION_OF_THE_CORNIFIED_ENVELOPE	99	1.6139	0.0361	0.0
REACTOME KERATINIZATION	130	1.6896	0.019	0.0

NCAM signaling

REACTOME_NCAM1_INTERACTIONS	42	1.7417	0.0108	0.0
REACTOME_NCAM_SIGNALING_FOR_NEURITE_OUTGROWTH	63	1.7358	0.0108	0.0

PPAR signaling

KEGG_PPAR_SIGNALING_PATHWAY	68	1.5814	0.0491	0.0035
WP_PPAR_SIGNALING_PATHWAY	67	1.618	0.0349	0.0035

TP53 regulation

REACTOME_TP53_REGULATES_TRANSCRIPTION_OF_CELL_CYCLE_GENES	48	-1.9636	0.0012	0.0
REACTOME_TRANSCRIPTIONAL_REGULATION_BY_TP53	350	-1.7507	0.0099	0.0
PID_P53_DOWNSTREAM_PATHWAY	131	1.4861	0.0998	0.0021
REACTOME_TP53_REGULATES_TRANSCRIPTION_OF_GENES_INVOLVED_IN_G2_CELL_CYCLE_ARREST	17	-1.9329	0.0018	0.0

Others

Adipogenesis

WP_ADIPOGENESIS	129	1.7206	0.0136	0.0
WP_TRANSCRIPTION_FACTOR_REGULATION_IN_ADIPOGENESIS	22	1.8038	0.0055	0.0

Cardiomyopathy

KEGG_HYPERTROPHIC_CARDIOMYOPATHY_HCM	83	1.6682	0.0232	0.0
--------------------------------------	----	--------	--------	-----

KEGG DILATED CARDIOMYOPATHY	89	1.6431	0.0277	0.0011
KEGG ARRHYTHMOGENIC_RIGHT_VENTRICULAR_CARDIOMYOPATHY_ARVC	74	1.5454	0.0682	0.0011
WP_ARRHYTHMOGENIC_RIGHT_VENTRICULAR_CARDIOMYOPATHY	74	1.5328	0.074	0.0034
<i>Fatty acid metabolism</i>				
REACTOME ARACHIDONIC ACID METABOLISM	53	1.663	0.0236	0.0
WP EICOSANOID SYNTHESIS	22	1.6724	0.0229	0.0027
WP_EICOSANOID_METABOLISM_VIA_LIPO_OXYGENASES_LOX	28	1.6988	0.0171	0.0013
REACTOME FATTY ACID METABOLISM	168	1.5306	0.0756	0.0
<i>Glutathione/cytochrome p450 metabolism</i>				
WP GLUTATHIONE METABOLISM	19	1.6734	0.0228	0.0028
REACTOME_PHASE_II_CONJUGATION_OF_COMPOUNDS	86	1.7161	0.0141	0.0
KEGG_METABOLISM_OF_XENOBIOTICS_BY_CYTOCHROME_P450	48	1.9572	0.0002	0.0
WP_METAPATHWAY_BIOTRANSFORMATION_PHASE_I_AND_II	149	1.6565	0.0249	0.0
REACTOME_PHASE_I_FUNCTIONALIZATION_OF_COMPOUNDS	93	1.6458	0.0276	0.0
REACTOME_CYTOCHROME_P450_ARRANGED_BY_SUBSTRATE_TYPE	55	1.5261	0.0781	0.0048
KEGG RETINOL METABOLISM	44	1.7199	0.0136	0.0
REACTOME BIOLOGICAL OXIDATIONS	184	1.7924	0.0065	0.0
KEGG GLUTATHIONE METABOLISM	46	1.5179	0.0812	0.0012
REACTOME GLUTATHIONE CONJUGATION	31	1.8742	0.002	0.0
KEGG DRUG METABOLISM CYTOCHROME_P450	50	1.925	0.0006	0.0
<i>Muscle contraction</i>				
REACTOME ION HOMEOSTASIS	52	1.723	0.0132	0.0
REACTOME SMOOTH MUSCLE CONTRACTION	36	2.0309	0.0	0.0
WP_STRIATED_MUSCLE_CONTRACTION_PATHWAY	38	1.7136	0.0145	0.005
REACTOME MUSCLE CONTRACTION	200	1.866	0.002	0.0
REACTOME CARDIAC CONDUCTION	134	1.6643	0.0239	0.0

¹ MO4 cells exposed to 1 μ M CM-272 for 24 hours were subjected to RNA sequencing, followed by GSEA on normalized gene expression counts. Listed gene sets comply with following cut-offs: nominal p -value <0.005, FDR-value <0.1, and |NES| >1.

Table S3 – Multiplex gene expression analysis on *ex vivo* tumor tissue - significantly changed gene sets. ¹

Gene set name	# genes	NES	FDR-value	p-value
Immune response				
<i>Toll-like receptor signaling</i>				
REACTOME_MYD88_INDEPENDENT_TLR4_CASCADE	16	2.3143	0.0	0.0
REACTOME_TOLL_LIKE_RECEPTOR_4_TLR4_CASCADE	20	2.223	0.0005	0.0
REACTOME_TOLL_LIKE_RECEPTOR_CASCADES	22	2.1434	0.0003	0.0
REACTOME_TOLL_LIKE_RECEPTOR_TLR1_TLR2_CASCADE	16	2.0911	0.0008	0.0
WP_CYTOSOLIC_DNASENSING_PATHWAY	16	1.9938	0.0025	0.0016
WP_NOVEL_INTRACELLULAR_COMPONENTS_OF_RIGILIKE_RECEPTOR_RLR_PATHWAY	15	1.934	0.0042	0.0
KEGG_RIG_I_LIKE_RECEPTOR_SIGNALING_PATHWAY	16	1.8374	0.0088	0.00
KEGG_TOLL_LIKE_RECEPTOR_SIGNALING_PATHWAY	23	1.7758	0.0122	0.0046
WP_TOLLLIKE_RECEPTOR_SIGNALING_PATHWAY	23	1.7679	0.0116	0.0046
<i>IFN-I response</i>				
REACTOME_DDX58_IFIH1_MEDIATED_INDUCTION_OF_INTERFERON_ALPHA_BETA	17	2.0716	0.0008	0.0
<i>T cell receptor signaling</i>				
WP_TCELL_ANTIGEN_RECEPTOR_TCR_SIGNALING_PATHWAY	24	1.7989	0.0104	0.0
Other pathways				
<i>Signaling by nuclear receptors</i>				
REACTOME_SIGNALING_BY_NUCLEAR_RECEPTORS	17	1.9016	0.0051	0.0016
<i>Cancer-related pathways</i>				
WP_INTEGRATED_BREAST_CANCER_PATHWAY	15	1.961	0.0035	0.0
REACTOME_TRANSCRIPTIONAL_REGULATION_BY_TP53	16	1.8904	0.0054	0.0047
WP_GASTRIN_SIGNALING_PATHWAY	16	1.8744	0.0061	0.0015
KEGG_APOPTOSIS	15	1.8212	0.0096	0.015
KEGG_PATHWAYS_IN_CANCER	32	1.8003	0.0105	0.0015
KEGG_APOPTOSIS	15	1.8212	0.0096	0.015

¹ Tumors of MO4 tumor-bearing mice subjected to the CM-272 treatment regimen were resected at 706.9±193.8 mm³ tumor volume and subjected to multiplex gene expression analysis, followed by GSEA on normalized gene expression counts. Listed gene sets comply with following cut-offs: nominal *p*-value <0.005, FDR-value <0.1, and |NES| >1.

Table S4 – Report on statistical significance pertaining to Figure 5C. ¹

Days after tumor inoculation	7	10	11	12	13	14	17	18	19
Sidak multiple comparison test									
vehicle vs CM-272	-	-	-	-	-	-			
vehicle vs DC	-	-	*	*	**	*			
vehicle vs DC + CM-272	*	**	**	**	***	***			
CM-272 vs DC	-	-	-	-	-	-	***		
CM-272 vs DC + CM-272	-	-	*	*	**	**	****		
DC vs DC + CM-272	-	-	-	-	-	-	-	-	-

¹ MO4 tumor-bearing C57Bl6J mice were subjected to following treatment regimen: vehicle treatment, CM-272 treatment, vehicle treatment + DC vaccination, or CM-272 treatment + DC vaccination, until 1000 mm³ tumor volume endpoint was reached. Mean tumor volume in time was plotted for each experimental group, until the first mouse of the concerning group had reached the experimental endpoint tumor volume (Figure 5C). Experimental conditions were statistically compared using REML modeling with Geisser-Greenhouse correction and post-hoc Sidak multiple comparison test. Fixed effects of ‘treatment’ was significant ($p < 0.0001$). Adjusted p -values (q -values) of the Sidak multiple comparison tests are listed in this table. Asterisks indicate statistical significance: * $q \leq 0.05$; ** $q \leq 0.01$; *** $q \leq 0.001$; **** $q \leq 0.0001$.