Supplemental Figure S1

A)

B)

32X Ph

C)

D)

5X
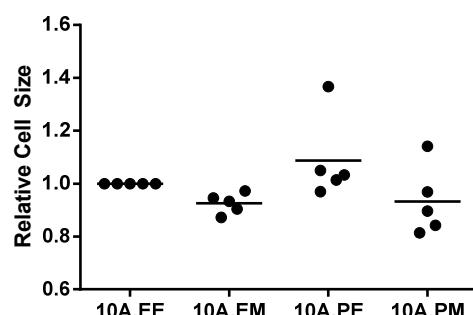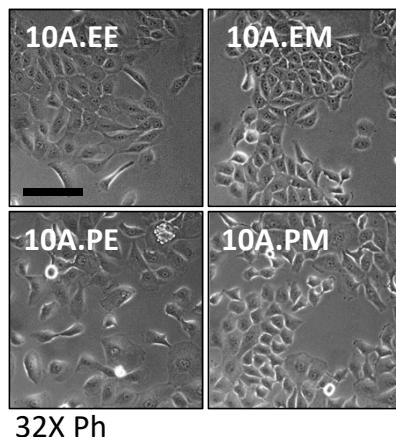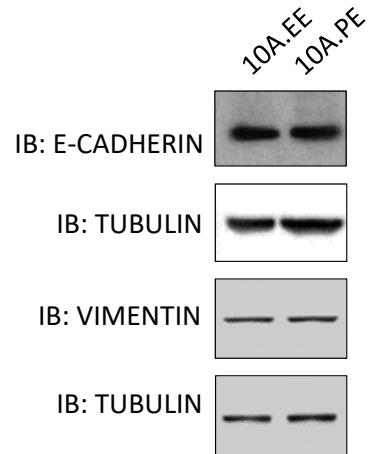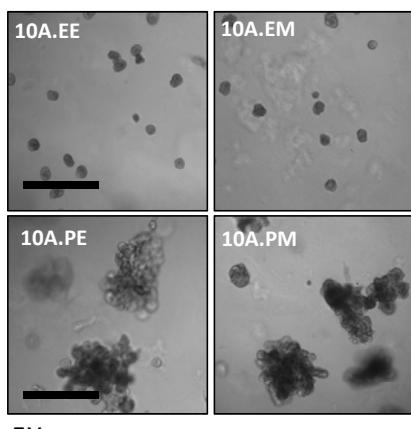
E)
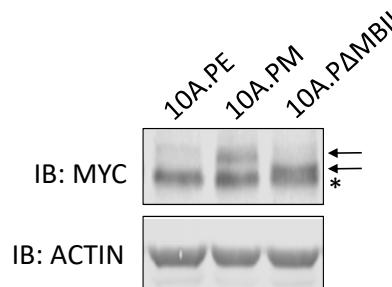
F)

Xenograft Formation	
10A.EE	0/3
10A.EM	0/3
10A.PE	3/3
10A.PM	3/3

G)

|		MMTV-rtTA/TetO-MYC	Breast Cell Line	MCF10A.PM Isogenic model
Species of origin		Mouse	Human	Human
MYC Deregulation		Inducible	Constitutive	Constitutive/Inducible
Other oncogenic mutations		Yes	HTERT, PIK3CA, T	PIK3CA^{H1047R}, CDKN2A^{del}
MYC-dependent transformation	Soft agar	-	Yes	-
	Organoids	-	-	No
	In vivo	Yes	No	Yes
	In vivo growth time	5-6 months	-	1-2 months
Human pathology		No (mouse)	-	Yes
Molecular Profiling *In Vivo*		Yes	No	Yes

Supplementary Figure 1

(A) Flow cytometry measurements for the isogenic MCF10A panel. Mean values are shown for relative cell-size, one-way ANOVA with Bonferroni post-test for multiple testing, 5 biological replicates. **(B)** The MCF10A isogenic panel was cultured in standard MCF10A media for 48 hours before imaging to monitor cell morphology. **(C)** 10A.EE and 10A.PE were cultured for 48 hours and protein lysates were harvested to monitor markers of EMT. **(D)** Images were acquired on day 12 and quantified based on assessment of acinar circularity and size. Scale bar = 500 µm **(E)** Ectopic MYC expression from cells injected into NOD-SCID mice. Arrows point to ectopic WT and ΔMBII protein. * indicates endogenous MYC. **(F)** The MCF10A isogenic panel was injected into female NOD-SCID mice as previously described. Summary of tumor formation is presented, 3 animals per group. **(G)** Summary table of common GEMM and breast cell line models in comparison to the MCF10A.PM isogenic model. "-" represents not tested.

Supplementary Table S1 – MYC driven 10A.PM xenograft differential expression analysis

Differential expressed genes from three 10A.PM and 10A.PE xenograft tumors. All significantly changing genes are shown. Genes with a positive fold change are increased in 10A.PM relative to 10A.PE. Genes with a negative fold change are decreased in 10A.PM relative to 10A.PE.

	PPEE	PPDE	PostFC	RealFC
A2M	0.049958996	0.950041004	0.69663332	1.621308659
A2ML1	0.049886667	0.950113333	-2.321603899	0.162981826
AACSP1	0.049833408	0.950166592	0.958161392	1.961341375
AAMP	0.049828735	0.950171265	0.674155458	1.596570366
AAR2	0.049667919	0.950332081	1.062130496	2.118324857
AARS	0.049663268	0.950336732	0.601423295	1.51819292
AATF	0.049655636	0.950344364	-1.251778649	0.410072891
ABCA10	0.049608296	0.950391704	-1.361185199	0.373966298
ABCA17P	0.049553625	0.950446375	-0.843937717	0.556996776
ABCA6	0.049508348	0.950491652	0.693595182	1.617642169
ABCB10	0.049471579	0.950528421	2.250151458	5.646399338
ABCB9	0.04942183	0.95057817	1.017434745	2.02664375
ABCC2	0.049142354	0.950857646	-1.642776819	0.309400385
ABCC4	0.049081512	0.950918488	-0.60809467	0.656025028
ABCE1	0.049049769	0.950950231	-0.655210077	0.634639594
ABCF1	0.048988152	0.951011848	-0.574018336	0.671701927
ABCF2	0.048810079	0.951189921	-1.848983025	0.236740357
ABCG2	0.048753545	0.951246455	-1.67806634	0.306963823
ABHD14B	0.048718297	0.951281703	0.851606242	1.804524925
ABHD6	0.048559194	0.951440806	1.208863866	2.354429548
ABI2	0.048425899	0.951574101	-2.21161589	0.196102269
ABLIM3	0.048403601	0.951596399	-1.046737599	0.480574699
ABRACL	0.048400573	0.951599427	1.162318553	2.270708189
ABT1	0.048370674	0.951629326	-1.944269025	0.234854533
AC002066.1	0.04816259	0.95183741	0.713472345	1.639955234
AC002117.1	0.048074973	0.951925027	0.662556065	1.583231912
AC002306.1	0.047915945	0.952084055	1.325661867	2.527536012
AC002519.8	0.04790307	0.95209693	1.164913951	2.252601768
AC005152.3	0.047900841	0.952099159	-2.344378025	0.164563937
AC005154.6	0.047757476	0.952242524	-2.259183957	0.188574309
AC005539.2	0.047717128	0.952282872	-1.063414461	0.478253172
AC005618.6	0.047664326	0.952335674	-0.789673046	0.576543067
AC005682.5	0.047594719	0.952405281	-3.371152502	0.088760602
AC005682.6	0.047506	0.952494	0.640718054	1.55997566
AC005752.10	0.047455609	0.952544391	-0.876388418	0.543065192
AC005754.7	0.047451268	0.952548732	-1.518578091	0.348763042
AC005754.8	0.047407483	0.952592517	-2.221298818	0.214148419
AC005863.1	0.047363928	0.952636072	1.167802161	2.2685076
AC006262.4	0.047332988	0.952667012	-1.759856053	0.278762409
AC006262.5	0.04715558	0.95284442	-2.771451106	0.144356301
AC006547.13	0.047062094	0.952937906	-0.747717669	0.595040079
AC006994.1	0.046990006	0.953009994	1.034439982	2.048854865
AC007040.11	0.046841361	0.953158639	0.521530296	1.438059529
AC007099.1	0.046830032	0.953169968	-1.686026782	0.281106376
AC007283.4	0.046713245	0.953286755	0.955239415	1.952017887
AC007461.2	0.046673122	0.953326878	-1.098660414	0.466146687
AC007919.18	0.04661308	0.95338692	-0.542472602	0.685883365
AC008074.3	0.04656914	0.95343086	1.217521963	2.381560487
AC008079.10	0.046523611	0.953476389	0.677416576	1.599551383
AC008277.1	0.046518809	0.953481191	-1.603895039	0.320716887
AC008937.2	0.046472505	0.953527495	-1.300441817	0.40094596
AC009237.6	0.045772186	0.954227814	-1.024352775	0.491545047
AC009299.3	0.045750187	0.954249813	-1.935015558	0.222893233
AC009480.3	0.04570145	0.95429855	-2.276243788	0.188965665
AC009487.6	0.045674859	0.954325141	0.685959239	1.609567536
AC009505.2	0.045587731	0.954412269	-0.871577483	0.545191933
AC009961.3	0.045373752	0.954626248	-0.986746826	0.499481428
AC010148.1	0.045348738	0.954651262	-1.178019183	0.441845242
AC010468.1	0.045271034	0.954728966	1.003727679	2.008119307
AC010524.4	0.045104901	0.954895099	-2.31070975	0.141971007
AC010761.8	0.045011629	0.954988371	1.138992156	2.203137283
AC012074.2	0.044964877	0.955035123	-0.898106483	0.535543648
AC012360.6	0.044937559	0.955062441	-0.541742288	0.686607749
AC012363.13	0.04489902	0.95510098	0.555301675	1.47204909
AC012368.1	0.044844411	0.955155589	0.871994132	1.832228209
AC012370.2	0.044814865	0.955185135	1.233375074	2.379726236
AC012531.25	0.044776404	0.955223596	-1.688184172	0.288562092
AC015849.19	0.044714479	0.955285521	1.393967032	2.758011975
AC016735.2	0.04457668	0.95542332	-1.020862486	0.485931781
AC016738.4	0.044502219	0.955497781	-1.484297182	0.345553577
AC016995.3	0.044389286	0.955610714	0.865699179	1.825663932
AC017060.1	0.044319355	0.955680645	-2.054689293	0.227125753
AC018462.2	0.04425936	0.95574064	-0.914117205	0.530635828
AC018890.6	0.044223335	0.955776665	-1.471094296	0.360529028
AC019117.1	0.044216492	0.955783508	0.515187457	1.429991424
AC019117.2	0.04418147	0.95581853	-0.822020489	0.565093356
AC019186.1	0.044079747	0.955920253	0.713110919	1.639930641
AC021188.4	0.044032971	0.955967029	0.814580735	1.759060097
AC024257.1	0.043995531	0.956004469	-0.969616435	0.510246918
AC024560.3	0.043983796	0.956016204	-1.796816993	0.268925235
AC025171.1	0.04382994	0.95617006	-0.879743237	0.543114389
AC026188.1	0.043798869	0.956201131	1.181615213	2.317621516
AC034220.3	0.043717692	0.956282308	-2.34713975	0.193260866
AC063976.7	0.043685596	0.956314404	-0.615360479	0.652313829
AC069547.2	0.043680733	0.956319267	-2.558528929	0.151001438
AC072062.1	0.0436513	0.9563487	-1.287925423	0.40351799

AC073130.1	0.04361663	0.95638337	-0.793868873	0.574823189
AC073283.7	0.043613563	0.956386437	0.523606817	1.437657191
AC073635.5	0.043431155	0.956568845	0.714216928	1.640789146
AC074011.2	0.043417018	0.956582982	-1.183079738	0.431570113
AC079210.1	0.043333388	0.956666612	-2.038085239	0.234558707
AC079586.1	0.043302097	0.956697903	0.857200832	1.811793834
AC083862.6	0.043165516	0.956834484	0.802916022	1.745263648
AC083899.3	0.04314799	0.95685201	-1.820302367	0.266769343
AC092168.2	0.043125311	0.956874689	-1.376847721	0.379054754
AC092669.3	0.043105207	0.956894793	0.921157415	1.896113721
AC092669.6	0.043037169	0.956962831	-0.560406425	0.677935186
AC092839.4	0.043013674	0.956986326	-0.820532539	0.566078375
AC093110.3	0.042805093	0.957194907	0.601100347	1.517087357
AC093323.3	0.042758941	0.957241059	0.580383069	1.495485004
AC093732.1	0.04273733	0.95726267	-0.872247316	0.544671169
AC093822.1	0.042723577	0.957276423	0.630257274	1.549203439
AC096772.6	0.04255609	0.95744391	-0.957816331	0.514785641
AC104058.1	0.042472187	0.957527813	1.432680407	2.812568279
AC104654.2	0.042421917	0.957578083	-0.735298033	0.600647865
AC105760.3	0.042354495	0.957645505	1.885062286	3.983536292
AC107081.5	0.042327311	0.957672689	2.973642691	8.749651899
AC107218.3	0.042181743	0.957818257	1.082673479	2.148110152
AC112229.1	0.042116086	0.957883914	-1.387626211	0.374641755
AC116366.6	0.042052176	0.957947824	-1.939636914	0.241538267
AC133106.2	0.04191098	0.95808902	0.665280859	1.590701978
AC135178.1	0.041903584	0.958096416	0.565351513	1.482077689
AC139100.3	0.041885672	0.958114328	1.591011939	3.121681009
AC226118.1	0.041860182	0.958139818	0.6588154	1.581551149
ACACB	0.041790398	0.958209602	-1.014464997	0.494188808
ACADSB	0.041617139	0.958382861	0.961798321	1.950732056
ACAT1	0.041609649	0.958390351	-0.599877396	0.659171331
ACE2	0.041558551	0.958441449	1.144776921	2.255747566
ACKR2	0.041541512	0.958458488	-2.166929772	0.177265967
ACLY	0.041513247	0.958486753	0.967912447	1.95675092
ACOT11	0.041384594	0.958615406	-1.531090663	0.342118056
ACOX1	0.04132054	0.95867946	0.712615607	1.639440003
ACP1	0.041235097	0.958764903	-0.861670835	0.549274672
ACSBG1	0.041224426	0.958775574	1.346183063	2.61156799
ACSM1	0.041199876	0.958800124	-2.567648042	0.159007787
ACSM6	0.041157773	0.958842227	-1.712100653	0.305030867
ACSS3	0.041105676	0.958894324	-1.629895407	0.322432794
ACTA1	0.041090975	0.958909025	-2.098678662	0.204081104
ACTA2-AS1	0.041047635	0.958952365	-0.750790732	0.593563959
ACTL10	0.041022068	0.958977932	-1.577124043	0.325555136
ACTN1	0.040986074	0.959013926	1.528220767	2.908476002
ACTR3B	0.040867319	0.959132681	-2.733239309	0.122239958
ACVR1	0.040858942	0.959141058	1.032792409	2.04820123
ACVR1C	0.0408268	0.9591732	-0.891538849	0.536253947
ACVR2A	0.040780007	0.959219993	0.748303116	1.679968813
ACY1	0.040676122	0.959323878	-1.42241771	0.371973607
ACYP2	0.040582584	0.959417416	-2.808347773	0.134799577
ADA	0.040522747	0.959477253	-1.068035394	0.46792331
ADAM12	0.040472904	0.959527096	0.730220154	1.659025095
ADAM15	0.04045177	0.95954823	-2.365068702	0.161148868
ADAM19	0.040412236	0.959587764	-2.804199334	0.10329296
ADAM1B	0.040213597	0.959786403	-0.827082884	0.562834172
ADAM20	0.040087265	0.959912735	1.253653177	2.432225266
ADAM20P1	0.040026387	0.959973613	-2.055451815	0.209264586
ADAM22	0.039886387	0.960113613	-3.100398505	0.098827844
ADAM28	0.039877284	0.960122716	-1.52812941	0.334153241
ADAMTS14	0.039762438	0.960237562	0.910290707	1.880542617
ADAMTS16	0.039725044	0.960274956	1.124960917	2.211315291
ADAMTS17	0.039650481	0.960349519	-1.692920458	0.295598347
ADAMTS19	0.039648038	0.960351962	-1.701702847	0.288729144
ADAMTS2	0.039520616	0.960479384	-2.600026619	0.146750258
ADAMTS5	0.039515275	0.960484725	-1.11415041	0.453799132
ADAMTS6	0.039494874	0.960505126	0.957341761	1.942162513
ADAMTSL1	0.039412362	0.960587638	1.055400526	2.086725327
ADAMTSL5	0.039403236	0.960596764	-0.632916446	0.644554014
ADAT2	0.039345371	0.960654629	0.923400878	1.897405417
ADCK3	0.039300213	0.960699787	-2.428158104	0.153867457
ADCY1	0.039293629	0.960706371	-1.581324388	0.313427546
ADCY10P1	0.039258457	0.960741543	0.852633934	1.808656661
ADCY3	0.039244964	0.960755036	0.694845071	1.620124862
ADD1	0.039230418	0.960769582	-2.282204887	0.184932045
ADD3	0.039012456	0.960987544	0.694188776	1.619108543
ADGRE2	0.038893297	0.961106703	-0.995469186	0.492773548
ADGRF1	0.038818575	0.961181425	1.219455801	2.340951962
ADGRF2	0.038762397	0.961237603	-1.57948758	0.33144685
ADGRF5P1	0.038721483	0.961278517	0.778660983	1.716736984
ADGRG2	0.038665896	0.961334104	1.273593257	2.430799572
ADH1A	0.038659583	0.961340417	-1.422042373	0.36632354
ADH1B	0.038643048	0.961356952	1.204586329	2.313621613
ADH4	0.038624546	0.961375454	-0.528550741	0.693134363
ADH6	0.038611762	0.961388238	0.67822869	1.600714362
ADHFE1	0.038558564	0.961441436	0.786007255	1.728114873
ADI1	0.038520757	0.961479243	0.58071886	1.496023873
ADIRF-AS1	0.03847324	0.96152676	-1.605209445	0.317333142
ADK	0.038429528	0.961570472	0.918201863	1.890558615
ADM	0.038425574	0.961574426	1.13510636	2.211385698
ADPGK	0.038377967	0.961622033	-2.294460658	0.181951224
ADPRHL2	0.038263548	0.961736452	-1.427729975	0.362405714
ADPRM	0.038187015	0.961812985	-0.784524237	0.580086377

ADSL	0.038163506	0.961836494	-1.743640116	0.282752034
ADTRP	0.038001532	0.961998468	-2.544754468	0.164417316
AEN	0.03794265	0.96205735	-1.070927575	0.471948569
AF064860.5	0.037902796	0.962097204	-2.560575358	0.153435705
AF064860.7	0.037737035	0.962262965	-1.203807437	0.433099471
AF127936.9	0.037723295	0.962276705	-1.424000631	0.356099077
AF146191.4	0.037614738	0.962385262	-1.763424415	0.273497328
AF178030.2	0.037583572	0.962416428	-1.103415152	0.462649212
AF212831.2	0.037544358	0.962455642	-1.962292339	0.225972763
AFAP1-AS1	0.037399258	0.962600742	-0.682381488	0.621845172
AFAP1L2	0.037338395	0.962661605	1.560156058	2.95935941
AFF2	0.037287888	0.962712112	-1.063606235	0.471538682
AFG3L1P	0.037171955	0.962828045	0.548985888	1.463218395
AFG3L2	0.037155685	0.962844315	-2.406468453	0.173497431
AGO4	0.037138134	0.962861866	0.71701559	1.644368221
AGPAT4	0.037067177	0.962932823	0.75584111	1.68939671
AGPAT5	0.037028397	0.962971603	-0.84178576	0.55775912
AGT	0.036999637	0.963000363	0.968926058	1.957863134
AHCY	0.036976643	0.963023357	-2.540662484	0.155335863
AHCYL2	0.03681917	0.96318083	-1.097875464	0.4650377
AHRR	0.036788862	0.963211138	-1.198714871	0.433554947
AHSA1	0.036788713	0.963211287	-3.689106818	0.075630683
AIF1L	0.036756465	0.963243535	0.649369706	1.569101996
AIFM1	0.036676561	0.963323439	-2.256865559	0.162985482
AIM1	0.036660942	0.963339058	-0.57506948	0.66998663
AIMP1	0.036573339	0.963426661	0.608221994	1.524697541
AIMP2	0.036537895	0.963462105	-1.117978648	0.460713418
AJUBA	0.036508411	0.963491589	-1.484065761	0.342227968
AK1	0.036452652	0.963547348	1.870372106	3.660529555
AK2	0.036337706	0.963662294	-1.41831427	0.3623158
AK4	0.036327018	0.963672982	1.623479018	3.188299808
AK4P1	0.036248944	0.963751056	-1.217250259	0.415621728
AK4P4	0.036123094	0.963876906	0.740107267	1.678290445
AKAP1	0.036028437	0.963971563	1.039825029	2.056047425
AKAP13	0.036000557	0.963999443	1.431013233	2.699571791
AKAP8	0.035971813	0.964028187	-1.734428703	0.2815476
AKR1A1	0.035880506	0.964119494	-0.716776977	0.60789942
AKR1B1	0.035817582	0.964182418	1.207386167	2.314494825
AKR1C3	0.035803028	0.964196972	-1.101764162	0.465669975
AKR1E2	0.035783934	0.964216066	0.934717204	1.913439611
AKR7A2	0.035781264	0.964218736	0.826730752	1.773768434
AKR7A2P1	0.035766854	0.964233146	-0.965370227	0.5099704
AKR7A3	0.035764007	0.964235993	-1.079135498	0.470139647
AKR7L	0.035717352	0.964282648	-0.657361043	0.633818019
AKT1S1	0.035707275	0.964292725	1.612723663	3.073591158
AKT3	0.035656154	0.964343846	-0.76766774	0.584473611
AL031320.1	0.035641605	0.964358395	-0.721215363	0.606539016
AL109767.1	0.035549212	0.964450788	-1.310689978	0.402817369
AL163953.3	0.03554867	0.96445133	2.117054177	4.686318789
AL353626.1	0.035543337	0.964456663	-1.128648276	0.45709689
AL353626.2	0.035496973	0.964503027	0.728933178	1.659349262
AL353698.1	0.035473154	0.964526846	-1.005936344	0.495997121
AL590452.1	0.035442708	0.964557292	0.868002495	1.828532718
AL591893.1	0.035434768	0.964565232	-1.088903929	0.464181089
ALAD	0.035369297	0.964630703	-2.47204919	0.17249814
ALDH18A1	0.035271489	0.964728511	1.047733913	2.094854538
ALDH1A1	0.035042906	0.964957094	-1.794331398	0.287475828
ALDH1B1	0.035004983	0.964995017	-2.087469989	0.209287834
ALDH1L2	0.034997708	0.965002292	-0.734038121	0.601165137
ALDOA	0.034963744	0.965036256	-0.556002359	0.680066667
ALG1	0.034823723	0.965176277	0.622172084	1.540994133
ALG1L13P	0.034648374	0.965351626	-0.880058351	0.542248135
ALG3	0.034495934	0.965504066	-0.769852758	0.582558723
ALG5	0.034484294	0.965515706	-2.892285082	0.129803089
ALG8	0.034423487	0.965576513	-2.543825783	0.12076943
ALK	0.034195328	0.965804672	-1.180333909	0.438957618
ALKBH2	0.03418396	0.96581604	0.883418645	1.861301844
ALKBH3	0.034173311	0.965826689	0.733703258	1.663230653
ALOX15B	0.034105634	0.965894366	-1.553460094	0.325185909
ALPK1	0.034042943	0.965957057	0.720284543	1.650465399
ALPK2	0.033683534	0.966316466	-1.723814917	0.299841159
ALYREF	0.033671637	0.966328363	-1.053972441	0.480033288
AMER1	0.033557998	0.966442002	-0.588815946	0.664872859
AMIGO1	0.033415687	0.966584313	-0.694085865	0.616334679
AMOT	0.033396525	0.966603475	0.60418374	1.520990842
AMOTL1	0.033333081	0.966666919	1.663171527	3.318187389
AMPD2	0.033188638	0.966811362	0.846584953	1.798418763
AMT	0.033103182	0.966896818	1.024820805	2.045443094
AMY2B	0.033084983	0.966915017	-0.892953426	0.536168436
ANAPC1	0.033066487	0.966933513	-0.556999	0.679415637
ANAPC11	0.032983211	0.967016789	0.783980612	1.722058435
ANAPC5	0.032963793	0.967036207	-0.906160791	0.529853783
ANAPC7	0.032912033	0.967087967	-1.550030421	0.33921096
ANGEL1	0.032859653	0.967140347	-1.177121831	0.432691368
ANGPTL2	0.032835406	0.967164594	-1.082861557	0.464464386
ANGPTL4	0.032782374	0.967217626	-1.124639436	0.454021205
ANGPTL7	0.032773704	0.967226296	0.566444272	1.481565451
ANK2	0.032760095	0.967239905	-1.467545634	0.359659688
ANK3	0.032756469	0.967243531	1.048980153	2.076623814
ANKAR	0.032674373	0.967325627	-1.819485394	0.273350388
ANKDD1B	0.032595211	0.967404789	-2.212599293	0.207305485
ANKH	0.032305389	0.967694611	-3.405521852	0.062948244
ANKMY1	0.032287856	0.967712144	-1.10043931	0.456160876

ANKRD13B	0.032263639	0.967736361	-0.90189352	0.534932968
ANKRD16	0.032118472	0.967881528	-1.385590374	0.375284006
ANKRD18B	0.032067072	0.967932928	-2.528481023	0.126283849
ANKRD19P	0.032036152	0.967963848	0.806178426	1.749143562
ANKRD20A11P	0.032016844	0.967983156	1.428830588	2.705807598
ANKRD22	0.03199331	0.96800669	1.079994049	2.115791063
ANKRD27	0.031977463	0.968022537	-0.889757641	0.537611047
ANKRD30BP3	0.031894653	0.968105347	0.889508138	1.867912157
ANKRD36C	0.031892675	0.968107325	-2.171151346	0.206667807
ANKRD37	0.031833004	0.968166996	-0.800783536	0.573940639
ANKRD44	0.031825086	0.968174914	-1.032635695	0.483939615
ANKRD44-IT1	0.031732942	0.968267058	-1.132450978	0.45562876
ANKRD62P1-PARP4	0.031692127	0.968307873	-1.62812537	0.322749675
ANKS1A	0.031613895	0.968386105	-0.915027344	0.526196539
ANKS1B	0.03158503	0.96841497	-0.914357221	0.524374698
ANKS3	0.031526715	0.968473285	1.306419586	2.482640487
ANKZF1	0.031474509	0.968525491	0.806615408	1.758967714
ANO1	0.031320658	0.968679342	0.812034963	1.756028464
ANO10	0.031250922	0.968749078	0.87676087	1.837618509
ANOS1	0.03122928	0.96877072	-1.120756673	0.452309482
ANP32A	0.031219565	0.968780435	-2.716266252	0.151925387
ANP32B	0.03120381	0.96879619	0.761266159	1.695526768
ANP32E	0.031179441	0.968820559	-1.662182512	0.315574921
ANTXR1	0.031171275	0.968828725	1.277755558	2.473784067
ANXA10	0.031028402	0.968971598	-1.721499359	0.2775715
ANXA2P1	0.030988651	0.969011349	0.809240778	1.757131843
ANXA2R	0.030933598	0.969066402	0.72175958	1.649541506
ANXA5	0.030669037	0.969330963	-2.095784482	0.227615166
AOX1	0.030504076	0.969495924	-1.730813254	0.298995843
AP000230.1	0.030502727	0.969497273	0.934044989	1.924402093
AP000432.3	0.030471231	0.969528769	-1.649692008	0.309719758
AP000473.5	0.030414705	0.969585295	-0.887360845	0.538137338
AP000473.8	0.030409895	0.969590105	0.522745098	1.436738976
AP000476.1	0.030390881	0.969609119	1.398190658	2.661691539
AP000479.1	0.030382001	0.969617999	-0.888651306	0.537771222
AP000654.4	0.030362746	0.969637254	0.558298931	1.473903735
AP000962.1	0.030316332	0.969683668	-1.589680759	0.315398574
AP000962.2	0.030266466	0.969733534	-0.895795202	0.535306286
AP000998.2	0.030221841	0.969778159	-1.860891416	0.251807667
AP001258.4	0.030134325	0.969865675	-0.764081084	0.587099999
AP001350.4	0.030036935	0.969963065	0.672931649	1.596186606
AP001439.2	0.030022481	0.969977519	1.602957074	3.058013057
AP001442.2	0.029964264	0.970035736	-0.613866144	0.65320762
AP002954.3	0.029846355	0.970153645	-2.028725405	0.21948382
AP003041.2	0.029813316	0.970186684	-1.834384013	0.25831492
AP003068.18	0.029764999	0.970235001	0.793645348	1.733558223
AP1S1	0.029755585	0.970244415	-1.311238582	0.397108306
AP2S1	0.029740899	0.970259101	-0.985848197	0.49614578
AP3B2	0.029662094	0.970337906	1.881634969	3.992736507
AP4S1	0.029634735	0.970365265	0.896720191	1.865396309
APBA1	0.029610754	0.970389246	-0.962263299	0.511910125
APBB2	0.029480534	0.970519466	0.913239416	1.883467202
APCDD1	0.029466676	0.970533324	-0.583049555	0.667381238
APCDD1L-AS1	0.02938112	0.97061888	0.639413206	1.561957106
APEH	0.029319433	0.970680567	-3.242301284	0.104597204
APEX1	0.029295655	0.970704345	1.396716516	2.722944037
APH1B	0.029248618	0.970751382	1.41430041	2.666392688
APIP	0.029215768	0.970784232	0.93278075	1.911629084
APITD1	0.029210996	0.970789004	-0.663069469	0.629657172
APLF	0.029177463	0.970822537	-0.760377167	0.588394536
APLN	0.029154964	0.970845036	-1.034606585	0.487496816
APOA1BP	0.029120012	0.970879988	1.208942339	2.320593043
APOB	0.029090286	0.970909714	1.152003047	2.222294949
APOBEC3B	0.029035515	0.970964485	-0.523769476	0.695142337
APOBEC3G	0.029003815	0.970996185	-0.791683771	0.577026283
APOD	0.028970493	0.971029507	-2.68373492	0.122392443
APOL1	0.028947332	0.971052668	-1.678140513	0.308488964
APOL4	0.028887274	0.971112726	-0.628921646	0.646470475
APP	0.028876397	0.971123603	1.344749341	2.578518928
APPL2	0.028860829	0.971139171	0.558752918	1.475565914
APRT	0.028801372	0.971198628	-1.198597308	0.427060927
APTX	0.028702599	0.971297401	-1.062945452	0.478445854
AQP3	0.028646785	0.971353215	0.705601252	1.63129407
AQP4-AS1	0.028581236	0.971418764	-2.861692162	0.136678458
AQP7	0.028549905	0.971450095	-2.156815844	0.223982702
AR	0.028505577	0.971494423	1.1462723	2.213664495
ARF1	0.02848846	0.97151154	0.702186188	1.628299782
ARFIP2	0.028478907	0.971521093	1.221021721	2.331873587
ARHGAP10	0.028440887	0.971559113	1.044072353	2.083916753
ARHGAP11A	0.028428594	0.971571406	-0.708201686	0.609131226
ARHGAP11B	0.02841145	0.97158855	0.820367335	1.766113639
ARHGAP17	0.028306634	0.971693366	1.858740087	3.721284113
ARHGAP22	0.028293635	0.971706365	-1.082078995	0.469828309
ARHGAP31	0.028280528	0.971719472	-1.765274516	0.289832663
ARHGAP8	0.028251023	0.971748977	0.871627636	1.841074464
ARHGEF10	0.028216369	0.971783631	0.915714716	1.886798912
ARHGEF28	0.028200151	0.971799849	-0.979159129	0.506219995
ARHGEF33	0.028166819	0.971833181	-1.998939749	0.223012866
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ARHGEF9	0.02812057	0.97187943	-0.964524845	0.510998734
ARID1B	0.028114556	0.971885444	1.069268331	2.107812638

ARID5B	0.0281031	0.9718969	-0.931280027	0.522483677
ARIH2	0.028091668	0.971908332	-1.948021227	0.25465991
ARL13A	0.028039185	0.971960815	-1.896995859	0.268307415
ARL4A	0.028036696	0.971963304	-2.483559555	0.177291321
ARL4C	0.028017785	0.971982215	-2.677178846	0.126790157
ARL5A	0.028003768	0.971996232	-2.271715475	0.166812729
ARMC6	0.027986556	0.972013444	-1.708187179	0.303409712
ARNT	0.027952118	0.972047882	-1.501884943	0.350661131
ARNT2	0.027934499	0.972065501	0.707108396	1.63825671
ARNTL	0.02792663	0.97207337	-1.643910557	0.296885638
ARPC4	0.027808464	0.972191536	-1.026733827	0.486405153
ARPC5L	0.027757293	0.972242707	-1.123220156	0.451741715
ARPIN	0.02775043	0.97224957	-1.002723657	0.494895586
ARRB2	0.027728291	0.972271709	-2.054451466	0.24020248
ARRDC1-AS1	0.027661522	0.972338478	-1.27096223	0.410712162
ARSD	0.027650766	0.972349234	-1.430904987	0.369622005
ASAP2	0.027633896	0.972366104	-0.62147091	0.649692112
ASB13	0.027572947	0.972427053	-1.731379415	0.292159449
ASB9	0.027572645	0.972427355	-1.048973865	0.480887362
ASF1B	0.027538903	0.972461097	0.855859111	1.82149683
ASNA1	0.027435593	0.972564407	0.756377454	1.689340323
ASNS	0.027350488	0.972649512	1.374102759	2.613912208
ASPA	0.027344511	0.972655489	-1.776631188	0.276213492
ASS1	0.027300587	0.972699413	0.853250482	1.807158451
ASTN1	0.027197139	0.972802861	-1.299104562	0.406117672
ASUN	0.027163124	0.972836876	-2.345222614	0.188001098
ATAD3A	0.027145679	0.972854321	-1.748830471	0.297353975
ATAD3C	0.027117625	0.972882375	0.971160251	1.962927068
ATAT1	0.027026849	0.972973151	0.778815489	1.71594112
ATE1-AS1	0.026968241	0.973031759	-0.56114487	0.677611915
ATF3	0.026958184	0.973041816	-1.246734028	0.40794223
ATF4	0.026860673	0.973139327	1.405100792	2.666351103
ATF5	0.026850049	0.973149951	1.930178729	4.207288394
ATF7	0.026812311	0.973187689	-0.666045556	0.63007405
ATG9B	0.026709473	0.973290527	-1.368928986	0.385871404
ATL1	0.026636822	0.973363178	0.579747747	1.495216193
ATL2	0.026612473	0.973387527	1.151760198	2.222326973
ATOX1	0.026608895	0.973391105	0.666047059	1.590699891
ATP10B	0.026597543	0.973402457	1.811506635	3.66804517
ATP10D	0.026558455	0.973441545	-0.962454965	0.509646056
ATP12A	0.026515254	0.973484746	1.010501479	2.029323342
ATP1B3	0.026417855	0.973582145	-0.930098563	0.524659659
ATP1B3-AS1	0.026381441	0.973618559	-1.425583957	0.369401618
ATP2B4	0.026281405	0.973718595	-1.164231247	0.437821722
ATP5A1	0.02622648	0.97377352	-2.587238616	0.154014299
ATP5B	0.026169989	0.973830011	1.084584367	2.125090828
ATP5C1	0.026166675	0.973833325	0.924183718	1.897748512
ATP5D	0.026101189	0.973898811	-0.678972185	0.624201682
ATP5F1	0.026101089	0.973898911	-1.078444771	0.473495603
ATP5F1P1	0.026097448	0.973902552	-0.667810807	0.626490239
ATP5G1	0.026073888	0.973926112	-2.705915131	0.14463933
ATP5G2	0.026048644	0.973951356	0.521128428	1.435302487
ATP5G3	0.026036451	0.973963549	0.740026943	1.67047321
ATP5J2	0.026023767	0.973976233	-1.225264717	0.426209191
ATP5L	0.026001933	0.973998067	1.379613163	2.603398671
ATP5O	0.025983295	0.974016705	0.666019362	1.588256527
ATP6AP1L	0.025961541	0.974038459	0.842594353	1.796708552
ATP6V0B	0.025944546	0.974055454	-1.407030154	0.374459592
ATP6V0D2	0.025928028	0.974071972	-1.089818047	0.469695838
ATP6V1F	0.025880091	0.974119909	-1.412926924	0.372456562
ATP8B2	0.025854392	0.974145608	-1.75204745	0.283170122
ATP8B3	0.025848121	0.974151879	0.69187599	1.622927557
ATP9A	0.025837965	0.974162035	1.03129435	2.068512947
ATXN1	0.025826531	0.974173469	0.805072542	1.753325851
ATXN3	0.025806105	0.974193895	1.061020811	2.089889367
ATXN7L2	0.025804025	0.974195975	1.030224896	2.044488658
AUNIP	0.025764027	0.974235973	-1.656959554	0.306507326
AUP1	0.025730329	0.974269671	0.86331283	1.819751326
AURKA	0.025727727	0.974272273	-1.056626802	0.480201441
AURKAIP1	0.02571057	0.97428943	0.927136682	1.902205421
AURKB	0.025561005	0.974438995	0.863302833	1.819937087
AVEN	0.025544168	0.974455832	0.808270771	1.752576539
AVPI1	0.025538311	0.974461689	-1.524139625	0.345709426
AWAT1	0.0255318	0.9744682	0.696334632	1.621297289
AWAT2	0.025449236	0.974550764	1.318533892	2.562644525
AXDND1	0.025437237	0.974562763	-0.661771728	0.630972425
AXIN2	0.025391543	0.974608457	-0.800834526	0.570516122
AXL	0.025389024	0.974610976	-2.737481134	0.103635096
AZIN1-AS1	0.025373046	0.974626954	-1.751277632	0.296867327
B3GALT4	0.025343508	0.974656492	-2.853600721	0.128943727
B3GALT5	0.025295744	0.974704256	-1.102972869	0.463700888
B3GNT3	0.025291624	0.974708376	0.819333233	1.765789053
B4GALT2	0.025274094	0.974725906	-0.941550999	0.520508183
B4GALT3	0.02527011	0.97472989	1.730990136	3.4976664
BAALC	0.025047031	0.974952969	0.60514567	1.521362336
BAALC-AS1	0.025045093	0.974954907	-1.238727472	0.423046856
BABAM1	0.025042778	0.974957222	-2.11230736	0.207941277
BACE1	0.025006224	0.974993776	0.521573953	1.435977391
BACH2	0.024881565	0.975118435	-1.66531648	0.315208128
BAG2	0.024856866	0.975143134	1.501282991	2.875510687
BAG3	0.024766895	0.975233105	-1.033541127	0.487936782
BAMBI	0.024748003	0.975251997	-0.614009969	0.652754541
BARX2	0.024655877	0.975344123	-1.777068359	0.291150547

BAX	0.024616873	0.975383127	1.115921056	2.176258038
BAZ2B	0.024548549	0.975451451	-1.117555524	0.455486637
BBOX1	0.024471766	0.975528234	-0.773075002	0.584369135
BBOX1-AS1	0.024437691	0.975562309	1.023032505	2.033006574
BBS9	0.024425388	0.975574612	1.648505619	3.31352906
BCAR3	0.024409402	0.975590598	-2.750732393	0.103784941
BCAS1	0.024401022	0.975598978	1.177985009	2.265376895
BCAS2P2	0.024376191	0.975623809	0.911343918	1.888558362
BCAS3	0.024341974	0.975658026	0.593307523	1.508929278
BCAT1	0.024285042	0.975714958	-1.781621057	0.289643353
BCAT2	0.024234451	0.975765549	1.105620012	2.172435144
BCCIP	0.024196467	0.975803533	-2.318320682	0.18556858
BCHE	0.024143915	0.975856085	-3.409977082	0.079022897
BCKDK	0.024014168	0.975985832	-1.998297874	0.223047116
BCL11B	0.023958063	0.976041937	0.952049327	1.935085324
BCL2	0.023945472	0.976054528	-1.801231997	0.262997971
BCL2L14	0.023874839	0.976125161	1.347521445	2.601991068
BCL6	0.023831142	0.976168858	-1.561232363	0.333664502
BCL7C	0.023822228	0.976177772	-1.962279449	0.250049377
BCS1L	0.023802313	0.976197687	0.756979326	1.690056373
BCYRN1	0.023778593	0.976221407	0.862693694	1.823250236
BDH1	0.023743263	0.976256737	-1.292588695	0.40776808
BDKRB2	0.023742653	0.976257347	-0.904923892	0.533791444
BEAN1	0.023703403	0.976296597	-2.265290134	0.179132816
BEND7	0.023645516	0.976354484	-1.667626694	0.296873076
BEST4	0.023640154	0.976359846	-1.286816565	0.407943823
BFAR	0.023622947	0.976377053	-0.980743983	0.504278159
BHLHB9P1	0.023588147	0.976411853	-2.212980767	0.211952433
BHLHE40	0.023563136	0.976436864	-1.047575728	0.483162987
BHLHE41	0.02354176	0.97645824	-2.244768836	0.209776627
BICC1	0.023535655	0.976464345	-2.041552386	0.238965035
BID	0.023532364	0.976467636	-2.365935172	0.154183672
BIN2	0.02341623	0.97658377	-0.761965548	0.589184308
BIRC5	0.023398965	0.976601035	-2.314221637	0.171295397
BLACAT1	0.023395295	0.976604705	-1.704633105	0.306391421
BLM	0.023386053	0.976613947	0.902727005	1.876231964
BLMH	0.023338554	0.976661446	1.32914827	2.586079322
BLNK	0.023332762	0.976667238	-1.337108424	0.393129391
BLOC1S4	0.023289885	0.976710115	-2.747760546	0.113364975
BLZF2P	0.023266815	0.976733185	0.778235588	1.716285475
BMP2KL	0.023220153	0.976779847	1.487639396	2.823924812
BMP4	0.023182638	0.976817362	-1.01300744	0.490531392
BMP6	0.02312601	0.97687399	-2.074068295	0.1989825
BMP7	0.023104016	0.976895984	-0.92319678	0.52596399
BMPR1APS1	0.023097845	0.976902155	-1.490918708	0.342835047
BMPR2	0.023027309	0.976972691	-1.150817329	0.445920019
BMS1	0.022998868	0.977001132	0.803508453	1.745455232
BNC1	0.022985663	0.977014337	-1.867687248	0.255950304
BNIP1	0.022955289	0.977044711	0.747583073	1.679727135
BNIP3	0.022945732	0.977054268	-2.038270583	0.227485666
BNIPL	0.022877018	0.977122982	-2.011778852	0.247409948
BOC	0.022845097	0.977154903	-0.754396451	0.590146473
BOD1	0.022785564	0.977214436	2.000774536	4.393876262
BOLA3	0.022777889	0.977222111	-1.887515895	0.253137813
BOP1	0.02277671	0.97722329	-1.671818927	0.302485263
BRCA2	0.02276271	0.97723729	1.2497557	2.434081065
BRD9	0.02266697	0.97733303	-0.712908024	0.608240366
BRI3BP	0.022652063	0.977347937	0.92238668	1.906376477
BRIX1	0.022635877	0.977364123	-2.149567946	0.194300496
BSPRY	0.022550168	0.977449832	1.033736631	2.064658846
BTBD16	0.022478589	0.977521411	0.533185512	1.448136864
BTBD3	0.022359101	0.977640899	-1.268641444	0.408772227
BTBD8	0.022310521	0.977689479	-1.712430283	0.28915419
BTC	0.022289362	0.977710638	-1.249007083	0.411459905
BTF3	0.022227787	0.977772213	0.823197088	1.769814255
BUB1	0.022224412	0.977775588	0.542304923	1.457935972
BUB1B	0.022140794	0.977859206	-2.40590966	0.186025335
BUD31	0.022102685	0.977897315	-0.845557576	0.556469841
BVES	0.02203878	0.97796122	-0.825651949	0.559878706
BYSL	0.022036889	0.977963111	0.5755874	1.490800642
BZW2	0.021935904	0.978064096	-0.96777238	0.511181225
C10orf113	0.021915419	0.978084581	-1.024389083	0.486212904
C10orf2	0.021898589	0.978101411	-3.248476156	0.092834075
C11orf24	0.021885918	0.978114082	-0.78269133	0.578184775
C11orf63	0.021822355	0.978177645	-2.102834054	0.228456889
C11orf80	0.021820006	0.978179994	-1.861358675	0.257479346
C12orf42	0.021757454	0.978242546	-1.874722446	0.242710365
C12orf45	0.021721446	0.978278554	-0.546522599	0.684559783
C12orf54	0.021681301	0.978318699	-1.814740949	0.275744312
C12orf65	0.021626287	0.978373713	-0.896996904	0.536761236
C12orf73	0.021455019	0.978544981	-1.162595838	0.446686018
C14orf169	0.02144586	0.97855414	-1.863977381	0.248461807
C14orf2	0.021428948	0.978571052	-2.043999535	0.199658411
C14orf37	0.021424256	0.978575744	-0.855886286	0.547739381
C16orf13	0.021380869	0.978619131	-0.738252615	0.598916962
C16orf45	0.021350729	0.978649271	-1.75298544	0.283269154
C16orf91	0.021276552	0.978723448	1.147947661	2.221951878
C17orf49	0.021248902	0.978751098	-1.186306167	0.436671896
C17orf53	0.021213368	0.978786632	0.551522612	1.465966721
C17orf89	0.021197959	0.978802041	1.325818027	2.50859437
C17orf96	0.021148249	0.978851751	0.527473441	1.442086276
C18orf15	0.021114011	0.978885989	-3.681808603	0.067973551
C18orf21	0.0211103	0.9788897	-1.666134852	0.315037227

C19orf43	0.021058364	0.978941636	-1.855650064	0.274667026
C19orf48	0.020989431	0.979010569	-0.8725604	0.546103302
C19orf53	0.020969352	0.979030648	-2.492733151	0.175676238
C19orf70	0.020897707	0.979102293	-1.535268651	0.332472166
C1orf109	0.02088029	0.97911971	0.88203819	1.843859247
C1orf115	0.02086361	0.97913639	0.680589004	1.602906889
C1orf116	0.020842134	0.979157866	-0.79393214	0.574935237
C1orf131	0.020813396	0.979186604	0.782564685	1.721309567
C1orf145	0.020784038	0.979215962	1.789169906	3.479812941
C1orf159	0.020714805	0.979285195	-1.915311472	0.242014518
C1orf204	0.020688832	0.979311168	-1.669973755	0.297674603
C1orf43	0.020629536	0.979370464	0.816985244	1.764422113
C1QBP	0.020604947	0.979395053	-0.685340803	0.621564302
C1QBPP2	0.020599418	0.979400582	0.718177267	1.645379305
C1QTNF6	0.020595708	0.979404292	-1.787538013	0.265451884
C1R	0.020576814	0.979423186	0.96629675	1.954306181
C1S	0.020539981	0.979460019	-0.804880646	0.569551167
C20orf194	0.020415706	0.979584294	-2.261159293	0.171652922
C20orf27	0.020349224	0.979650776	-0.965313788	0.51204828
C21orf91-OT1	0.020342866	0.979657134	-1.055283513	0.475600046
C2CD4A	0.020186514	0.979813486	-1.49927054	0.333302445
C2orf61	0.020142691	0.979857309	-0.73268819	0.600463277
C2orf71	0.020114487	0.979885513	0.799102036	1.741390876
C2orf88	0.020094035	0.979905965	-1.099185918	0.464964975
C3	0.020089467	0.979910533	-1.967331446	0.246792517
C3orf62	0.020067979	0.979932021	0.604346493	1.521084862
C3orf70	0.020051382	0.979948618	-1.551119374	0.326690633
C4orf36	0.019915988	0.980084012	0.922308299	1.895479148
C4orf46	0.019858737	0.980141263	1.130056753	2.190792708
C5	0.019834126	0.980165874	-0.775267022	0.581285864
C5orf34	0.019829718	0.980170282	-0.661075954	0.631999405
C5orf46	0.019796449	0.980203551	-2.047772817	0.216494661
C6orf141	0.019748963	0.980251037	-1.450745242	0.363898675
C6orf15	0.019723626	0.980276374	-1.290652051	0.407384924
C6orf223	0.019665211	0.980334789	0.804180057	1.746852163
C6orf25	0.019664354	0.980335646	-0.953439341	0.512049098
C6orf48	0.019607005	0.980392995	-2.427139272	0.178725161
C7orf71	0.019583051	0.980416949	-1.033110586	0.485477194
C8orf33	0.019572556	0.980427444	1.214409453	2.321215397
C8orf59P2	0.019559736	0.980440264	-2.075772352	0.217814324
C9orf3	0.019502188	0.980497812	0.923997037	1.914050478
C9orf78	0.019488805	0.980511195	0.582063896	1.497708936
C9orf84	0.019481206	0.980518794	-0.638520357	0.642071018
C9orf85	0.019407734	0.980592266	1.737375203	3.388558389
C9orf9	0.019389985	0.980610015	0.668794055	1.58096213
CA1	0.019380228	0.980619772	-0.959622665	0.510840516
CA13	0.019348805	0.980651195	1.110750906	2.162452247
CA2	0.019341447	0.980658553	-2.938997188	0.127068229
CA3	0.019330858	0.980669142	0.641218804	1.560575466
CA5BP1	0.019328396	0.980671604	-1.9641019	0.22756672
CA8	0.019319302	0.980680698	-0.875048741	0.544666684
CA9	0.019282996	0.980717004	-0.810545049	0.569126157
CABLES1	0.019259351	0.980740649	-1.989279056	0.223480431
CACHD1	0.019219955	0.980780045	-0.582034314	0.667638
CACNA1C	0.019208742	0.980791258	-1.533140823	0.323568599
CACNA1C-AS4	0.019186256	0.980813744	-1.13156526	0.456062282
CACNA1C-IT3	0.019158695	0.980841305	-1.206312408	0.421246984
CACNA1D	0.019135091	0.980864909	4.194068852	19.28677187
CACNA1G	0.019123561	0.980876439	-0.709829503	0.611134783
CACYBPP1	0.019083923	0.980916077	-2.771074009	0.145982129
CAD	0.019079887	0.980920113	0.974908848	1.969187821
CADM3	0.019021457	0.980978543	-1.303533575	0.401519374
CALB1	0.019008434	0.980991566	-0.68987346	0.61968368
CALML3-AS1	0.018949499	0.981050501	1.313180756	2.508502763
CALML4	0.018942855	0.981057145	-1.059346536	0.479826327
CALR	0.018890284	0.981109716	0.766043166	1.701967669
CAMK2A	0.018871818	0.981128182	0.849957472	1.802713004
CAMK2N1	0.018825917	0.981174083	1.120144651	2.186450928
CAMKK1	0.018815119	0.981184881	-1.921149606	0.256960522
CAMSAP1	0.018748383	0.981251617	-1.974847249	0.253741721
CANX	0.01873604	0.98126396	-1.480999098	0.35370915
CAPN15	0.018470901	0.981529099	-0.968273849	0.510697678
CAPN2	0.018433407	0.981566593	-1.120902277	0.458998437
CAPN3	0.018376826	0.981623174	-1.220411871	0.424009825
CAPN5	0.01835473	0.98164527	1.167407261	2.270261184
CAPN8	0.018332688	0.981667312	-2.312168809	0.195844353
CAPN9	0.018327249	0.981672751	-2.492144673	0.150323594
CAPNS2	0.018237662	0.981762338	-1.013377669	0.495327512
CAPRIN2	0.018233836	0.981766164	2.015280947	4.108042608
CAPS2	0.018228139	0.981771861	1.077093351	2.110813526
CARD16	0.018215105	0.981784895	-0.65605916	0.634568328
CARD18	0.018183025	0.981816975	1.368715587	2.58456636
CARD8	0.018165975	0.981834025	0.652591975	1.575426008
CARD9	0.018161254	0.981838746	1.540294287	3.008944199
CARF	0.018148418	0.981851582	1.127138663	2.188150682
CARS	0.018133637	0.981866363	0.607523777	1.523971851
CARS2	0.018132443	0.981867557	1.358869427	2.603893803
CASC15	0.018121527	0.981878473	-1.595963131	0.3301602
CASC18	0.018121003	0.981878997	-3.32689723	0.098094515
CASC21	0.018091718	0.981908282	-2.580762552	0.138924681
CASK	0.018063741	0.981936259	-1.794802635	0.257927122
CASP14	0.018051581	0.981948419	-1.407549948	0.368191164
CASP1P2	0.018015491	0.981984509	-1.458578989	0.362926721

CASP8	0.01798089	0.98201911	-1.131728135	0.453627043
CAST	0.017953303	0.982046697	1.102428871	2.148319565
CAV2	0.017943704	0.982056296	-1.706209042	0.289731319
CBR1	0.017867419	0.982132581	-1.796856936	0.281164787
CBWD1	0.017819494	0.982180506	1.921716001	3.796829373
CBWD5	0.0178173	0.9821827	-2.367617844	0.159585559
CBX1P1	0.017752183	0.982247817	-2.730537949	0.105326013
CBX2	0.017750338	0.982249662	1.234863387	2.354906544
CCAT1	0.017729717	0.982270283	-3.684167077	0.044713292
CCBE1	0.01768147	0.98231853	1.088601786	2.127161601
CCDC113	0.017646149	0.982353851	-0.910248144	0.531984236
CCDC136	0.017630032	0.982369968	0.564278569	1.47954086
CCDC137	0.01760447	0.98239553	-0.928612888	0.521040536
CCDC138	0.017555318	0.982444682	-1.667712224	0.303024191
CCDC144NL-AS1	0.017551456	0.982448544	1.152081841	2.247970886
CCDC146	0.017542269	0.982457731	0.783936212	1.72535956
CCDC148	0.017532216	0.982467784	-2.038800518	0.24282645
CCDC150	0.01747502	0.98252498	-2.079795363	0.236358964
CCDC150P1	0.017464779	0.982535221	0.881847131	1.843424895
CCDC158	0.01746043	0.98253957	-1.180980206	0.43850388
CCDC167	0.017411521	0.982588479	-1.541689837	0.339660755
CCDC169	0.017345982	0.982654018	-3.954376975	0.060006746
CCDC180	0.017228094	0.982771906	-3.06209325	0.113213568
CCDC191	0.017199199	0.982800801	0.639283161	1.558033984
CCDC25	0.01712838	0.98287162	-2.1343412	0.225722836
CCDC3	0.017059887	0.982940113	0.890353197	1.854373388
CCDC30	0.017044092	0.982955908	-0.797470176	0.57356492
CCDC36	0.016999918	0.983000082	1.231342189	2.372288786
CCDC51	0.016999841	0.983000159	1.112538073	2.186933673
CCDC53	0.016987963	0.983012037	0.593433738	1.509535715
CCDC58	0.016921332	0.983078668	0.880341076	1.84152129
CCDC59	0.01689414	0.98310586	1.007998007	2.011949412
CCDC64	0.016808987	0.983191013	1.84132857	3.835343716
CCDC67	0.01679184	0.98320816	-1.005094021	0.492307404
CCDC68	0.016753441	0.983246559	-1.022790703	0.489462768
CCDC7	0.016716055	0.983283945	-1.332617144	0.39676037
CCDC78	0.016692714	0.983307286	-1.162515243	0.446547196
CCDC80	0.016647188	0.983352812	-1.22896902	0.426359193
CCDC85C	0.016624564	0.983375436	-1.77804108	0.272356025
CCDC86	0.016545788	0.983454212	1.241938435	2.366968302
CCDC88C	0.016542618	0.983457382	0.817537517	1.765269323
CCL28	0.016534176	0.983465824	-1.120829195	0.459747502
CCL5	0.016435422	0.983564578	1.125211884	2.181933364
CCNA1	0.016378953	0.983621047	-1.263609166	0.410923764
CCNB1	0.01637718	0.98362282	1.706532455	3.436276768
CCNB1IP1	0.016337311	0.983662689	-1.989436696	0.250482666
CCNB2	0.016318929	0.983681071	-2.992876621	0.077431354
CCND1	0.016286248	0.983713752	-0.690806538	0.619088702
CCNDBP1	0.016262889	0.983737111	0.900546318	1.868346915
CCNE1	0.016258766	0.983741234	-1.985713803	0.222957413
CCNF	0.016251184	0.983748816	1.065188601	2.095641319
CCNG1	0.016238423	0.983761577	1.057288439	2.081140893
CCNL2P1	0.016220971	0.983779029	0.949187472	1.931042068
CCPG1	0.016193333	0.983806667	1.33450603	2.526720741
CCR1	0.016182745	0.983817255	-0.830691993	0.561748031
CCR3	0.016179258	0.983820742	-0.8393065	0.558480442
CCR5	0.016165649	0.983834351	-1.530561318	0.344150596
CCT2	0.01616221	0.98383779	-1.042817721	0.485317216
CCT3	0.016106011	0.983893989	0.783904466	1.722012228
CCT5	0.016102234	0.983897766	-0.661134559	0.632023758
CCT6A	0.01606724	0.98393276	-2.904236131	0.082626547
CCT7	0.016055526	0.983944474	0.593048727	1.50887626
CCT8	0.016030371	0.983969629	-2.432744168	0.184187169
CCT8P1	0.016002372	0.983997628	-1.951110773	0.250875675
CD109	0.015911405	0.984088595	1.305863063	2.489887867
CD14	0.01582737	0.98417263	-2.159380446	0.188213182
CD160	0.015783374	0.984216626	-1.538122422	0.342028179
CD180	0.015766	0.984234	0.849894551	1.803608498
CD200	0.015749853	0.984250147	-0.56321917	0.676570362
CD200R1	0.015713648	0.984286352	-1.642555132	0.311841046
CD207	0.01570997	0.98429003	-0.761475233	0.588312414
CD320	0.015708839	0.984291161	1.038351453	2.079348916
CD3EAP	0.015702076	0.984297924	-2.217928359	0.200156985
CD40	0.015678405	0.984321595	-0.647240071	0.638439224
CD59	0.015644236	0.984355764	1.132048827	2.213238329
CD72	0.01561865	0.98438135	-1.011781176	0.491972629
CD96	0.015599662	0.984400338	-1.198574462	0.424942288
CD99P1	0.01559808	0.98440192	-0.777324375	0.581817116
CDC123	0.015581139	0.984418861	-2.073963286	0.236777475
CDC14A	0.015567047	0.984432953	1.737970974	3.411596883
CDC20	0.015561424	0.984438576	-0.962582015	0.512736339
CDC20B	0.015521538	0.984478462	-1.708499547	0.303807718
CDC25A	0.015501272	0.984498728	-1.325308855	0.392190792
CDC25C	0.015488556	0.984511444	-1.275516389	0.411955372
CDC42EP1	0.015458196	0.984541804	1.607839879	3.097216599
CDC42EP3	0.015454676	0.984545324	-0.916074097	0.529846481
CDC45	0.015397293	0.984602707	-1.253721765	0.417764127
CDC6	0.01530741	0.98469259	-0.699999356	0.614232483
CDCA2	0.015292952	0.984707048	1.772414013	3.709658988
CDCA3	0.01526621	0.98473379	-0.832642374	0.56089953
CDCA4	0.015233161	0.984766839	1.30589626	2.478222647
CDCA5	0.015197904	0.984802096	-2.247183894	0.188225224
CDCA7	0.015194872	0.984805128	2.571990278	7.507323458

CDCA7L	0.015190859	0.984809141	-0.935904519	0.522465683
CDCA8	0.015110202	0.984889798	-1.333323588	0.385812139
CDH11	0.015101953	0.984898047	-0.970899266	0.506148029
CDH13	0.015088119	0.984911881	-0.775190493	0.581508019
CDH19	0.015082838	0.984917162	2.784640156	7.968533381
CDK14	0.015048323	0.984951677	1.070221956	2.110941416
CDK20	0.015037389	0.984962611	-0.766502706	0.586202517
CDK4	0.015035835	0.984964165	0.534252064	1.450019471
CDK5RAP1	0.014960703	0.985039297	-0.956235691	0.515223912
CDK7	0.014946119	0.985053881	0.819301276	1.765217702
CDKL1	0.014912436	0.985087564	1.248076486	2.390647442
CDKL5	0.014900384	0.985099616	2.78873676	9.97300417
CDKN1C	0.014796757	0.985203243	0.904128955	1.87161676
CDKN3	0.014781149	0.985218851	-1.647698594	0.311528288
CDT1	0.014780706	0.985219294	-2.250485525	0.183382542
CEACAM1	0.014768708	0.985231292	-1.263368022	0.415541376
CEACAM6	0.014753159	0.985246841	-0.898780381	0.5358206
CEBPB	0.014745762	0.985254238	1.486548555	2.818602964
CEBPZ	0.014745655	0.985254345	-1.976968321	0.25164847
CECR5	0.014719178	0.985280822	0.815120761	1.759624223
CEL	0.014661131	0.985338869	1.315813366	2.500199553
CELF2	0.014613087	0.985386913	-0.955900929	0.511495556
CEMIP	0.014571926	0.985428074	0.58954866	1.505369523
CENPA	0.014549082	0.985450918	1.324243795	2.534227924
CENPBD1P1	0.014548855	0.985451145	-3.358942053	0.090388422
CENPH	0.014505723	0.985494277	-2.357450772	0.169130158
CENPM	0.01448747	0.98551253	-2.232266501	0.212552373
CENPN	0.014487194	0.985512806	-1.060660746	0.478367691
CENPO	0.014476526	0.985523474	1.287289779	2.451513236
CENPP	0.014436947	0.985563053	-2.684577175	0.139980827
CENPV	0.014434258	0.985565742	-1.052928174	0.481602278
CENPW	0.014388856	0.985611144	0.706634409	1.634565339
CEP126	0.014361692	0.985638308	-2.144968177	0.224198212
CEP164P1	0.014299858	0.985700142	0.737733807	1.671782564
CEP250	0.014270189	0.985729811	0.609028769	1.527980994
CEP295NL	0.01424484	0.98575516	0.700017862	1.625131887
CEP72	0.014236449	0.985763551	0.680604103	1.603378905
CEP85	0.014203974	0.985796026	0.870126313	1.828049466
CERS2	0.014200185	0.985799815	1.592723644	3.053740841
CES1	0.0141967	0.9858033	1.054435851	2.077034826
CES3	0.014189489	0.985810511	-2.13419552	0.213964898
CFAP20	0.014171998	0.985828002	0.749053768	1.681791564
CFAP53	0.01414753	0.98585247	-1.270962229	0.404497127
CFAP70	0.014124772	0.985875228	0.680107093	1.602927657
CFAP97	0.014078849	0.985921151	-1.954282721	0.254045387
CFB	0.014063495	0.985936505	-1.375232312	0.385270461
CFL1	0.014056425	0.985943575	0.858010523	1.812787508
CFL1P3	0.013985073	0.986014927	-2.702479828	0.143426972
CFLAR	0.013978969	0.986021031	-2.013986443	0.216079464
CFLAR-AS1	0.013928916	0.986071084	-0.7994711	0.574472707
CFTR	0.013911992	0.986088008	-0.980398814	0.504925701
CGNL1	0.013888939	0.986111061	0.760158695	1.694234032
CGREF1	0.013838572	0.986161428	1.121291784	2.176431502
CH17-140K24.3	0.013796272	0.986203728	-1.210871399	0.426367859
CH17-140K24.5	0.013761859	0.986238141	-1.191942821	0.43125728
CH17-140K24.6	0.013734168	0.986265832	-1.448628724	0.354870302
CH17-360D5.3	0.013704359	0.986295641	-1.514593239	0.342160843
CH17-373J23.1	0.013695535	0.986304465	2.106681839	4.673831109
CH17-76K2.6	0.01367005	0.98632995	0.557286753	1.472907477
CH507-154B10.2	0.013587746	0.986412254	0.835200898	1.794647297
CH507-513H4.1	0.013587365	0.986412635	2.042469423	4.348984201
CHAC2	0.013573891	0.986426109	-1.049626638	0.482553712
CHAF1A	0.013500173	0.986499827	-1.102489482	0.465578873
CHAF1B	0.013491439	0.986508561	0.726282613	1.658861447
CHCHD2	0.013453303	0.986546697	1.008256828	2.012130884
CHCHD4	0.013444091	0.986555909	-0.845318847	0.555996069
CHD1L	0.013421272	0.986578728	0.554850326	1.469060647
CHD6	0.013383511	0.986616489	-0.722322931	0.603485326
CHD7	0.013358685	0.986641315	-1.034843528	0.487434352
CHEK2	0.013356856	0.986643144	-2.434469695	0.147569215
CHKA	0.01334744	0.98665256	1.028394666	2.042363463
CHL1	0.013278457	0.986721543	-2.755070713	0.144977208
CHODL	0.013270227	0.986729773	-2.08688779	0.234640157
CHODL-AS1	0.013268468	0.986731532	1.005494745	2.017022806
CHPT1	0.013244051	0.986755949	0.895806125	1.865463612
CHRM3	0.013243899	0.986756101	-0.803009086	0.572275608
CHRM3-AS2	0.013240604	0.986759396	-1.648938856	0.298898647
CHST1	0.013212752	0.986787248	-0.58031839	0.668721773
CHST10	0.013211835	0.986788165	-1.014237183	0.493543413
CHST11	0.013152043	0.986847957	0.602599133	1.521278143
CHST15	0.013151213	0.986848787	1.372852513	2.665731119
CHST2	0.013097677	0.986902323	1.076068642	2.116095082
CHST4	0.013065531	0.986934469	1.067651847	2.097939035
CHST9	0.013037605	0.986962395	-1.576027389	0.331023959
CIAPIN1	0.013030647	0.986969353	-0.97362196	0.508596579
CIB1	0.01300654	0.98699346	1.019648259	2.031972456
CIB4	0.012998006	0.987001994	-0.983133213	0.502005904
CILP	0.012950197	0.987049803	-2.334597641	0.197456993
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CIRH1A	0.012865836	0.987134164	-2.467202814	0.141676395
CISD1	0.012816316	0.987183684	-2.671091397	0.142809335
CISD3	0.012816288	0.987183712	0.871389302	1.830131996

CIT	0.012794454	0.987205546	-1.654530362	0.316979822
CKMT1A	0.01279074	0.98720926	-1.769182187	0.274542097
CKMT1B	0.012737069	0.987262931	-1.29383858	0.394366369
CKS1B	0.012726036	0.987273964	0.57945487	1.497041871
CKS2	0.012662285	0.987337715	-0.782567686	0.57913664
CLCA3P	0.012660613	0.987339387	1.190364004	2.283708038
CLCN2	0.012654345	0.987345655	-1.348018472	0.381479038
CLDN18	0.012644115	0.987355885	-1.365144658	0.38815098
CLDN8	0.012599618	0.987400382	-0.706565749	0.612472601
CLEC1A	0.012577778	0.987422222	2.24760697	4.762717322
CLEC2D	0.012569126	0.987430874	0.628227021	1.54830246
CLEC4F	0.01255657	0.98744343	1.449075896	2.732258804
CLEC7A	0.012543524	0.987456476	-1.370025416	0.372392836
CLGN	0.012531837	0.987468163	-1.991094861	0.235547436
CLIC1	0.012485253	0.987514747	-1.453934869	0.353171505
CLIC5	0.012477857	0.987522143	-0.884820189	0.53969179
CLIP1	0.012422793	0.987577207	-1.467708344	0.360311347
CLIP1-AS1	0.012389686	0.987610314	-0.67388617	0.624971992
CLIP4	0.012386956	0.987613044	0.784436204	1.723981914
CLMP	0.012270996	0.987729004	-1.799994722	0.286369394
CLN6	0.012220685	0.987779315	0.951987608	1.945053666
CLN8	0.01221418	0.98778582	-0.999347077	0.498451144
CLNS1A	0.012174234	0.987825766	-2.395078709	0.167371945
CLP1	0.012125813	0.987874187	-0.89458453	0.537494113
CLPB	0.012113869	0.987886131	1.368048281	2.620199525
CLPP	0.012107103	0.987892897	-0.876763393	0.54405886
CLPTM1L	0.012098001	0.987901999	3.265463382	12.9329706
CLPX	0.012061529	0.987938471	1.927990301	4.166662733
CLUHP3	0.012005893	0.987994107	0.876221983	1.836022623
CLUL1	0.01198396	0.98801604	-1.409937055	0.375673668
CMAHP	0.011875375	0.988124625	1.065780535	2.106117949
CMPK2	0.011873722	0.988126278	0.746275129	1.681302967
CMSS1	0.011873235	0.988126765	-1.12699143	0.457723821
CMTM3	0.011861721	0.988138279	-1.249557397	0.41138534
CMTM7	0.011834046	0.988165954	0.853293924	1.807832597
CNBP	0.011827447	0.988172553	0.830780689	1.779100814
CNDP2	0.011781436	0.988218564	1.232215243	2.349622309
CNGA1	0.011777517	0.988222483	0.819203739	1.76625335
CNIH3	0.0117317	0.9882683	0.71489956	1.646097853
CNP	0.011692658	0.988307342	-0.587373955	0.665197103
CNPY2	0.011682199	0.988317801	1.492515082	2.88348482
CNTNAP2	0.011681882	0.988318118	1.723546328	3.465025172
CNTRL	0.011639292	0.988360708	-0.566853846	0.674954302
COA4	0.011604666	0.988395334	0.860067181	1.815453749
COA7	0.011593144	0.988406856	-0.606975797	0.65525226
COL17A1	0.011557191	0.988442809	-1.387993744	0.375444026
COL21A1	0.011543931	0.988456069	1.025609333	2.036112486
COL25A1	0.011541567	0.988458433	0.61688618	1.534499034
COL4A3BP	0.01154047	0.98845953	-2.337018382	0.170912088
COL8A1	0.011505807	0.988494193	0.863384182	1.825551118
COL8A2	0.011494615	0.988505385	0.605312036	1.522228952
COL9A3	0.011385592	0.988614408	-0.629145013	0.646060453
COLCA1	0.011376037	0.988623963	-1.387905112	0.381623901
COLGALT1	0.01129589	0.98870411	-0.980005435	0.502579146
COLGALT2	0.011283517	0.988716483	1.005683391	2.008885529
COMMD4	0.011248115	0.988751885	0.774369089	1.717678709
COMP	0.01123798	0.98876202	-1.063097445	0.477030155
COMTD1	0.011231445	0.988768555	1.803250176	3.752897302
COPRS	0.011216928	0.988783072	0.795920268	1.737006218
COPS3	0.011172401	0.988827599	1.257757656	2.40386287
COPS6	0.01116283	0.98883717	-2.449973488	0.18094332
COPZ1	0.011143545	0.988856455	1.139450834	2.213211115
COPZ2	0.011143438	0.988856562	-2.738257155	0.141943291
COQ2	0.0111402	0.9888598	1.272388562	2.421525645
COQ3	0.011130568	0.988869432	1.067847343	2.097798305
CORO2A	0.011088614	0.988911386	0.811246134	1.754870505
CORO2B	0.011077091	0.988922909	-2.156939425	0.217019383
COTL1	0.011050104	0.988949896	0.670807977	1.594245024
COX14	0.011043745	0.988956255	1.05760381	2.105439738
COX4I1	0.010980506	0.989019494	0.832235983	1.781157812
COX5A	0.010917972	0.989082028	1.081830263	2.14075718
COX5B	0.010910987	0.989089013	-1.066577479	0.477382554
COX6B1	0.010898533	0.989101467	0.587334007	1.502842301
COX6C	0.010879379	0.989120621	0.794852216	1.735974246
COX7A2L	0.010839998	0.989160002	-1.631169484	0.308612153
COX7B	0.010825958	0.989174042	-2.08744993	0.216049959
COX7C	0.010816783	0.989183217	0.811594306	1.759076672
COX8A	0.010805646	0.989194354	-2.124668666	0.203118693
CPEB2	0.01080059	0.98919941	0.728379103	1.658367017
CPEB2-AS1	0.010791621	0.989208379	-1.912018328	0.262357437
CPEB3	0.010784718	0.989215282	1.132059138	2.195983359
CPNE2	0.01076455	0.98923545	0.782923945	1.720856714
CPNE7	0.010737382	0.989262618	-2.282085618	0.188822177
CPPED1	0.010686431	0.989313569	1.071075817	2.112809635
CPQ	0.010684283	0.989315717	-0.880907172	0.539206488
CPSF3	0.010661389	0.989338611	-0.841779818	0.557299602
CPT1A	0.010628739	0.989371261	-1.295435481	0.404983308
CPT1C	0.010593945	0.989406055	-3.019998584	0.112832483
CPT2	0.010580541	0.989419459	0.709047319	1.635913166
CPVL	0.010569981	0.989430019	0.690286811	1.614124024
CREB3L2	0.010559854	0.989440146	1.13957438	2.216516989
CREB5	0.010532615	0.989467385	0.923391748	1.896831244
CREBRF	0.010492101	0.989507899	-1.917960174	0.25719745

CRIM1	0.010465516	0.989534484	-3.358699333	0.07647065
CRISP3	0.010454715	0.989545285	0.976106838	1.967365455
CRISPLD1	0.010395299	0.989604701	-1.107755821	0.463144673
CRMP1	0.01033552	0.98966448	2.798105465	9.087866799
CROCCP3	0.010282885	0.989717115	-1.991616788	0.24806432
CRTAP	0.010266384	0.989733616	-1.305827965	0.401627113
CRYM-AS1	0.01026302	0.98973698	1.475609248	2.854642137
CS	0.010218786	0.989781214	-0.55673323	0.679813638
CSE1L	0.010205183	0.989794817	-3.088452738	0.114694139
CSF1	0.01019515	0.98980485	1.308340098	2.476876995
CSGALNACT1	0.010164239	0.989835761	-0.864458996	0.547017707
CSPG5	0.010150672	0.989849328	-0.703318114	0.613979431
CSRNP1	0.010131199	0.989868801	1.456030125	2.744325746
CSRNP2	0.010088502	0.989911498	0.842609379	1.793549634
CSTB	0.010087336	0.989912664	-2.297927385	0.185747765
CTA-360L10.1	0.010086112	0.989913888	-2.763104842	0.139674496
CTA-392C11.1	0.010068673	0.989931327	2.084848003	4.724925885
CTA-392E5.1	0.010065691	0.989934309	-0.914190641	0.530472669
CTA-398F10.2	0.010063263	0.989936737	-0.742559926	0.597652515
CTA-445C9.14	0.010059131	0.989940869	-1.253652195	0.419150378
CTB-113P19.1	0.010056648	0.989943352	0.655520739	1.575721597
CTB-174D11.1	0.010052544	0.989947456	1.238140996	2.397250726
CTB-174D11.2	0.010044582	0.989955418	1.209414786	2.314742455
CTB-50L17.14	0.010019378	0.989980622	0.755526867	1.688995366
CTB-55O6.8	0.010001664	0.989998336	-1.569802226	0.326503653
CTB-73N10.1	0.009959305	0.990040695	1.325109868	2.505878434
CTB-92J24.3	0.009930518	0.990069482	0.586397078	1.50471353
CTC-203F4.2	0.009922459	0.990077541	0.903854899	1.871936391
CTC-204F22.1	0.009915436	0.990084564	-0.946980491	0.517777416
CTC-236F12.4	0.009911999	0.990088001	0.581403864	1.496846091
CTC-251D13.1	0.009902137	0.990097863	2.315058078	5.254761852
CTC-254B4.1	0.009897708	0.990102292	-1.50874678	0.351161828
CTC-301O7.4	0.009870502	0.990129498	-1.605163291	0.327920171
CTC-321K16.1	0.009849158	0.990150842	-3.955718708	0.043201122
CTC-321K16.4	0.009842948	0.990157052	-3.472850781	0.089262219
CTC-325H20.4	0.009841599	0.990158401	0.802390684	1.745570346
CTC-325H20.7	0.009828618	0.990171382	-0.903596631	0.532947469
CTC-327F10.4	0.009827644	0.990172356	0.768579507	1.703878194
CTC-327F10.5	0.00980684	0.99019316	-1.032096141	0.488290196
CTC-344H19.6	0.0097971	0.9902029	0.869528032	1.829618178
CTC-455F18.1	0.009773778	0.990226222	-1.071775495	0.469600553
CTC-459M5.1	0.009746914	0.990253086	-1.652463482	0.305340842
CTC-490E21.11	0.009732557	0.990267443	1.158729925	2.232659446
CTC-498M16.2	0.009651397	0.990348603	1.151398581	2.236490335
CTC-523E23.5	0.00965116	0.99034884	0.793311411	1.734618376
CTC-558O2.1	0.00957064	0.99042936	0.660857933	1.582122041
CTC-806A22.1	0.009538374	0.990461626	-2.399824449	0.143658518
CTD-2002H8.2	0.009532006	0.990467994	-1.02841352	0.489259355
CTD-2008L17.2	0.009518461	0.990481539	-1.955538703	0.254214741
CTD-2015A6.1	0.009509195	0.990490805	-1.261501277	0.415980956
CTD-2015A6.2	0.009484813	0.990515187	-0.906023452	0.530827583
CTD-2015G9.2	0.009431868	0.990568132	1.069753323	2.104907462
CTD-2016O11.1	0.009361657	0.990638343	-0.821745536	0.562755363
CTD-2017D11.1	0.009341447	0.990658553	-0.8975913	0.536735077
CTD-2017D11.2	0.009339576	0.990660424	0.850411233	1.804596123
CTD-2024I7.18	0.009302838	0.990697162	-1.109788711	0.462553899
CTD-2027I19.2	0.00929443	0.99070557	-1.951071736	0.247270922
CTD-2027I19.3	0.009268453	0.990731547	-3.204057588	0.094098848
CTD-2033D15.2	0.0091849	0.9908151	0.783014079	1.725914646
CTD-2066L21.3	0.009138835	0.990861165	-0.921764328	0.525354172
CTD-2171N6.1	0.009133447	0.990866553	-1.061356125	0.475058622
CTD-2192J16.26	0.009119817	0.990880183	0.914307634	1.885607315
CTD-2201E18.3	0.00909613	0.99090387	0.974402608	1.966713345
CTD-2201E9.1	0.009078543	0.990921457	1.44219323	2.739009731
CTD-2201E9.2	0.009074402	0.990925598	0.542528076	1.456637435
CTD-2206N4.4	0.009029254	0.990970746	-0.535531413	0.688914683
CTD-2216M2.1	0.009014551	0.990985449	0.544625138	1.458814666
CTD-2260A17.1	0.00900989	0.99099011	-1.0882897	0.469777629
CTD-2260A17.2	0.00900655	0.99099345	1.105187035	2.152349743
CTD-2265D6.2	0.008993279	0.991006721	-0.950771392	0.513849609
CTD-2270P14.1	0.0089579	0.9910421	-2.221030878	0.1793612
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CTD-2280E9.1	0.008909878	0.991090122	-3.038859826	0.107419021
CTD-2303H24.2	0.008887851	0.991112149	-1.084168828	0.468697502
CTD-2325P2.4	0.008824996	0.991175004	-0.721950968	0.605654739
CTD-2337A12.1	0.008786169	0.991213831	-0.872564767	0.545981566
CTD-2368P22.1	0.008776979	0.991223021	-0.749187568	0.594622446
CTD-2373H9.3	0.008740768	0.991259232	-0.719480049	0.606580359
CTD-2373H9.5	0.008738228	0.991261772	-0.77937113	0.581317171
CTD-2510F5.4	0.008735244	0.991264756	-2.53375525	0.162536617
CTD-2515H24.2	0.008725537	0.991274463	1.310668709	2.486490158
CTD-2515H24.4	0.008713654	0.991286346	0.806032419	1.7524089
CTD-2516F10.2	0.00870165	0.99129835	0.853524782	1.807077864
CTD-2540L5.9	0.008696017	0.991303983	0.748370266	1.683716245
CTD-2541J13.1	0.008680894	0.991319106	-1.514790081	0.341975664
CTD-2544H17.1	0.008665394	0.991334606	-1.982234926	0.233450753
CTD-2561J22.5	0.00865216	0.99134784	0.703427848	1.629967388
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CTD-2566J3.1	0.008632419	0.991367581	1.840702314	3.584011242
CTD-2623N2.3	0.008619276	0.991380724	-1.332091151	0.387027236
CTD-2626G11.2	0.008609888	0.991390112	-1.833450336	0.276924554
CTD-2653D5.1	0.008598378	0.991401622	-1.207802341	0.428249902
CTD-3014M21.1	0.0085961	0.9914039	0.658806851	1.578969469

CTD-3051D23.1	0.00854429	0.99145571	-2.602136746	0.134319089
CTD-3193O13.12	0.00853097	0.99146903	-1.64172545	0.319747346
CTD-3216D2.5	0.008526156	0.991473844	-1.762738783	0.281993432
CTD-3247F14.2	0.008464678	0.991535322	1.091848711	2.141871092
CTD-3247H4.2	0.008447184	0.991552816	-1.91628555	0.253393919
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CXCR4	0.0082518	0.9917482	-1.290138538	0.407808827
CXorf23	0.008236795	0.991763205	-1.239716167	0.414456614
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CYB561D1	0.008221643	0.991778357	0.928752146	1.903833958
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CYB5A	0.008157525	0.991842475	1.222153967	2.333711301
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CYBRD1	0.008128242	0.991871758	-2.088891942	0.213993473
CYC1	0.008125714	0.991874286	0.568521457	1.483379702
CYCS	0.008121779	0.991878221	0.51938972	1.433434567
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CYP27B1	0.00810736	0.99189264	-1.273304931	0.410700133
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CYP39A1	0.008019257	0.991980743	-2.857713979	0.122055061
CYP3A4	0.007993075	0.992006925	-1.080035905	0.470558636
CYP4A11	0.007969728	0.992030272	0.573918189	1.490179573
CYP4B1	0.007963608	0.992036392	1.998208002	4.05991051
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CYTIP	0.007903693	0.992096307	-1.329202278	0.394433477
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DAB2	0.007891992	0.992108008	-1.439257233	0.366007421
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DAP3	0.007822896	0.992177104	-1.027620667	0.490392722
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DAPK1	0.007807534	0.992192466	1.212596561	2.32153688
DAPK1-IT1	0.007799833	0.992200167	-1.535429623	0.343267207
DAPL1	0.007767976	0.992232024	-0.545899531	0.684016191
DAZAP1	0.007767636	0.992232364	0.844035597	1.795640515
DBF4	0.007717537	0.992282463	0.825290977	1.7721678
DBF4B	0.007684637	0.992315363	-0.905296985	0.531662732
DBI	0.007684614	0.992315386	0.779489352	1.717307593
DBNDD1	0.007663528	0.992336472	1.133729036	2.19553322
DCAF13	0.007661374	0.992338626	-1.78501688	0.288467708
DCAF4	0.007640699	0.992359301	0.872341682	1.833046186
DCBLD1	0.007624938	0.992375062	0.548667947	1.463088635
DCD	0.007615893	0.992384107	-1.635509472	0.317882637
DCHS2	0.00761383	0.99238617	0.909745493	1.878986201
DCLK2	0.007586017	0.992413983	-2.235563174	0.204876657
DCLRE1B	0.007582774	0.992417226	-1.456535934	0.361505988
DCTD	0.007578946	0.992421054	-1.82179545	0.280450911
DCTPP1	0.007567272	0.992432728	0.641062288	1.560306644
DCUN1D2	0.007560138	0.992439862	-3.8084941	0.05495504
DCUN1D5	0.007535498	0.992464502	-2.694437053	0.12286014
DCX	0.007531951	0.992468049	0.73575973	1.67168049
DCXR	0.007518911	0.992481089	-0.753854585	0.592884284
DDAH2	0.007504433	0.992495567	1.083636009	2.120651396
DDB1	0.007443019	0.992556981	0.668238619	1.589745628
DDIT4	0.007412862	0.992587138	0.761941162	1.695909662
DDOST	0.007385763	0.992614237	0.68577399	1.612998653
DDX10	0.007356274	0.992643726	-1.547536474	0.33483061
DDX11	0.007297262	0.992702738	-1.946723082	0.254565261
DDX12P	0.00726761	0.99273239	-1.057932159	0.480102705
DDX18	0.007253559	0.992746441	0.9447219	1.924999156
DDX21	0.007235601	0.992764399	-2.14303488	0.195605102
DDX23	0.007206483	0.992793517	0.866695341	1.823855638
DDX24	0.007187522	0.992812478	0.87436989	1.845723102
DDX27	0.007183433	0.992816567	0.962797827	1.964066248
DDX28	0.007168381	0.992831619	-1.098550746	0.463236184
DDX39A	0.007145888	0.992854112	-0.845342081	0.553519399
DDX3P1	0.007143689	0.992856311	-2.318848684	0.175875617
DDX41	0.007140279	0.992859721	-0.682700204	0.622854645
DDX46	0.007138471	0.992861529	-1.384981913	0.378388931
DDX47	0.007128075	0.992871925	-1.114531434	0.459997043
DDX49	0.007127425	0.992872575	-1.937155251	0.260374305

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DECR2	0.007043018	0.992956982	-1.857793383	0.262352999
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DESI1	0.006959061	0.993040939	1.020092065	2.042021448
DFFA	0.006950692	0.993049308	-1.403343623	0.371439908
DFFB	0.006924261	0.993075739	1.243891211	2.36823765
DFNB59	0.006922534	0.993077466	-1.264029009	0.412188556
DGAT2	0.006916745	0.993083255	-2.221309996	0.185706594
DGKA	0.006916622	0.993083378	1.131868237	2.193248622
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DHODH	0.006855719	0.993144281	-2.09545429	0.222699729
DHRS12	0.006812601	0.993187399	-2.65091609	0.129085102
DHRS2	0.006805488	0.993194512	2.524090594	5.924560857
DHRS4	0.006800818	0.993199182	1.141586154	2.207022375
DHRS4L2	0.006733944	0.993266056	1.045744753	2.065609848
DHRS7B	0.006725897	0.993274103	-1.097480472	0.464688685
DHRSX	0.006707498	0.993292502	-0.700094778	0.613310802
DHTKD1	0.006704169	0.993295831	1.449534218	2.752174896
DHX30	0.006691009	0.993308991	1.07120901	2.101794743
DHX33	0.006625269	0.993374731	-0.811259912	0.569730062
DHX34	0.006604578	0.993395422	-1.01864726	0.493410666
DHX37	0.006590655	0.993409345	-0.587071586	0.665570313
DHX58	0.006581707	0.993418293	-1.272173245	0.412167808
DIAPH1	0.006568802	0.993431198	-0.753039831	0.592364285
DIEXF	0.00654595	0.99345405	1.595726358	3.025469284
DIMT1	0.006535607	0.993464393	1.106149908	2.154891521
DIP2C	0.006530434	0.993469566	1.049256867	2.069956215
DIRAS1	0.006517465	0.993482535	-2.050291428	0.240677861
DIS3L	0.006502566	0.993497434	-1.404844305	0.377647061
DISP1	0.006493724	0.993506276	-2.550383309	0.170272391
DKC1	0.006488547	0.993511453	-1.253976844	0.410650618
DKK3	0.006468772	0.993531228	0.892237038	1.856636209
DLAT	0.00645585	0.99354415	0.83692181	1.787248991
DLG2	0.006453456	0.993546544	-0.743887461	0.596617228
DLG3	0.006432473	0.993567527	0.793381967	1.736073026
DLGAP1-AS1	0.006430135	0.993569865	-0.892573358	0.538032467
DLGAP1-AS5	0.006425444	0.993574556	-1.044165884	0.481107019
DLGAP4-AS1	0.00641036	0.99358964	0.854790106	1.809482768
DLGAP5	0.006405054	0.993594946	-0.713099863	0.609689209
DLL1	0.006397844	0.993602156	1.218169614	2.347071278
DMD	0.006395283	0.993604717	-0.721811537	0.604920999
DMKN	0.006389645	0.993610355	-0.584573019	0.666265121
DNAAF5	0.006370104	0.993629896	0.56085946	1.475473462
DNAH10OS	0.006320146	0.993679854	-2.731587011	0.123359334
DNAH11	0.006301712	0.993698288	1.027729961	2.040916206
DNAH5	0.00629086	0.99370914	1.997802917	3.994350579
DNAJA3	0.006273083	0.993726917	0.95017726	1.93329298
DNAJA4	0.006247364	0.993752636	-2.727697319	0.129650184
DNAJB12	0.006243169	0.993756831	-2.503151475	0.175047509
DNAJC11	0.006214895	0.993785105	0.831157874	1.779192109
DNAJC12	0.006194069	0.993805931	1.796074027	3.474036012
DNAJC2	0.006190499	0.993809501	0.857149855	1.812096891
DNALI1	0.006184535	0.993815465	1.350031199	2.5703128
DNHD1	0.006180571	0.993819429	1.149155181	2.223599119
DNM1	0.00615131	0.99384869	1.716475729	3.311694685
DNM1P51	0.006127374	0.993872626	0.715841259	1.643179022
DNMT1	0.006123158	0.993876842	-1.666419423	0.304558681
DNMT3B	0.006077064	0.993922936	0.596409924	1.512404559
DNPEP	0.006056111	0.993943889	-2.472669336	0.167396127
DNPH1	0.006045646	0.993954354	-3.9734563	0.042661388
DNTTIP2	0.005993174	0.994006826	-0.669333423	0.627853397
DOCK11	0.005966647	0.994033353	-1.753185511	0.282398667
DOCK5	0.005962915	0.994037085	0.696791391	1.621718467
DOCK8	0.005956339	0.994043661	-2.842496971	0.133755592
DOCK9	0.005940417	0.994059583	-0.611257728	0.653552068
DOCK9-AS1	0.005920699	0.994079301	-2.064212671	0.237074163
DPAGT1	0.005907078	0.994092922	0.796016953	1.73653721
DPCD	0.005890315	0.994109685	0.886003321	1.856209462
DPH2	0.005869382	0.994130618	0.684634101	1.608376869
DPH5	0.005866098	0.994133902	0.614522055	1.531340298
DPM2	0.005856334	0.994143666	-1.137462252	0.45442703
DPP3	0.005856239	0.994143761	1.100094092	2.147662647
DPY19L1P2	0.005845365	0.994154635	-1.616957915	0.319349707
DPYSL2	0.005837964	0.994162036	1.117472064	2.179046004
DQX1	0.00581074	0.99418926	-1.318792066	0.400446658
DRAXIN	0.005804919	0.994195081	-1.528341489	0.346523983
DRG1	0.005802937	0.994197063	0.564631055	1.47930075
DRG2	0.005781667	0.994218333	0.701229266	1.626088929
DSC1	0.005778798	0.994221202	-0.890198429	0.539496019
DSC2	0.005746868	0.994253132	0.840920005	1.793149627
DSC3	0.005746622	0.994253378	-2.579886533	0.137499779
DSG1	0.005738837	0.994261163	-0.717003337	0.60785128
DSG3	0.005706896	0.994293104	-1.884469523	0.263658831
DSG4	0.005704912	0.994295088	-2.953352707	0.127635298
DSP	0.005697741	0.994302259	-2.024852836	0.245008494
DST	0.005685119	0.994314881	-1.040527156	0.481954083
DSTNP1	0.005657825	0.994342175	0.737936666	1.670580409
DTD1	0.005647158	0.994352842	-1.871095694	0.272961323

DTD2	0.005636936	0.994363064	1.099462393	2.143057551
DTL	0.005628978	0.994371022	-1.33080454	0.39634542
DTNA	0.00561225	0.99438775	2.24758151	5.022953476
DTYMK	0.005607913	0.994392087	-0.909753642	0.532158184
DUOX1	0.005604386	0.994395614	-0.767773783	0.586301503
DUOX2	0.005581837	0.994418163	-1.180620308	0.438749216
DUOXA1	0.005578172	0.994421828	1.200364588	2.298425674
DUS2	0.005575796	0.994424204	-1.090618436	0.467664401
DUS3L	0.005569621	0.994430379	-0.780268013	0.58211117
DUSP14	0.005560112	0.994439888	0.589644127	1.507109888
DUSP18	0.005552512	0.994447488	-0.757333691	0.589732872
DUSP19	0.005550522	0.994449478	-0.710145496	0.611054925
DUSP22	0.005535016	0.994464984	0.797306193	1.744816533
DUSP4	0.005519547	0.994480453	-1.518157178	0.332559741
DZANK1	0.005499777	0.994500223	-2.437551927	0.154425802
E2F4	0.00546052	0.99453948	-3.346780697	0.095810877
E2F7	0.005435033	0.994564967	-1.761990003	0.277548718
E2F8	0.005432116	0.994567884	0.684615518	1.607529138
EARS2	0.005429341	0.994570659	1.02331622	2.033696983
EBNA1BP2	0.005408865	0.994591135	-0.892409635	0.538549495
EBPL	0.005394946	0.994605054	0.704657937	1.631197168
ECE2	0.005386938	0.994613062	-0.5310925	0.691160562
ECHDC3	0.005383828	0.994616172	-1.336167726	0.395601575
ECHS1	0.005373605	0.994626395	-2.395929858	0.187884461
EDAR	0.005361502	0.994638498	-1.463160444	0.362503532
EDIL3	0.005347805	0.994652195	1.336859261	2.568260651
EEF1A1	0.005333856	0.994666144	-1.763170401	0.284862854
EEF1A1P11	0.005305979	0.994694021	-3.8586823	0.067911201
EEF1A1P13	0.005280885	0.994719115	-2.36151078	0.168956352
EEF1A1P16	0.005279648	0.994720352	0.521209868	1.436689648
EEF1A1P19	0.005258535	0.994741465	-1.598697441	0.316716894
EEF1A1P30	0.005246118	0.994753882	1.680791844	3.255616614
EEF1B2	0.005242385	0.994757615	-1.951977477	0.258421219
EEF1B2P3	0.00523793	0.99476207	-1.485054548	0.353681132
EEF1D	0.005222535	0.994777465	1.32205731	2.557504918
EEF1DP3	0.005220077	0.994779923	-1.477439749	0.344441565
EEF1E1	0.0051539	0.9948461	-1.727749636	0.301281289
EEF2	0.005139964	0.994860036	1.160838165	2.237645251
EFCAB13	0.005136023	0.994863977	0.771975295	1.708619239
EFCAB6	0.005133068	0.994866932	-1.900380986	0.244355418
EFEMP1	0.00512092	0.99487908	1.101067598	2.171590948
EFHC1	0.005114422	0.994885578	0.843999518	1.795522717
EFHD2	0.005104027	0.994895973	1.454507899	2.785718306
EFNA5	0.005094783	0.994905217	-1.149600531	0.45061458
EFNB2	0.005091523	0.994908477	0.686220908	1.609331362
EFNB3	0.005081067	0.994918933	0.810154086	1.753613552
EFR3B	0.005080453	0.994919547	-1.266062174	0.413951248
EFTUD2	0.005079442	0.994920558	0.731686176	1.661109741
EGF	0.005061614	0.994938386	1.70381661	3.278402583
EGFLAM	0.005056709	0.994943291	0.99854281	1.998447302
EGFR	0.005051834	0.994948166	-2.712457212	0.14120626
EGFR-AS1	0.005037665	0.994962335	-1.573668991	0.334661767
EGR1	0.005021602	0.994978398	-1.32203477	0.396868808
EGR3	0.005020246	0.994979754	0.723701654	1.656114011
EHD3	0.004984001	0.995015999	0.587971305	1.505087368
EI24	0.00497998	0.99502002	0.539223237	1.453273371
EIF1AX	0.00494665	0.99505335	-1.928266352	0.259940443
EIF1B-AS1	0.004943971	0.995056029	-3.161387286	0.079824477
EIF2B1	0.004942244	0.995057756	-1.9109661	0.256759134
EIF2B3	0.004938881	0.995061119	1.478703555	2.794677172
EIF2B5	0.004932529	0.995067471	1.156081323	2.228687547
EIF2D	0.004931155	0.995068845	-0.994398239	0.501816459
EIF2S1	0.004906231	0.995093769	-1.279222774	0.411110676
EIF2S2	0.004905279	0.995094721	-1.135232036	0.452425122
EIF2S3	0.004902173	0.995097827	1.646110824	3.200641238
EIF2S3L	0.00489327	0.99510673	0.93386342	1.910718585
EIF3A	0.00489029	0.99510971	0.621604873	1.539149691
EIF3B	0.00488552	0.99511448	-1.368043954	0.387247464
EIF3C	0.004884213	0.995115787	0.80793005	1.750919043
EIF3D	0.004871838	0.995128162	1.047209249	2.067300294
EIF3E	0.004866721	0.995133279	-1.844298389	0.278380605
EIF3EP1	0.004835828	0.995164172	-1.768135041	0.291952827
EIF3F	0.004830306	0.995169694	-1.836825417	0.266286604
EIF3H	0.00482592	0.99517408	0.552758867	1.467755374
EIF3I	0.004823281	0.995176719	-1.405427121	0.371998551
EIF3K	0.00481152	0.99518848	0.530615772	1.445059076
EIF3L	0.004809884	0.995190116	-0.941808135	0.520361744
EIF3M	0.004801399	0.995198601	-2.45754934	0.146519362
EIF4A3	0.004778238	0.995221762	1.147755421	2.216974673
EIF4B	0.00477464	0.99522536	0.999448051	2.008785815
EIF4BP2	0.00474426	0.99525574	0.962085595	1.948924117
EIF4BP3	0.004743707	0.995256293	-1.149618739	0.448882061
EIF4BP6	0.004742815	0.995257185	-2.57356184	0.165334519
EIF4E	0.004738312	0.995261688	1.350529792	2.601056421
EIF4E3	0.004718449	0.995281551	1.476912354	2.873147064
EIF4EBP1	0.004718329	0.995281671	-2.030102833	0.24232061
EIF4EP2	0.004701546	0.995298454	0.9136272	1.885402535
EIF4G1	0.004679853	0.995320147	-2.14387218	0.221474419
EIF4H	0.004651301	0.995348699	-3.166410568	0.076792849
EIF5A	0.004633295	0.995366705	-2.385368206	0.161797249
EIF5B	0.004609485	0.995390515	-1.013816301	0.494266397
EIF6	0.004584342	0.995415658	-0.973577563	0.509142594
ELAC2	0.00457093	0.99542907	0.894059715	1.85888016

ELMO2	0.004556775	0.995443225	0.972578077	1.962744867
ELOF1	0.00455489	0.99544511	-0.835447453	0.559855281
ELOVL3	0.004553929	0.995446071	0.63284635	1.550905884
ELOVL4	0.004549455	0.995450545	1.125550333	2.190160951
ELOVL6	0.004517774	0.995482226	-2.562507391	0.151045241
ELOVL7	0.004484387	0.995515613	-1.019880366	0.492070699
ELP3	0.004459667	0.995540333	-0.976081763	0.503077748
ELP6	0.004452121	0.995547879	-1.485360771	0.355276771
EMC3-AS1	0.004437802	0.995562198	0.5881713	1.503452476
EMC8	0.004415564	0.995584436	-2.06140662	0.236416168
EMD	0.004391025	0.995608975	-3.478194958	0.086038599
EME1	0.004383699	0.995616301	0.910150397	1.880581032
EME2	0.00437984	0.99562016	-2.985750068	0.109933544
EMP2	0.004374026	0.995625974	0.913733942	1.888983407
EMX2OS	0.004347178	0.995652822	-0.789124005	0.576062353
EN1	0.004344912	0.995655088	1.05687197	2.085602968
ENC1	0.00432207	0.99567793	0.973147567	1.964071318
ENDOD1	0.00430427	0.99569573	1.102698197	2.148906982
ENDOV	0.004303273	0.995696727	-2.320334597	0.200089305
ENO1	0.004295963	0.995704037	0.924898663	1.899011697
ENO1-IT1	0.004295006	0.995704994	0.594729132	1.511202024
ENO1P3	0.004289372	0.995710628	-0.787630785	0.579158333
ENOSF1	0.00428595	0.99571405	-1.588004125	0.323223714
ENPP2	0.004267122	0.995732878	-0.804607021	0.572112222
ENTPD1	0.004241349	0.995758651	-2.977044854	0.096117519
EPAS1	0.004237771	0.995762229	0.936434882	1.919784913
EPB41	0.004235558	0.995764442	0.993640723	2.000055474
EPB41L2	0.004227827	0.995772173	-1.167393734	0.439331984
EPB41L3	0.004211548	0.995788452	-1.595559937	0.330849166
EPB41L4A	0.004207177	0.995792823	1.174446547	2.263699361
EPB41L4A-AS1	0.004204941	0.995795059	1.285737724	2.460931033
EPB41L4B	0.004201401	0.995798599	1.361106873	2.569325577
EPB41L5	0.00419366	0.99580634	-2.05182206	0.227281608
EPHA4	0.004172837	0.995827163	0.765149701	1.700570356
EPHA5	0.004171689	0.995828311	-1.643732298	0.305404273
EPHB1	0.004120491	0.995879509	-1.465776846	0.358782503
EPHX4	0.004111383	0.995888617	0.796109053	1.736790077
EPPK1	0.004110742	0.995889258	0.792388369	1.732381605
EPRS	0.004108174	0.995891826	-1.457454162	0.352942673
EPS8L1	0.004097348	0.995902652	-0.972323282	0.509449849
EPT1	0.004093028	0.995906972	-1.035283556	0.486099501
EQTN	0.004060049	0.995939951	0.561809945	1.476928017
ERAL1	0.004031259	0.995968741	-1.441703369	0.365085677
ERAP1	0.004023772	0.995976228	-0.703472595	0.614027186
ERBB4	0.004001377	0.995998623	2.607394081	7.48747531
ERC2	0.00398269	0.99601731	0.515756675	1.430082631
ERCC5	0.003980728	0.996019272	-1.834269037	0.28016179
ERG	0.003977965	0.996022035	-1.048021128	0.477615183
ERH	0.003976479	0.996023521	0.951971985	1.934726292
ERI3	0.003963848	0.996036152	-1.318871508	0.394560548
ERMN	0.003927514	0.996072486	-1.721472608	0.30175465
ERP27	0.003926517	0.996073483	-1.361280999	0.388578358
ERP29	0.003924335	0.996075665	-1.877345223	0.265043446
ERV3-1	0.003915268	0.996084732	1.295123756	2.463749584
ERVMER34-1	0.003908143	0.996091857	1.032777415	2.046175171
ESPL1	0.003902645	0.996097355	1.015549631	2.021915625
ESRP2	0.003899014	0.996100986	1.203092224	2.303809478
ESRRG	0.003898058	0.996101942	1.029786552	2.04537717
ETFA	0.00389606	0.99610394	0.730520123	1.659561402
ETFB	0.003894086	0.996105914	-3.08492508	0.087480266
ETNK2	0.003884339	0.996115661	-0.782680902	0.580992189
ETNPPL	0.003882511	0.996117489	-2.925134377	0.116392609
ETS2	0.00386092	0.99613908	-0.97791728	0.504134055
ETV3	0.003859227	0.996140773	-1.223401337	0.427722318
ETV3L	0.00382542	0.99617458	0.543071639	1.457834094
ETV6	0.003816805	0.996183195	-3.366987763	0.079112416
EVA1A	0.003815779	0.996184221	0.997936615	1.999077868
EVA1C	0.003811638	0.996188362	1.442477162	2.741248303
EVC2	0.003807863	0.996192137	1.257018268	2.393996215
EXO1	0.003807212	0.996192788	-1.522483863	0.33892007
EXOC6B	0.003790233	0.996209767	-0.947781165	0.518081996
EXOSC2	0.003789474	0.996210526	1.3021215	2.502332421
EXOSC3P1	0.003784251	0.996215749	1.621671317	3.10336421
EXOSC4	0.003780361	0.996219639	0.526637781	1.441165404
EXOSC5	0.003771017	0.996228983	-3.874377708	0.064984045
EXOSC7	0.003769079	0.996230921	-0.880724287	0.539663819
EXT1	0.003762425	0.996237575	-2.008100071	0.24028721
EYA2	0.003745175	0.996254825	-2.347920529	0.17666917
F12	0.003744524	0.996255476	-1.001302094	0.496262887
F13A1	0.00372645	0.99627355	0.982940583	1.976706775
F2RL1	0.003726115	0.996273885	-1.328097919	0.395117446
FA2H	0.003703156	0.996296844	-1.117112493	0.459015784
FABP4	0.00370277	0.99629723	0.655653089	1.577095142
FABP5	0.00369552	0.99630448	0.757287787	1.695296301
FABP6	0.003685296	0.996314704	-1.849741311	0.261167506
FABP7	0.003679855	0.996320145	-1.354079603	0.390725057
FAH	0.003676555	0.996323445	1.143702142	2.210386128
FAHD2B	0.003675346	0.996324654	1.80172371	3.549692482
FAM101B	0.003671311	0.996328689	-1.609657247	0.313842479
FAM105A	0.003669476	0.996330524	3.464600192	16.24205766
FAM114A1	0.003656544	0.996343456	-0.752299118	0.591550721
FAM120B	0.003652449	0.996347551	-1.873086444	0.265590498
FAM120C	0.003617547	0.996382453	-1.160804165	0.446933326

FAM124B	0.003591742	0.996408258	1.232186226	2.349915248
FAM133CP	0.003590594	0.996409406	-1.015574785	0.491168252
FAM134B	0.003589695	0.996410305	1.328663919	2.512274611
FAM136A	0.003584383	0.996415617	0.605433826	1.521924251
FAM13C	0.003578387	0.996421613	0.840148227	1.791202827
FAM150B	0.003562886	0.996437114	-0.901736183	0.534657452
FAM157C	0.003562878	0.996437122	-2.050690222	0.240348348
FAM161B	0.003556715	0.996443285	-0.621265487	0.64951357
FAM162A	0.003553929	0.996446071	-2.367983446	0.164804896
FAM168A	0.003539881	0.996460119	-2.975722945	0.12693952
FAM180A	0.00353809	0.99646191	-2.819139334	0.121441809
FAM182B	0.003534856	0.996465144	1.019863699	2.03281787
FAM184A	0.003533043	0.996466957	-0.800260646	0.573655573
FAM186A	0.003532133	0.996467867	0.713607257	1.639915629
FAM189A2	0.00351895	0.99648105	0.769549694	1.705262354
FAM189B	0.003512138	0.996487862	0.829414723	1.782302681
FAM198A	0.003508156	0.996491844	-1.087486408	0.464300545
FAM198B	0.003498622	0.996501378	1.208409026	2.318760853
FAM204CP	0.003488104	0.996511896	1.060180754	2.085495963
FAM207A	0.003466148	0.996533852	-2.055009792	0.224932093
FAM20A	0.003454827	0.996545173	-1.03633593	0.484541805
FAM210A	0.003415322	0.996584678	0.774390689	1.712593958
FAM213B	0.003407355	0.996592645	0.922337546	1.895613585
FAM216A	0.003392041	0.996607959	-0.737084627	0.5996213
FAM218A	0.00339192	0.99660808	0.69874729	1.623131011
FAM222A	0.003387058	0.996612942	-3.458284557	0.083980102
FAM228B	0.003384059	0.996615941	1.458870396	2.762649057
FAM26E	0.003382434	0.996617566	-1.343994979	0.393549119
FAM32A	0.003375899	0.996624101	-1.196811598	0.43029932
FAM3D	0.003350931	0.996649069	-4.121023244	0.052553003
FAM49A	0.003348922	0.996651078	1.563035155	3.010748728
FAM50A	0.003345438	0.996654562	-1.36856408	0.384606522
FAM57A	0.003333188	0.996666812	0.881673896	1.842721178
FAM66A	0.003330247	0.996669753	-2.126174806	0.227395008
FAM66C	0.003321848	0.996678152	-0.912141845	0.528357844
FAM72B	0.003307465	0.996692535	-2.738941295	0.141372789
FAM83A	0.003279868	0.996720132	0.956316768	1.944914354
FAM83D	0.003274124	0.996725876	-1.65420603	0.309368819
FAM84A	0.003267885	0.996732115	-3.413252484	0.080695283
FAM86B3P	0.003266102	0.996733898	-1.963109458	0.250230134
FAM86C2P	0.00325123	0.99674877	-0.978042476	0.50720137
FAM86DP	0.003249954	0.996750046	-1.149432967	0.450737509
FAM86EP	0.003243189	0.996756811	-2.534940529	0.16173912
FAM89A	0.003237929	0.996762071	-0.71398462	0.609152534
FAM95C	0.003227811	0.996772189	-1.526239212	0.338645674
FAM96A	0.003223942	0.996776058	-2.109140383	0.228504587
FAM96B	0.003223875	0.996776125	0.5908407	1.507700713
FAM98A	0.003212704	0.996787296	1.430994552	2.708850128
FANCA	0.003204332	0.996795668	0.776159222	1.713021193
FANCB	0.003190799	0.996809201	-1.537750161	0.344081211
FANCC	0.003188433	0.996811567	0.922007231	1.898074158
FANCD2	0.003182295	0.996817705	0.709880926	1.636335259
FANCE	0.00318124	0.99681876	-1.266178621	0.407043357
FANCG	0.00316664	0.99683336	0.873664109	1.833247009
FAR2	0.003157538	0.996842462	1.606505069	3.047865541
FAR2P1	0.003156463	0.996843537	-0.552954614	0.681559502
FARP1	0.003145429	0.996854571	-1.023992208	0.491681504
FARP2	0.003137421	0.996862579	-4.058648872	0.047393709
FARSA	0.003128045	0.996871955	-1.028481175	0.488889842
FARSB	0.003078705	0.996921295	-1.929797253	0.25506608
FASN	0.003075129	0.996924871	0.72616736	1.659200446
FASTKD2	0.003067969	0.996932031	-0.64280055	0.640369724
FASTKD3	0.003050195	0.996949805	-0.742147074	0.597775444
FASTKD5	0.003043396	0.996956604	1.409725416	2.746657392
FAT1	0.003018955	0.996981045	-3.237317782	0.06480647
FAT2	0.003005544	0.996994456	0.555619749	1.471214466
FAT3	0.002984967	0.997015033	1.571762378	3.038147571
FATE1	0.002979134	0.997020866	0.813315728	1.758912203
FAU	0.002970376	0.997029624	1.169138468	2.276830435
FBL	0.002962189	0.997037811	-0.994438971	0.501700173
FBLN1	0.002954421	0.997045579	-1.155130754	0.444708183
FBXL14	0.00295298	0.99704702	0.885422481	1.847452939
FBXL20	0.00294777	0.99705223	-2.013888154	0.244776213
FBXO31	0.00294725	0.99705275	-1.38478162	0.38268361
FBXO32	0.002947041	0.997052959	1.591469795	3.020307262
FBXO4	0.002928219	0.997071781	-0.612160112	0.65392273
FBXO41	0.002920817	0.997079183	-0.964507995	0.512440837
FBXW9	0.002917818	0.997082182	0.520859259	1.436116717
FCF1P8	0.002900121	0.997099879	-1.189974264	0.43322227
FCGR2A	0.002897955	0.997102045	0.905011126	1.875358995
FDFT1	0.002894674	0.997105326	-3.509205508	0.070093843
FDPS	0.002886438	0.997113562	-1.156876819	0.44682962
FDXR	0.002886091	0.997113909	-1.266810894	0.407709819
FECH	0.002880886	0.997119114	-0.821149903	0.564325251
FEN1	0.002879589	0.997120411	-1.195564669	0.436561706
FER	0.002877532	0.997122468	1.083062916	2.119389555
FERMT1	0.002877295	0.997122705	0.67574918	1.597923779
FERMT2	0.002875648	0.997124352	-4.053102915	0.050276345
FEZ1	0.002874193	0.997125807	-2.180801929	0.206782896
FFAR4	0.002872933	0.997127067	0.840282916	1.790767121
FGD5	0.002868486	0.997131514	-1.217750607	0.424622643
FGF1	0.002865603	0.997134397	-2.210126521	0.194844631
FGF11	0.002860067	0.997139933	-1.241549038	0.422717506

FGF13	0.002850473	0.997149527	1.221930767	2.337738471
FGF7	0.002848367	0.997151633	-1.033584551	0.486287923
FGFR1	0.002840915	0.997159085	1.238045116	2.363713685
FGFR2	0.002830927	0.997169073	1.012047173	2.020260106
FGFR3	0.002827282	0.997172718	0.633300547	1.552234597
FGL2	0.00282041	0.99717959	-0.974443586	0.508823547
FH	0.00280033	0.99719967	-1.35233896	0.389085081
FHDC1	0.002795531	0.997204469	0.532146997	1.446953115
FHL2	0.002792492	0.997207508	0.933474196	1.918411785
FHOD3	0.002791486	0.997208514	-1.625073175	0.316605609
FIBIN	0.002787651	0.997212349	0.618949868	1.53600468
FIBP	0.002781253	0.997218747	-2.525178614	0.164213612
FIRRE	0.002778195	0.997221805	0.951250941	1.933779986
FJX1	0.002775637	0.997224363	-0.568910913	0.673981752
FKBP10	0.002773091	0.997226909	-2.251478715	0.209679231
FKBP1A	0.002759316	0.997240684	-0.981145488	0.505480447
FKBP4	0.002758054	0.997241946	-2.067226593	0.233643506
FKBP9	0.002746148	0.997253852	2.659168798	7.635516345
FLAD1	0.002742512	0.997257488	1.674543973	3.23207791
FLG	0.002737155	0.997262845	1.313773959	2.488740184
FLG2	0.002731445	0.997268555	1.517960784	2.908709937
FLG-AS1	0.002726349	0.997273651	-1.212577518	0.430734581
FLI1	0.002717782	0.997282218	-2.041033843	0.233436009
FLJ31662	0.002698986	0.997301014	-1.300114719	0.404122734
FLNB-AS1	0.002686662	0.997313338	-2.294649699	0.178323721
FLRT2	0.002683274	0.997316726	0.933066136	1.909482814
FLRT3	0.00268087	0.99731913	0.663127458	1.584213978
FMN1	0.002680468	0.997319532	0.942105434	1.922332335
FMNL3	0.0026737	0.9973263	1.620061716	3.073984025
FMO2	0.002671446	0.997328554	-1.274462083	0.413365587
FMO3	0.002639922	0.997360078	-1.024970187	0.491361334
FMO4	0.002639065	0.997360935	-1.538118345	0.34364656
FMO5	0.002638571	0.997361429	1.785020498	3.461759679
FMO6P	0.002630368	0.997369632	-1.299509111	0.396956252
FMOD	0.002629633	0.997370367	-1.237605476	0.423933406
FNBP1	0.002627651	0.997372349	-1.231712831	0.424025669
FNDC1	0.002608688	0.997391312	-0.854716544	0.551381071
FNDC4	0.002605127	0.997394873	1.488150738	2.807850106
FOS	0.002603314	0.997396686	-2.092325513	0.213460831
FOXC1	0.002600321	0.997399679	0.973279759	1.965057951
FOXCUT	0.002600159	0.997399841	-2.942579231	0.116472544
FOXJ2	0.002595089	0.997404911	-2.708110406	0.152866041
FOXM1	0.002587004	0.997412996	-0.709708506	0.611392021
FOXN3	0.002582827	0.997417173	-1.803057027	0.277069061
FOXO1	0.002576396	0.997423604	2.489729272	5.653395614
FOXP1	0.002556099	0.997443901	1.144828397	2.214058542
FOXP1-AS1	0.002548021	0.997451979	-1.118653602	0.460485302
FOXP1-IT1	0.00253773	0.99746227	1.062734575	2.090121877
FOXQ1	0.002537195	0.997462805	-0.522702611	0.695535336
FOXRED1	0.002536567	0.997463433	-1.378959041	0.378348106
FRAT2	0.002535103	0.997464897	0.638649054	1.557202904
FRMD3	0.002534185	0.997465815	1.348530628	2.54741059
FRMD4A	0.002529871	0.997470129	0.829439672	1.780157243
FRMD6-AS2	0.002526599	0.997473401	0.851609962	1.804812167
FRY	0.002504663	0.997495337	1.250547072	2.388873615
FRZB	0.002502834	0.997497166	-1.647060363	0.318171969
FSIP2	0.002496534	0.997503466	-1.590210042	0.330956872
FSIP2-AS1	0.002496081	0.997503919	-0.959402543	0.511392216
FST	0.002494221	0.997505779	1.152432481	2.223497558
FTCDNL1	0.002494093	0.997505907	-3.153079169	0.106669851
FTH1	0.002481747	0.997518253	-2.401132611	0.164923016
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FTSJ2	0.00247698	0.99752302	-2.325138055	0.168514784
FTSJ3	0.002466239	0.997533761	1.300758785	2.503968422
FTX	0.002457086	0.997542914	1.355109711	2.558558095
FXN	0.002431492	0.997568508	-2.421288319	0.18037751
FXR2	0.002427566	0.997572434	-1.444237898	0.364949958
FXYD2	0.002420717	0.997579283	0.657103923	1.580661538
FXYD5	0.002413739	0.997586261	0.726289701	1.655271037
FXYD6	0.002408879	0.997591121	-1.465886673	0.352932446
FYB	0.00239427	0.99760573	0.993394	1.994398868
FZD1	0.002392104	0.997607896	1.432771807	2.700827618
FZD4	0.002391473	0.997608527	-1.060500872	0.476075226
FZD7	0.002391058	0.997608942	-1.573429938	0.335254173
GAB1	0.002388334	0.997611666	-2.359003387	0.183132559
GAB2	0.002368778	0.997631222	1.229973989	2.34601925
GABARAPL1	0.00236822	0.99763178	-2.064532179	0.238614062
GABBR1	0.002351008	0.997648992	-0.626101272	0.647848363
GABPB2	0.002348525	0.997651475	1.077866498	2.135033483
GABRP	0.002341949	0.997658051	-1.113421905	0.458036697
GABRR1	0.002336015	0.997663985	0.842480415	1.794143534
GAD1	0.002327006	0.997672994	0.995580702	2.01546344
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GAL3ST4	0.002307327	0.997692673	-1.977375827	0.249681765
GALE	0.0023034	0.9976966	-1.424792147	0.364310862
GALM	0.002285754	0.997714246	-2.601739235	0.158589776
GALNT10	0.002278734	0.997721266	1.016426688	2.023724623
GALNT14	0.002277517	0.997722483	-0.80449638	0.572445218
GALNT18	0.002274217	0.997725783	-2.598714416	0.124462649
GALNT6	0.002263501	0.997736499	0.641074572	1.56024393
GAN	0.002251769	0.997748231	0.790331008	1.732609046
GANC	0.002232384	0.997767616	0.944518738	1.925127614

GAPDH	0.002223407	0.997776593	0.776215887	1.7160817
GAPDHP1	0.00222098	0.99777902	0.53426554	1.448880728
GAPDHP25	0.002215098	0.997784902	1.630612433	3.098243798
GAR1	0.002213358	0.997786642	1.188075037	2.278734804
GARS	0.00220905	0.99779095	0.744123763	1.675135949
GART	0.00220703	0.99779297	1.006488355	2.009876742
GAS1	0.0022053	0.9977947	1.329916945	2.519235263
GAS5	0.002200785	0.997799215	-1.152301496	0.449600322
GAS8	0.002198374	0.997801626	-1.001952532	0.499096716
GATA3	0.002195758	0.997804242	1.120154131	2.17301546
GATA6	0.002191507	0.997808493	0.847339737	1.79938269
GATB	0.002184005	0.997815995	-1.202496264	0.432380068
GATS	0.002180282	0.997819718	1.252550278	2.383315407
GBE1	0.002175183	0.997824817	-3.729930891	0.074848203
GBP3	0.002166674	0.997833326	0.827281348	1.774505388
GBP4	0.002166634	0.997833366	-1.099249332	0.466183406
GCAT	0.002166357	0.997833643	1.269465742	2.417139706
GCDH	0.002161907	0.997838093	-0.525543859	0.694553485
GCN1	0.00215551	0.99784449	1.100426467	2.146076816
GCNT4	0.002153591	0.997846409	1.376791113	2.600135101
GCOM1	0.002151141	0.997848859	-1.21138286	0.431801774
GCSH	0.002148648	0.997851352	-2.098715552	0.213837876
GDAP1L1	0.002148258	0.997851742	-2.461734399	0.179757337
GEM	0.002136719	0.997863281	0.663171404	1.584503856
GEMIN4	0.002132944	0.997867056	4.225330798	26.67252125
GEMIN5	0.002127338	0.997872662	-0.777679053	0.582595321
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GEMIN7	0.002119721	0.997880279	-1.355842827	0.386187635
GEMIN8	0.002116596	0.997883404	0.991876674	1.999122896
GFM1	0.002112544	0.997887456	-1.452877313	0.36169438
GGA2	0.00211122	0.99788878	-0.788764645	0.575879944
GGCT	0.002106229	0.997893771	1.010777004	2.015468592
GGCX	0.002102586	0.997897414	-0.9216438	0.527878488
GGH	0.002101973	0.997898027	-2.675086313	0.156253017
GGT1	0.002096597	0.997903403	-1.810426994	0.269148916
GGT7	0.002095565	0.997904435	-1.150833161	0.450317882
GGTA1P	0.002095395	0.997904605	-1.440556022	0.368331902
GHITM	0.002093091	0.997906909	1.053142668	2.082492507
GHR	0.002084096	0.997915904	-3.273180822	0.063143838
GINS1	0.002082042	0.997917958	0.813892194	1.758906182
GINS2	0.002080752	0.997919248	-1.190348958	0.4323369
GINS3	0.002069999	0.997930001	-0.911563726	0.531467024
GINS4	0.002067843	0.997932157	-1.773833828	0.286017582
GK	0.002060431	0.997939569	-2.231890734	0.206648445
GLA	0.002059962	0.997940038	-2.570093183	0.164969527
GLB1L2	0.002056606	0.997943394	-1.838078524	0.279340068
GLDC	0.002054884	0.997945116	1.592543029	3.018960282
GLDN	0.002049727	0.997950273	0.755745488	1.689821441
GLI2	0.002041811	0.997958189	-3.729246802	0.057055084
GLI3	0.002036251	0.997963749	0.686241699	1.609450592
GLIS3	0.002034224	0.997965776	-2.47439622	0.17971822
GLO1	0.002030128	0.997969872	-1.631882156	0.32183581
GLOD4	0.002025877	0.997974123	-2.72941755	0.148243701
GLRB	0.002022386	0.997977614	1.016606946	2.023366939
GLRX3	0.002015504	0.997984496	1.235363829	2.392288846
GLRX5	0.002009372	0.997990628	-0.682851545	0.62285107
GLTSCR1L	0.001999218	0.998000782	-1.353570422	0.386269735
GLYATL1P4	0.001997052	0.998002948	1.118916435	2.177658523
GMDS	0.00199592	0.99800408	-1.945477062	0.258753242
GMDS-AS1	0.001984893	0.998015107	-2.23408262	0.193126849
GNAZ	0.001982316	0.998017684	1.019305539	2.031310156
GNB2L1	0.001982104	0.998017896	1.494541111	2.831046142
GNB5	0.001980571	0.998019429	-3.08525505	0.111787271
GNG2	0.001977831	0.998022169	-2.066974499	0.223473132
GNG7	0.001965216	0.998034784	-2.393180231	0.187039035
GNL2	0.001962031	0.998037969	-2.404230012	0.187498974
GNL3	0.001957617	0.998042383	-2.081006045	0.236325999
GNL3L	0.001954479	0.998045521	-2.532282362	0.166192239
GNPDA1	0.001940383	0.998059617	0.804923036	1.748974359
GNPNAT1	0.001939337	0.998060663	-1.252267428	0.414914132
GNPTAB	0.001931439	0.998068561	-0.817533731	0.566825942
GNRH1	0.001924173	0.998075827	0.976310906	1.968223488
GOLGA7B	0.001914641	0.998085359	0.520183306	1.435263832
GOLM1	0.001910222	0.998089778	-2.214546637	0.208429234
GORASP2	0.001903548	0.998096452	-2.161117379	0.208659158
GOT1	0.001896629	0.998103371	1.792861376	3.493459454
GOT2	0.00189273	0.99810727	1.215520856	2.324401573
GP1BA	0.001890173	0.998109827	-1.184639027	0.438508018
GPATCH4	0.001872784	0.998127216	-2.27277471	0.189257168
GPCPD1	0.001870587	0.998129413	1.276546678	2.426259785
GPHN	0.00186518	0.99813482	-1.328254016	0.396801973
GPI	0.001857753	0.998142247	1.109159368	2.159036734
GPR12	0.001855447	0.998144553	-1.83771414	0.272692679
GPR137B	0.00185312	0.99814688	-1.039652833	0.483305715
GPR137C	0.001846602	0.998153398	-1.212724969	0.430180851
GPR155	0.001845312	0.998154688	-0.661794557	0.63200828
GPR156	0.001844145	0.998155855	-1.137427227	0.45301987
GPR161	0.001838519	0.998161481	0.925634054	1.900019971
GPR173	0.001837182	0.998162818	-2.486433791	0.165806829
GPR183	0.001834623	0.998165377	0.901608033	1.868492687
GPR34	0.001833452	0.998166548	-1.490784152	0.350651443
GPR55	0.001830931	0.998169069	1.370637689	2.595550642
GPR63	0.001829332	0.998170668	1.028385866	2.043425235

GPR82	0.001823465	0.998176535	-0.635540384	0.64332158
GPRASP1	0.001821331	0.998178669	0.767600735	1.702551852
GPRASP2	0.001820271	0.998179729	-1.18555956	0.439510432
GPRC5B	0.001814118	0.998185882	-1.224895692	0.42725965
GPT	0.001810872	0.998189128	-0.518486598	0.697729887
GPT2	0.001808221	0.998191779	0.950594421	1.933830033
GPX1	0.001807569	0.998192431	-0.882062602	0.539799565
GPX3	0.001804562	0.998195438	-0.996612306	0.500082595
GRAMD1C	0.00180174	0.99819826	-0.876924268	0.543910604
GRAMD3	0.00179688	0.99820312	-2.458639104	0.171441095
GRB10	0.001796252	0.998203748	-1.3864096	0.374379751
GRIA2	0.001796017	0.998203983	-1.108234132	0.462794209
GRIN2A	0.001793832	0.998206168	-1.300949997	0.403132205
GRIN2B	0.001791316	0.998208684	-1.05309076	0.480356972
GRK5	0.001775958	0.998224042	-1.388579369	0.376876359
GRK5-IT1	0.001767814	0.998232186	-1.882574805	0.258787479
GRPEL1	0.001740641	0.998259359	-1.27836375	0.41216945
GRPEL2	0.00173649	0.99826351	0.94004755	1.919108714
GRSF1	0.001735482	0.998264518	0.894667623	1.862203762
GRWD1	0.001735469	0.998264531	-3.275565742	0.071955687
GS1-124K5.10	0.001722037	0.998277963	-0.788955542	0.577849011
GS1-124K5.11	0.00171978	0.99828022	1.130561487	2.198767707
GS1-124K5.4	0.001717461	0.998282539	-2.897000153	0.125383345
GS1-204I12.3	0.001714787	0.998285213	-2.05443229	0.221675351
GS1-304P7.1	0.001710326	0.998289674	-1.682760957	0.309920582
GS1-304P7.2	0.001704207	0.998295793	-1.565246688	0.335821182
GS1-358P8.4	0.00170412	0.99829588	-2.755264641	0.144255601
GSAP	0.001693534	0.998306466	-1.213289615	0.425362224
GSE1	0.001691164	0.998308836	1.634291656	3.14154581
GSG2	0.00169012	0.99830988	-1.238470848	0.417979599
GSN-AS1	0.001684277	0.998315723	-0.9767417	0.508006585
GSTA1	0.001682253	0.998317747	-1.666636803	0.30554567
GSTO1	0.001680322	0.998319678	0.644247687	1.565359367
GSTP1	0.001656455	0.998343545	0.90386862	1.873131901
GTF2E1	0.001655811	0.998344189	0.853190449	1.808926161
GTF2H2C	0.001640907	0.998359093	-0.810938952	0.569819423
GTF2H3	0.001636792	0.998363208	-1.712527522	0.298263568
GTF2IP4	0.001634342	0.998365658	-1.179386101	0.44129892
GTF2IRD2	0.001633191	0.998366809	-2.235595725	0.21216132
GTF2IRD2B	0.001632643	0.998367357	-3.087671262	0.082364754
GTF3A	0.001625425	0.998374575	0.811663965	1.758962286
GTF3C2	0.001623293	0.998376707	-1.242567444	0.422273574
GTPBP3	0.001618781	0.998381219	-4.396446367	0.047312942
GTPBP4	0.00161478	0.99838522	1.176690583	2.261919416
GTSE1	0.001610919	0.998389081	1.280205546	2.453944615
GUCD1	0.00160846	0.99839154	-1.331458855	0.39434257
GUCY1A3	0.001607135	0.998392865	0.577827873	1.493732694
GUCY1B2	0.001598561	0.998401439	0.723457529	1.651751699
GUCY1B3	0.001590855	0.998409145	-0.94215063	0.518663095
GYS1	0.001590102	0.998409898	-0.636414142	0.643272435
H1F0	0.001589907	0.998410093	1.064105611	2.09213739
H2AFZ	0.001589713	0.998410287	-1.01225492	0.495576398
HAAO	0.001580612	0.998419388	-1.149411391	0.448717229
HABP4	0.001573244	0.998426756	1.498212192	2.828368829
HADHA	0.001568331	0.998431669	-2.320492903	0.199791887
HAGHL	0.001562736	0.998437264	-2.105293484	0.212649698
HAO2	0.001562723	0.998437277	0.89273302	1.865984724
HARS	0.001559752	0.998440248	-1.774670924	0.284150799
HAS3	0.001537342	0.998462658	0.6927161	1.618150155
HAUS4	0.001523936	0.998476064	0.934304809	1.91185118
HAUS6	0.001522052	0.998477948	0.850606514	1.803489263
HAX1	0.001520812	0.998479188	-3.869518568	0.067260037
HCG17	0.001516336	0.998483664	-1.297405774	0.405301467
HCP5	0.001504099	0.998495901	-3.214281945	0.100694791
HDAC1P2	0.001503247	0.998496753	-1.114813485	0.461375353
HDAC3	0.001500846	0.998499154	-2.135242011	0.22681844
HDGF	0.001489707	0.998510293	1.237068997	2.372939758
HDLBP	0.001484325	0.998515675	-0.776921408	0.583202781
HEATR1	0.001475709	0.998524291	-2.403449862	0.188730579
HEATR3	0.001472078	0.998527922	1.344853652	2.541068699
HEATR9	0.001470238	0.998529762	-0.749668272	0.594098852
HECW2	0.001465962	0.998534038	-3.273231628	0.063141514
HEG1	0.001464518	0.998535482	-0.785665055	0.577700722
HELLS	0.001461272	0.998538728	1.001888963	2.003058421
HEPH	0.001458719	0.998541281	0.655707397	1.576155667
HERC5	0.001448181	0.998551819	1.030078319	2.059419728
HERC6	0.001445891	0.998554109	1.521060457	2.93452701
HERPUD2	0.001445079	0.998554921	-1.067852308	0.476975827
HES1	0.00144317	0.99855683	-2.081217773	0.23414296
HEXIM1	0.001436915	0.998563085	0.582902887	1.497978355
HEY2	0.001433692	0.998566308	0.898981954	1.864999717
HEYL	0.001433683	0.998566317	0.924936066	1.899494562
HGSNAT	0.001427548	0.998572452	1.700698125	3.409626727
HHAT	0.00142146	0.99857854	-0.748939054	0.593244703
HHIP	0.001412942	0.998587058	-1.842698564	0.277964599
HIGD1C	0.001409563	0.998590437	1.2949199	2.455141819
HIGD2A	0.001406372	0.998593628	-1.071337145	0.470515102
HILPDA	0.001396897	0.998603103	-2.609751438	0.126917587
HINT1	0.001389462	0.998610538	-1.883129249	0.267493873
HIST1H1A	0.001387649	0.998612351	0.699142708	1.624251168
HIST1H1B	0.001386221	0.998613779	0.861069321	1.82018492
HIST1H1C	0.001385977	0.998614023	-1.089203137	0.469043221
HIST1H1D	0.001378369	0.998621631	-1.717581418	0.303270953

HIST1H2AB	0.001375129	0.998624871	0.765422067	1.700709975
HIST1H2AE	0.001373683	0.998626317	1.005634422	2.008756279
HIST1H2AG	0.001373435	0.998626565	1.711105095	3.293697399
HIST1H2AH	0.00137208	0.99862792	1.198829818	2.302349786
HIST1H2AI	0.001370677	0.998629323	1.038754587	2.054886096
HIST1H2AJ	0.001370052	0.998629948	1.048672912	2.06866689
HIST1H2BD	0.001365421	0.998634579	-1.555955634	0.3368515
HIST1H2BF	0.001362712	0.998637288	-2.289838162	0.186856484
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HIST1H3A	0.001328431	0.998671569	1.165688981	2.252673994
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HIST1H4L	0.001293092	0.998706908	-1.057084803	0.480513737
HIST2H2AB	0.001292813	0.998707187	-2.093262061	0.220804163
HIST2H2AC	0.001288437	0.998711563	1.18238004	2.270142016
HIST2H2BF	0.001288376	0.998711624	1.212147867	2.326059992
HIST3H2A	0.001288047	0.998711953	-1.28823327	0.406915961
HIST3H2BB	0.001286963	0.998713037	1.03436943	2.048819397
HIVEP1	0.001286239	0.998713761	-1.712884265	0.30400108
HJURP	0.001285974	0.998714026	-1.265194223	0.415912387
HK2	0.001272407	0.998727593	-1.018895514	0.490259931
HLA-DMA	0.001269484	0.998730516	0.991120766	1.992672977
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HLA-DPA1	0.001265423	0.998734577	-0.872866894	0.545858563
HLA-L	0.001261873	0.998738127	1.143741843	2.210127021
HLF	0.001261034	0.998738966	-3.031380112	0.121087001
HM13	0.001259032	0.998740968	0.761471061	1.696368267
HMBS	0.001252454	0.998747546	1.16781915	2.246831476
HMGA1	0.001249628	0.998750372	0.839973721	1.79267357
HMGB1P5	0.001238389	0.998761611	1.697274498	3.26170211
HMGB2	0.001236517	0.998763483	1.017027566	2.024470037
HMGB3	0.001234902	0.998765098	-1.935790886	0.249511045
HMGCLL1	0.001233548	0.998766452	0.885804958	1.847914451
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HMGN3-AS1	0.001220189	0.998779811	0.840166005	1.791239912
HMGXB3	0.001219981	0.998780019	-2.363421096	0.1690724
HMOX1	0.001218598	0.998781402	1.258151546	2.411658097
HMOX2	0.00121638	0.99878362	1.529326779	2.888150132
HN1	0.001214718	0.998785282	-2.126441251	0.219553019
HN1L	0.001206996	0.998793004	-3.045882754	0.108259831
HNRNPA1	0.001206436	0.998793564	1.670780623	3.207674147
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HNRNPAB	0.001186094	0.998813906	-2.686199602	0.147100043
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HNRNPCP2	0.001179148	0.998820852	-1.201052518	0.431284063
HNRNPF	0.00117853	0.99882147	-1.068739316	0.474756501
HNRNPL	0.001178339	0.998821661	-3.961188151	0.051838377
HNRNPM	0.001175127	0.998824873	-1.969396671	0.252735926
HOMER2	0.001174896	0.998825104	0.772730777	1.709277547
HOPX	0.001174106	0.998825894	1.710243679	3.308149372
HOTAIRM1	0.001171605	0.998828395	0.961988926	1.949260881
HOXA11	0.00117104	0.99882896	0.719095547	1.646554303
HOXA3	0.001168852	0.998831148	0.610271669	1.526980483
HOXB2	0.001163819	0.998836181	1.941058308	3.847332877
HOXB3	0.001162294	0.998837706	-2.01955428	0.232522995
HOXB-AS1	0.001160611	0.998839389	0.620503062	1.537816444
HOXB-AS2	0.001150224	0.998849776	-1.062708165	0.478651753
HOXC13	0.00114289	0.99885711	-0.977360199	0.507344445
HOXC6	0.001132635	0.998867365	0.795628828	1.737226288
HOXC8	0.00113151	0.99886849	1.046877991	2.06674385
HPDL	0.001129478	0.998870522	0.931138586	1.907122876
HPGD	0.001127288	0.998872712	-2.345881424	0.196416593
HPS6	0.001126432	0.998873568	-1.808007455	0.28538048
HRNR	0.001126394	0.998873606	0.680439756	1.605440198
HRSP12	0.001122716	0.998877284	-3.246637863	0.105014932
HS3ST1	0.001114228	0.998885772	-1.35186679	0.384974014
HS3ST3B1	0.001112882	0.998887118	-0.802166454	0.573157603
HS6ST2	0.001109943	0.998890057	-1.013751736	0.49443893
HSD11B1	0.001109102	0.998890898	-1.22956817	0.426381201
HSD17B10	0.001099315	0.998900685	1.273058805	2.418503664
HSD17B2	0.001097222	0.998902778	0.981828728	1.977974348

HSD3B1	0.001091956	0.998908044	-2.3607026	0.174709469
HSD3BP4	0.001090423	0.998909577	-2.79948888	0.141014529
HSD3BP5	0.001083765	0.998916235	-2.71361904	0.129740389
HSP90AB1	0.001082585	0.998917415	-2.221898093	0.205440526
HSPA12A	0.00108145	0.99891855	1.355864937	2.571613128
HSPA1A	0.001079892	0.998920108	-1.187890984	0.437269436
HSPA1B	0.001069773	0.998930227	-0.889931703	0.536722794
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HSPA8	0.001063456	0.998936544	1.523597663	2.896108812
HSPA8P18	0.001061961	0.998938039	1.101693844	2.149942836
HSPA8P3	0.001059496	0.998940504	0.76604054	1.701218778
HSPA9	0.001058631	0.998941369	0.553419012	1.467894528
HSPD1	0.001054006	0.998945994	-0.967073493	0.508534493
HTR2A	0.001053114	0.998946886	-1.449604548	0.362574121
HTR7	0.00105255	0.99894745	-1.332298184	0.387781667
HTRA1	0.001048678	0.998951322	1.112831372	2.163516359
HYAL4	0.001048392	0.998951608	1.839192531	3.788411152
HYDIN	0.001042388	0.998957612	2.63615464	7.423151054
HYOU1	0.001042193	0.998957807	-1.277737575	0.412412047
IARS	0.001029921	0.998970079	-0.924115946	0.52635354
ICA1	0.001023782	0.998976218	-1.239330152	0.4223406
ICT1	0.001019994	0.998980006	-1.745449319	0.298120976
ID1	0.001019321	0.998980679	0.965755064	1.963645003
ID2	0.001018442	0.998981558	0.602727426	1.519046798
ID4	0.001015871	0.998984129	-0.531012341	0.691813827
IDH2	0.00101209	0.99898791	-1.168593078	0.443631079
IDH3A	0.001010091	0.998989909	-3.048498043	0.110912575
IDH3B	0.001009515	0.998990485	-2.486881046	0.147005634
IDS	0.001006723	0.998993277	-0.631841161	0.644261786
IER3	0.001002887	0.998997113	-2.232405558	0.204301382
IER5	0.001002441	0.998997559	-0.900190893	0.533303089
IFFO2	0.001000112	0.998999888	-2.336256607	0.182083983
IFI27	0.000998735	0.999001265	2.418380407	5.584840664
IFI44	0.000997344	0.999002656	-2.474815142	0.17323242
IFI6	0.000996674	0.999003326	-1.005579309	0.496338335
IFIT1	0.000995804	0.999004196	-0.738533926	0.599219546
IFITM2	0.000993198	0.999006802	-0.863568853	0.549027482
IFITM3	0.000993197	0.999006803	0.958771879	1.946537263
IFNAR2	0.000981417	0.999018583	1.62400517	3.084742641
IFNK	0.000972001	0.999027999	0.773049896	1.709247045
IFNLR1	0.000969088	0.999030912	0.605733771	1.522250848
IGBP1	0.0009668	0.9990332	1.280905563	2.444650572
IGF1R	0.000962947	0.999037053	1.025662464	2.040478628
IGFBP4	0.000960917	0.999039083	-2.399923236	0.177255643
IGFL1	0.000955253	0.999044747	-1.369664801	0.386685877
IGFL2	0.000950294	0.999049706	-1.550950107	0.339712991
IGFL4	0.00094792	0.99905208	-1.836245406	0.279550526
IGIP	0.000947548	0.999052452	1.246181943	2.377553938
IGSF10	0.000947232	0.999052768	1.892660155	3.752206319
IGSF3	0.000941928	0.999058072	-2.66054583	0.152064329
IGSF5	0.000939887	0.999060113	1.335868749	2.530370152
IL10RB	0.000935025	0.999064975	-3.421313988	0.079756968
IL12RB2	0.00093214	0.99906786	1.334490807	2.524260705
IL15	0.000928404	0.999071596	-2.127889283	0.219641382
IL17RD	0.000925918	0.999074082	1.364560565	2.581174387
IL18R1	0.000920548	0.999079452	1.100063285	2.154923197
IL19	0.000917479	0.999082521	0.939634693	1.918502939
IL1R1	0.000915542	0.999084458	1.011438372	2.019930906
IL1RL1	0.000908813	0.999091187	-2.324033709	0.18432912
IL32	0.000908188	0.999091812	0.584505056	1.500128044
IL33	0.000906626	0.999093374	-1.917661209	0.250957218
IL6R	0.000902023	0.999097977	-1.244678485	0.418793217
IL7	0.000899847	0.999100153	0.612098297	1.528661355
ILF2	0.000893009	0.999106991	0.551866838	1.467178589
ILF3	0.000891331	0.999108669	1.556125991	2.968202221
ILK	0.000890538	0.999109462	-1.183893014	0.436372344
ILVBL	0.000888321	0.999111679	-2.006201337	0.233380011
IMMT	0.000888312	0.999111688	1.069228273	2.09889079
IMP3	0.000882686	0.999117314	-1.851432447	0.276280403
IMP4	0.000882287	0.999117713	1.089007712	2.128371773
IMPA2	0.00087748	0.99912252	1.214210938	2.320422806
IMPDH1	0.000876664	0.999123336	-1.643492705	0.308884008
IMPDH2	0.000875166	0.999124834	1.454500581	2.751794285
IMPG2	0.000873788	0.999126212	-0.689073379	0.620085919
INCENP	0.000873431	0.999126569	1.301380005	2.467496901
ING4	0.000868781	0.999131219	-1.613525766	0.312700435
INHBA	0.000867297	0.999132703	0.739908105	1.67093699
INHBA-AS1	0.000865336	0.999134664	0.859830413	1.81659576
INHBB	0.000864576	0.999135424	1.34269814	2.575633094
INPP1	0.000864266	0.999135734	-1.198959214	0.434563989
INSR	0.000857696	0.999142304	-0.773693207	0.582551233
INTS10	0.000857392	0.999142608	-2.526552362	0.170386264
INTS6-AS1	0.000855501	0.999144499	1.433538238	2.703995558
INTS9	0.000855373	0.999144627	-1.298410745	0.405829199
IPO5	0.000851518	0.999148482	-0.730560411	0.602634339
IPPK	0.000851077	0.999148923	-0.613062342	0.653066496
IQCJ	0.000848353	0.999151647	-1.061458149	0.476721916
IQGAP1	0.000847356	0.999152644	-1.55254554	0.339303328
IQGAP3	0.000843548	0.999156452	-1.522484942	0.339615713
IRAK1	0.000839543	0.999160457	-1.068519902	0.476764065
IRF2BP2	0.000836795	0.999163205	1.924895754	4.078285298
IRF2BPL	0.000834189	0.999165811	2.728809194	8.06003427

IRF6	0.000833911	0.999166089	1.048553657	2.08951586
IRF9	0.000831938	0.999168062	1.000870636	2.01346169
IRS1	0.000831624	0.999168376	-2.464249291	0.17847492
IRX3	0.000828446	0.999171554	-1.674535269	0.297542946
IRX5	0.000825908	0.999174092	1.089189314	2.131825114
ISCA1	0.000824671	0.999175329	2.559645988	6.719988834
ISCU	0.000818747	0.999181253	1.053716014	2.08133126
ISG20L2	0.000816436	0.999183564	-2.555172071	0.156098229
ISM1	0.000807732	0.999192268	1.371536308	2.594888326
ISOC1	0.000803912	0.999196088	-0.993609038	0.501937891
ITGA10	0.000801451	0.999198549	1.154275375	2.229787917
ITGA11	0.00080073	0.99919927	-1.492748913	0.34743767
ITGA4	0.000795532	0.999204468	-0.721371488	0.606386292
ITGA9	0.00079184	0.99920816	1.929089535	3.821419744
ITGA9-AS1	0.000785299	0.999214701	1.256634969	2.389559083
ITGB2	0.000784926	0.999215074	1.823658258	3.612136092
ITGB2-AS1	0.000783478	0.999216522	-1.769699907	0.278138408
ITGB5	0.000778629	0.999221371	1.555751913	2.954100095
ITGB5-AS1	0.000775859	0.999224141	-2.418200858	0.176842357
ITGB8	0.000775533	0.999224467	-0.571202633	0.672348608
ITIH5	0.000764395	0.999235605	1.108097205	2.158862171
ITPA	0.000764384	0.999235616	-1.965250345	0.244182459
ITPK1	0.000762485	0.999237515	-0.944936738	0.517076726
ITPK1-AS1	0.000760195	0.999239805	1.568090486	2.970595296
ITPR1	0.000756862	0.999243138	-0.581358059	0.668264593
ITPR2	0.000755236	0.999244764	-2.337343708	0.192802477
ITSN1	0.000753126	0.999246874	0.797003955	1.741739562
JAG1	0.000752037	0.999247963	0.889715522	1.853608741
JAGN1	0.000752005	0.999247995	1.149476486	2.219212825
JAK3	0.000751307	0.999248693	0.984637308	1.980210178
JAM2	0.000747177	0.999252823	0.736854689	1.666672253
JDP2	0.000745379	0.999254621	1.154109576	2.225766909
JMJD4	0.000744762	0.999255238	-0.850167219	0.554710362
JTB	0.000744177	0.999255823	0.987600826	1.983406323
KALRN	0.000739115	0.999260885	-0.947049095	0.51741135
KANK2	0.000738353	0.999261647	1.521560601	2.886469466
KANK4	0.000729338	0.999270662	-2.161052398	0.220198961
KARS	0.0007289	0.9992711	0.697630192	1.621917855
KAT2A	0.000728638	0.999271362	-1.250236857	0.414554158
KAT2B	0.000728179	0.999271821	0.716554358	1.643667641
KATNAL1	0.000728016	0.999271984	1.026752137	2.041347002
KAZALD1	0.000725879	0.999274121	-2.436672604	0.181977583
KB-1396H2.2	0.000724365	0.999275635	1.910759649	3.784697419
KB-1460A1.5	0.000724027	0.999275973	1.634655801	3.134704537
KB-1562D12.1	0.000722373	0.999277627	0.871813475	1.830265877
KB-1836B5.1	0.000722258	0.999277742	-2.206215227	0.215092188
KB-1958F4.1	0.000721269	0.999278731	-0.560129732	0.677811846
KB-7G2.9	0.000716379	0.999283621	-1.278368335	0.41193755
KBTBD3	0.000712084	0.999287916	-0.710017597	0.609424319
KBTBD8	0.000709627	0.999290373	-1.275898936	0.412957896
KCNA7	0.000708689	0.999291311	1.736571202	3.334250285
KCNB1	0.000708222	0.999291778	-3.846998886	0.042810968
KCNH1	0.00070735	0.99929265	-2.37820554	0.190509645
KCNH2	0.000705179	0.999294821	1.149324789	2.246305871
KCNH8	0.000702979	0.999297021	1.228563694	2.345466556
KCNIP1	0.000702254	0.999297746	-1.554935404	0.334883496
KCNJ15	0.000700092	0.999299908	-1.440217233	0.367068212
KCNJ2	0.000700091	0.999299909	0.809562569	1.755314021
KCNJ5	0.000698013	0.999301987	-1.076526744	0.472464876
KCNK1	0.000694433	0.999305567	-4.361384325	0.040412632
KCNK12	0.000693953	0.999306047	0.707405781	1.632897045
KCNK15	0.000693161	0.999306839	-2.317544652	0.197674552
KCNK6	0.000692577	0.999307423	1.082814116	2.118587618
KCNMA1	0.000690519	0.999309481	-3.822510339	0.051846726
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KCNMB4	0.000686413	0.999313587	0.530097894	1.444201924
KCNN3	0.000686308	0.999313692	0.542271885	1.457714215
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KCNQ1OT1	0.000680942	0.999319058	-1.013440706	0.494609648
KCNQ4	0.000680864	0.999319136	1.557630066	2.974290688
KCNQ5	0.00068002	0.99931998	1.369881534	2.585561745
KCNQ5-AS1	0.000679441	0.999320559	0.731949746	1.661425439
KCNQ5-IT1	0.000672146	0.999327854	-1.607867834	0.318737668
KCNRG	0.000671917	0.999328083	-2.073217274	0.229705516
KCNS2	0.000670294	0.999329706	-0.972930114	0.509119199
KCNU1	0.000667846	0.999332154	-1.17279048	0.436690901
KCTD1	0.000666751	0.999333249	1.106311453	2.15505617
KCTD19	0.000664821	0.999335179	-0.961463049	0.513165115
KCTD7	0.0006632	0.9993368	-0.553427581	0.681075696
KDM1A	0.000656714	0.999343286	1.636561294	3.115602597
KDR	0.00065654	0.99934346	-1.706242757	0.303319105
KHSRP	0.000654323	0.999345677	-1.012834899	0.493991947
KIAA0040	0.00065119	0.99934881	-1.847177603	0.269345204
KIAA0100	0.00065073	0.99934927	1.246946939	2.376681577
KIAA0101	0.000649398	0.999350602	-1.408753328	0.367901552
KIAA0226L	0.000648232	0.999351768	-2.750196937	0.144488249
KIAA0355	0.000648014	0.999351986	1.287463735	2.441192072
KIAA0825	0.000647559	0.999352441	-3.166312799	0.104060312
KIAA1107	0.00064358	0.99935642	-1.033735108	0.487402815
KIAA1161	0.000639599	0.999360401	1.686397092	3.218643502
KIAA1211L	0.000634037	0.999365963	0.977831472	1.976571464
KIAA1324	0.000633771	0.999366229	0.547057057	1.462103793
KIAA1324L	0.000632551	0.999367449	-2.566156918	0.136018916

KIAA1328	0.000630171	0.999369829	-2.075038215	0.236549152
KIAA1456	0.000629869	0.999370131	-3.421394439	0.088799437
KIAA1549L	0.00062898	0.99937102	0.533781731	1.447941888
KIAA1644	0.000621673	0.999378327	-1.098449579	0.462770048
KIAA1841	0.000621496	0.999378504	-1.257498415	0.412019309
KIAA2013	0.000621211	0.999378789	0.547772457	1.462953363
KIDINS220	0.000621177	0.999378823	-1.814504443	0.283508513
KIF13A	0.000618206	0.999381794	0.830928729	1.780369611
KIF13B	0.000616627	0.999383373	1.686142966	3.22125658
KIF18B	0.000615812	0.999384188	-1.361772982	0.384080904
KIF20A	0.000615104	0.999384896	1.264021658	2.402738497
KIF22	0.000614553	0.999385447	1.229905648	2.362140598
KIF24	0.000613077	0.999386923	-2.002919263	0.242335463
KIF26B	0.000612272	0.999387728	0.980379864	1.974785245
KIF28P	0.000610172	0.999389828	-1.594514392	0.322345137
KIF2C	0.00060957	0.99939043	1.48350506	2.812822979
KIF4A	0.000605388	0.999394612	-4.637500492	0.032013758
KIF5C	0.000602861	0.999397139	1.248235156	2.386884887
KIF9	0.000601082	0.999398918	0.850855643	1.804001886
KIFC1	0.000599376	0.999400624	-1.297818326	0.403484926
KIRREL	0.000597174	0.999402826	-0.635502261	0.642721003
KIRREL-IT1	0.000597022	0.999402978	-1.020411217	0.49283975
KIT	0.000595927	0.999404073	-1.603366904	0.319252469
KIZ-AS1	0.000593549	0.999406451	0.838032471	1.793905602
KLC1	0.000590434	0.999409566	-1.691464919	0.306478038
KLF10	0.000588087	0.999411913	1.243864501	2.376753727
KLF12	0.000587411	0.999412589	-2.540082976	0.166871484
KLF3	0.00058586	0.99941414	-0.701414892	0.614594029
KLF3-AS1	0.000579484	0.999420516	-0.609171182	0.654923782
KLF4	0.000579195	0.999420805	0.558266817	1.472869542
KLF5	0.000577599	0.999422401	-1.05506655	0.477953696
KLF7	0.000576415	0.999423585	1.635601759	3.172603012
KLF8	0.000574704	0.999425296	-0.558484617	0.678816533
KLHDC1	0.000574415	0.999425585	-0.856377638	0.551789595
KLHDC3	0.000572648	0.999427352	-1.452203401	0.361949352
KLHDC4	0.000569309	0.999430691	0.969509594	1.960581655
KLHDC8B	0.000568329	0.999431671	1.298831362	2.460885868
KLHL18	0.000568053	0.999431947	-3.801515225	0.065476237
KLHL3	0.00056472	0.99943528	1.102483003	2.148288784
KLHL31	0.000562727	0.999437273	0.554296855	1.468609011
KLHL5	0.000560783	0.999439217	-2.934774327	0.126322067
KLK14	0.000558826	0.999441174	-1.813542673	0.278685322
KLK6	0.000552963	0.999447037	-1.553582864	0.340485728
KLRD1	0.000540016	0.999459984	0.728748521	1.657272284
KLRK1	0.000539671	0.999460329	-3.405133611	0.093905849
KMT2E	0.000539572	0.999460428	-1.426738518	0.371608839
KNOP1	0.000538716	0.999461284	0.707165023	1.633178778
KNOP1P4	0.00053835	0.99946165	-1.018251415	0.490605255
KNSTRN	0.00052899	0.99947101	0.940625875	1.920408396
KPNA2	0.000525686	0.999474314	0.814192405	1.758407298
KRCC1	0.0005248	0.9994752	0.709636304	1.635547828
KRI1	0.000523954	0.999476046	-1.965224909	0.253143193
KRT12	0.000522551	0.999477449	1.233164203	2.378911306
KRT14	0.000522113	0.999477887	-0.722829004	0.604520508
KRT16P6	0.000518785	0.999481215	-3.045196549	0.09333712
KRT18	0.000518192	0.999481808	-1.409971471	0.375811081
KRT18P61	0.000518036	0.999481964	1.154965325	2.242853311
KRT19	0.000517135	0.999482865	1.464006948	2.772840941
KRT23	0.000516774	0.999483226	-2.19064186	0.196891746
KRT4	0.000514399	0.999485601	-2.67620345	0.14791259
KRT75	0.000514036	0.999485964	1.120849182	2.175596414
KRT77	0.00050494	0.99949506	1.20446206	2.307917206
KRT8	0.000502786	0.999497214	-0.796813	0.575477454
KTI12	0.000502386	0.999497614	-1.764150369	0.293104643
KTN1-AS1	0.000499759	0.999500241	-0.783937941	0.580664099
L2HGDH	0.000498268	0.999501732	0.741782941	1.675700201
L3HYPDH	0.000497583	0.999502417	1.07480266	2.110881412
L3MBTL3	0.000493589	0.999506411	1.0442411	2.062914817
LA16c-380H5.3	0.000492377	0.999507623	1.241708306	2.366136217
LA16c-380H5.5	0.000492269	0.999507731	-0.811352266	0.569096665
LA16c-431H6.7	0.000491246	0.999508754	-1.732471978	0.299956357
LAGE3	0.000490145	0.999509855	-2.070990977	0.230603532
LAMA1	0.000489437	0.999510563	-0.818957479	0.56667033
LAMA2	0.000488062	0.999511938	-1.440928725	0.364858141
LAMP5	0.000488037	0.999511963	0.544747093	1.458983101
LAMTOR2	0.00048508	0.99951492	1.542081426	2.967679106
LANCL1-AS1	0.000484931	0.999515069	0.73756717	1.67240723
LANCL2	0.000482778	0.999517222	1.067925205	2.098054226
LANCL3	0.000481956	0.999518044	1.06702946	2.097162552
LAP3	0.000481904	0.999518096	3.855982788	16.21971257
LARP1	0.000480023	0.999519977	0.781871473	1.720873458
LARP6	0.000478544	0.999521456	-2.896902149	0.105012843
LARS	0.000476459	0.999523541	0.885747019	1.8505928
LARS2	0.000475043	0.999524957	-1.678007747	0.309245465
LAS1L	0.000475026	0.999524974	-0.771510567	0.583513628
LATS2	0.000474468	0.999525532	-0.720668624	0.605557546
LBP	0.000468245	0.999531755	1.311729676	2.482538341
LBR	0.000465664	0.999534336	-2.536763517	0.168886969
LCA5	0.000459987	0.999540013	1.185884833	2.275300348
LCN2	0.000459462	0.999540538	0.75575143	1.689536011
LCT	0.000458055	0.999541945	1.07887638	2.112586602
LDB3	0.000455664	0.999544336	-0.791891297	0.576836031
LDHA	0.000452958	0.999547042	-2.342492973	0.194491589

LDHAP4	0.000449758	0.999550242	-1.204073622	0.430729022
LDHB	0.000449581	0.999550419	-1.410018677	0.374630501
LDLRAD4	0.000449253	0.999550747	-0.798563007	0.574592048
LDLRAD4-AS1	0.000448284	0.999551716	1.198697981	2.298421002
LEF1	0.000447525	0.999552475	1.242845695	2.386465144
LEMD1	0.000445881	0.999554119	0.582681465	1.498455164
LEO1	0.000441893	0.999558107	1.175734226	2.262929164
LEPROT	0.000440869	0.999559131	-0.718925521	0.606321056
LETM1	0.000440131	0.999559869	1.022243254	2.033051423
LETM2	0.000438831	0.999561169	-1.296192205	0.401946706
LETMD1	0.000434918	0.999565082	-1.677263784	0.311618963
LGALS9	0.000434785	0.999565215	-1.342167777	0.394327681
LGALSL	0.000433015	0.999566985	-2.707511172	0.141200329
LGR4	0.000432443	0.999567557	-2.077932631	0.227757757
LGR5	0.000429272	0.999570728	-0.779087927	0.581121109
LGR6	0.000428229	0.999571771	1.223197715	2.334854959
LHX9	0.000426043	0.999573957	-1.535549704	0.340872532
LIAS	0.000425233	0.999574767	-2.538451846	0.151922676
LIG3	0.000425045	0.999574955	-2.442875643	0.162547228
LIMD1	0.000422963	0.999577037	-0.831282461	0.561741182
LINC00032	0.000422696	0.999577304	1.17177846	2.254136585
LINC00113	0.000421929	0.999578071	0.580266403	1.495202686
LINC00173	0.000419911	0.999580089	1.209973274	2.314330993
LINC00202-1	0.000419022	0.999580978	0.98120441	1.975405136
LINC00238	0.000413281	0.999586719	-1.369672053	0.382751195
LINC00271	0.000413191	0.999586809	-2.70119619	0.138792987
LINC00294	0.000411725	0.999588275	-0.966506965	0.510238892
LINC00303	0.000410662	0.999589338	0.853746418	1.807397596
LINC00327	0.000408497	0.999591503	-1.381851386	0.381509495
LINC00342	0.000406751	0.999593249	-2.890126276	0.13487291
LINC00393	0.000406704	0.999593296	1.112189958	2.161797427
LINC00472	0.000402518	0.999597482	1.665895535	3.187710996
LINC00476	0.000401958	0.999598042	-1.590553856	0.330146437
LINC00504	0.000401828	0.999598172	-2.801473117	0.13854882
LINC00511	0.000400535	0.999599465	-0.872920383	0.545999977
LINC00536	0.000397486	0.999602514	-2.36616831	0.170046907
LINC00607	0.000397335	0.999602665	-1.043344859	0.48505463
LINC00622	0.000395377	0.999604623	-1.245754498	0.421300236
LINC00639	0.000393652	0.999606348	-0.729706978	0.602545585
LINC00649	0.000392608	0.999607392	-4.253469984	0.041886037
LINC00665	0.000391112	0.999608888	-0.615050718	0.652633159
LINC00667	0.000390941	0.999609059	2.158393122	4.680841896
LINC00672	0.000390317	0.999609683	-1.001638098	0.496991622
LINC00674	0.000387899	0.999612101	5.411813128	62.13942775
LINC00710	0.000387226	0.999612774	1.075234987	2.10736168
LINC00842	0.000384841	0.999615159	-2.10684278	0.231564644
LINC00847	0.000382223	0.999617777	-1.141403	0.44803924
LINC00882	0.000382119	0.999617881	0.6608653	1.581709554
LINC00885	0.00037777	0.99962223	1.111764686	2.161500468
LINC00893	0.000376648	0.999623352	1.39888079	2.640305652
LINC00894	0.00037568	0.99962432	-1.949960225	0.255487359
LINC00926	0.000374498	0.999625502	3.264555558	10.42014724
LINC00942	0.000373475	0.999626525	1.226662268	2.356967552
LINC00950	0.000372686	0.999627314	-1.684971108	0.306404407
LINC00958	0.000371877	0.999628123	-1.012915396	0.495009525
LINC00964	0.000370855	0.999629145	-3.094135888	0.116832045
LINC00968	0.000367878	0.999632122	1.041191471	2.060342185
LINC00969	0.000367018	0.999632982	-1.037371552	0.484355788
LINC01057	0.000365469	0.999634531	1.180237839	2.266913694
LINC01123	0.000364584	0.999635416	-2.599066772	0.137114617
LINC01133	0.000363091	0.999636909	-1.386700207	0.382390959
LINC01152	0.000362942	0.999637058	-0.877327437	0.543205503
LINC01153	0.000362905	0.999637095	0.954398514	1.945452936
LINC01186	0.000362073	0.999637927	1.489623837	2.820438889
LINC01225	0.000361848	0.999638152	1.075403424	2.107507304
LINC01235	0.000359996	0.999640004	-0.949429699	0.516762016
LINC01277	0.000359454	0.999640546	-2.330442488	0.184813509
LINC01278	0.000358614	0.999641386	-0.603918052	0.657862759
LINC01311	0.000358494	0.999641506	-2.642679157	0.151042582
LINC01350	0.000357253	0.999642747	0.868250196	1.825641956
LINC01364	0.00035415	0.99964585	-0.675968121	0.62551017
LINC01376	0.000354038	0.999645962	-0.939979406	0.520982076
LINC01420	0.000352685	0.999647315	-1.775876086	0.277006715
LINC01426	0.000351909	0.999648091	-1.549207615	0.336036038
LINC01473	0.000350986	0.999649014	-1.228852085	0.422764521
LINC01482	0.00035082	0.99964918	0.574241379	1.48992324
LINC01504	0.000350504	0.999649496	1.108546946	2.157169034
LINC01547	0.000349111	0.999650889	-1.671568754	0.310509821
LINC01549	0.0003491	0.9996509	-1.011214981	0.495356578
LINC01550	0.000348979	0.999651021	-1.775079485	0.281417131
LINC01588	0.000348941	0.999651059	-0.722295729	0.605637573
LINC01605	0.000348688	0.999651312	-0.888405575	0.539571081
LINC01615	0.000348608	0.999651392	-2.087430543	0.229193632
LINCR-0001	0.000348032	0.999651968	1.159144552	2.233520553
LIPA	0.00034693	0.99965307	-0.58672395	0.665025967
LIPH	0.000344807	0.999655193	-4.323643057	0.043884767
LL21NC02-1C16.2	0.000344529	0.999655471	1.020744688	2.039134939
LLNLR-246C6.1	0.000341272	0.999658728	1.427407683	2.701770891
LMCD1	0.000340953	0.999659047	-0.948254283	0.517954258
LMCD1-AS1	0.000340728	0.999659272	-0.612716709	0.653781978
LMNB2	0.000340249	0.999659751	1.43686034	2.717161226
LMO4	0.000337526	0.999662474	-1.057576179	0.48009864
LMO7	0.000337192	0.999662808	-0.989136072	0.503547236

LMX1B	0.000336467	0.999663533	-1.353872761	0.387513093
LONP1	0.000336348	0.999663652	0.766946009	1.702448801
LONRF2	0.000335814	0.999664186	0.941393074	1.923459903
LOXL1-AS1	0.00033579	0.99966421	-0.642919149	0.640065548
LOXL2	0.000334545	0.999665455	-1.972071117	0.240644488
LOXL4	0.000331386	0.999668614	-0.894750163	0.535761415
LPAR3	0.000330359	0.999669641	0.924522446	1.900096542
LPAR5	0.000330288	0.999669712	0.642826311	1.562574718
LPCAT1	0.000327142	0.999672858	-0.636499479	0.642605157
LPCAT2	0.000326148	0.999673852	1.623410612	3.08843527
LPIN1	0.00032372	0.99967628	0.658526001	1.580490479
LPL	0.000322924	0.999677076	-3.495276263	0.077326094
LPO	0.000322245	0.999677755	-2.735273614	0.136501217
LRCH3	0.000321418	0.999678582	1.151171598	2.226650536
LRG1	0.0003193	0.9996807	-2.917200098	0.130224119
LRMP	0.000319006	0.999680994	1.254999138	2.396148325
LRP5L	0.000317767	0.999682233	-1.566933374	0.33040732
LRP6	0.000316624	0.999683376	1.32353974	2.503324307
LRP8	0.000316231	0.999683769	-1.640424583	0.320116063
LRPPRC	0.000314985	0.999685015	-1.470448179	0.357505224
LRRC1	0.00031399	0.99968601	1.358351551	2.564145889
LRRC32	0.000313804	0.999686196	-1.069096574	0.475926929
LRRC36	0.00031377	0.99968623	-4.075100842	0.050080521
LRRC37A11P	0.000313215	0.999686785	0.692667973	1.61731827
LRRC37A16P	0.000309942	0.999690058	-1.247473991	0.420632101
LRRC37A2	0.000308645	0.999691355	0.583040011	1.499325788
LRRC37A3	0.000308188	0.999691812	-2.24463935	0.192923557
LRRC37BP1	0.000307864	0.999692136	0.699839454	1.625605217
LRRC47	0.000307838	0.999692162	0.704397304	1.630259175
LRRC4C	0.000307488	0.999692512	-0.750109646	0.594381068
LRRC59	0.000306239	0.999693761	1.059338181	2.084325604
LRRC66	0.000304408	0.999695592	1.938712051	3.869394624
LRRC75A	0.000304336	0.999695664	4.621511701	26.57794384
LRRC75A-AS1	0.000304274	0.999695726	-1.626054084	0.323773573
LRRC8C	0.000303261	0.999696739	-1.776602034	0.287411816
LRRCC1	0.000301828	0.999698172	-3.549865505	0.079891017
LRRK1	0.000298273	0.999701727	0.922710447	1.901965744
LRRN1	0.000298004	0.999701996	1.979289118	4.212446154
LSG1	0.000297502	0.999702498	-1.740287647	0.295579679
LSM10	0.000296521	0.999703479	1.488704788	2.82460508
LSM11	0.000295461	0.999704539	-1.232689757	0.425385203
LSM12	0.000293066	0.999706934	1.491285671	2.816729199
LSM2	0.000292821	0.999707179	-0.530263137	0.691729123
LSM3	0.000292756	0.999707244	-1.233537055	0.419657785
LSM4	0.000292716	0.999707284	-1.182580209	0.440401559
LTA4H	0.000288191	0.999711809	-1.585920451	0.32200751
LTB4R2	0.000288018	0.999711982	2.571433361	6.143586999
LTBP2	0.000287356	0.999712644	1.090106964	2.138902754
LTF	0.000286274	0.999713726	1.02466554	2.048266588
LTV1	0.00028587	0.99971413	0.892512281	1.856513788
LUCAT1	0.000284182	0.999715818	-1.855268551	0.275607765
LURAP1	0.000283783	0.999716217	-2.914838074	0.13065339
LURAP1L	0.000282523	0.999717477	-1.822311051	0.281588938
LURAP1L-AS1	0.000282409	0.999717591	-1.518846332	0.348714029
LUZP1	0.000279515	0.999720485	-1.491054229	0.347299444
LVRN	0.000278201	0.999721799	0.806102534	1.748927502
LY6D	0.000277811	0.999722189	1.327313303	2.522937093
LY75	0.000277477	0.999722523	0.60279527	1.52038175
LYAR	0.000277337	0.999722663	1.674004727	3.225057115
LYG2	0.000275464	0.999724536	-3.365051008	0.076126931
LYPD3	0.000273689	0.999726311	-1.283731185	0.4107257
LYRM4	0.000271727	0.999728273	-2.352039525	0.184711252
LYSMD4	0.000271111	0.999728889	0.667451667	1.588456562
LYVE1	0.000270719	0.999729281	-1.370789179	0.38616162
LZTS1-AS1	0.000270644	0.999729356	1.32714617	2.51033588
M6PR	0.000270255	0.999729745	-2.30056241	0.183161788
MAB21L1	0.000268444	0.999731556	1.301463789	2.466931216
MACF1	0.000268422	0.999731578	1.156688525	2.24422256
MACROD2	0.000268268	0.999731732	0.802017202	1.744490401
MAD2L1	0.000267224	0.999732776	0.962643411	1.949037785
MAD2L1BP	0.00026519	0.99973481	-2.652500674	0.140302596
MAF	0.000263596	0.999736404	1.511558243	2.85843867
MAFB	0.000261792	0.999738208	-1.522681251	0.339228748
MAGI1-IT1	0.000260418	0.999739582	-1.090573376	0.46473171
MAGI2	0.000260262	0.999739738	0.918547591	1.891268107
MAGI3	0.000259575	0.999740425	-0.577544544	0.669799021
MAGOH	0.000257546	0.999742454	1.247576539	2.374770209
MAK	0.000257043	0.999742957	1.028249427	2.046256689
MAK16	0.000256483	0.999743517	0.703228092	1.628518642
MALL	0.000255843	0.999744157	2.204236494	4.678562606
MAMDC2	0.000255673	0.999744327	1.644452173	3.201220528
MAMDC2-AS1	0.000254432	0.999745568	-1.261326916	0.414833592
MAML2	0.000252878	0.999747122	-1.4720691	0.360212823
MAMLD1	0.00025084	0.99974916	1.06531858	2.108300828
MAOA	0.000250282	0.999749718	1.130016167	2.188722243
MAOB	0.00024896	0.99975104	-1.945694569	0.245308095
MAP2	0.000248691	0.999751309	0.527933533	1.442651487
MAP2K1	0.0002484	0.9997516	-1.247989949	0.420968102
MAP2K3	0.000248361	0.999751639	0.558309421	1.47340515
MAP3K3	0.000248346	0.999751654	-1.966149731	0.254837153
MAP3K4	0.000247942	0.999752058	-2.386034397	0.173768912
MAP3K5	0.000247573	0.999752427	1.086054314	2.123564197
MAP6D1	0.000246877	0.999753123	-2.983396786	0.118507324

MAPK10	0.000246619	0.999753381	-2.209934285	0.200234118
MAPK12	0.000246198	0.999753802	-1.978838658	0.248501041
MAPK13	0.000245442	0.999754558	-1.758079736	0.284168158
MAPK15	0.000243864	0.999756136	-2.623918774	0.162116521
MAPK4	0.000243186	0.999756814	-0.653266764	0.635598397
MAPKAPK3	0.000242971	0.999757029	-1.249108143	0.420127045
MAPRE2	0.00024278	0.99975722	1.02179546	2.030625131
MAPT-AS1	0.000242683	0.999757317	-0.887163163	0.540482501
1-Mar	0.00024253	0.99975747	0.817993009	1.766764464
3-Mar	0.000242218	0.999757782	-2.559425854	0.168842971
MARS	0.000241753	0.999758247	-1.728975073	0.29546591
MARS2	0.000241679	0.999758321	0.972984936	1.965077273
MARVELD1	0.000240211	0.999759789	-2.358620672	0.181241827
MASP1	0.000239958	0.999760042	0.932411987	1.917359856
MASP2	0.000239216	0.999760784	0.723926919	1.65183798
MAST4	0.000237937	0.999762063	1.477671685	2.811469375
MAST4-AS1	0.000237582	0.999762418	0.890972633	1.854787405
MATN2	0.000237495	0.999762505	-1.464953185	0.35705767
MATN3	0.000236644	0.999763356	-1.151002567	0.449605463
MAZ	0.000236195	0.999763805	1.584340859	3.00080785
MB21D2	0.000234456	0.999765544	-0.527055043	0.693372812
MBD5	0.000233881	0.999766119	0.936779963	1.91533815
MBLAC2	0.000233842	0.999766158	-2.526349	0.171617883
MBOAT1	0.000232903	0.999767097	-1.282018674	0.408006134
MCAT	0.000231325	0.999768675	-1.040705223	0.485439217
MCCC1	0.000230884	0.999769116	-0.775378204	0.583370224
MCF2L2	0.000230018	0.999769982	-1.548825729	0.339665897
MCIDAS	0.000229506	0.999770494	-2.083021035	0.222947378
MCM10	0.000227378	0.999772622	-3.892731452	0.063299162
MCM2	0.000224771	0.999775229	-1.379359293	0.383862005
MCM3	0.000224401	0.999775599	-2.785504795	0.131997893
MCM4	0.000224346	0.999775654	1.13829244	2.213968175
MCM5	0.000223553	0.999776447	1.434624289	2.704151728
MCM6	0.00022228	0.99977772	-1.119897145	0.457855202
MCM7	0.000218727	0.999781273	-1.350825113	0.391437497
MCOLN2	0.000218551	0.999781449	0.735225137	1.668957399
MDFIC	0.000218018	0.999781982	1.499486081	2.835920557
MDH2	0.000217381	0.999782619	-1.41213497	0.370510885
MDN1	0.000217366	0.999782634	-0.626022409	0.64778807
ME1	0.000216872	0.999783128	0.76564752	1.704759571
ME2	0.000216455	0.999783545	0.943883181	1.923778521
MECOM	0.000214424	0.999785576	-0.640385222	0.641420952
MECP2	0.000214392	0.999785608	-1.203810431	0.431508076
MED12L	0.000214137	0.999785863	-0.763519184	0.588999979
MEF2C	0.000211583	0.999788417	1.284035257	2.440030677
MEGF10	0.000209541	0.999790459	0.990247566	1.986883593
MEGF9	0.000209331	0.999790669	-1.52026931	0.348472998
MEI4	0.000209303	0.999790697	-2.458549477	0.178748352
MERTK	0.000209206	0.999790794	1.523714683	2.93981063
METAP2	0.000208117	0.999791883	0.562979394	1.477630907
METTL1	0.000204666	0.999795334	-1.168717954	0.438771802
METTL12	0.000203957	0.999796043	0.548513042	1.462714268
METTL13	0.000200764	0.999799236	-0.952286883	0.515760788
METTL20	0.000199477	0.999800523	-2.947061069	0.111865915
METTL8	0.000198122	0.999801878	-3.469612686	0.089975264
MEX3B	0.000195562	0.999804438	1.060758938	2.08660324
MFAP5	0.000194866	0.999805134	-1.022150366	0.489382932
MFN2	0.00019425	0.99980575	-5.52883746	0.017124163
MFSD2A	0.000194157	0.999805843	-0.833480522	0.561133847
MFSD4	0.000193592	0.999806408	0.872537719	1.840593449
MGAT4A	0.000193347	0.999806653	0.969639066	1.959011441
MGAT5	0.000192767	0.999807233	0.674116845	1.598208949
MGC39584	0.000192509	0.999807491	-1.524611909	0.344768297
MGP	0.000192443	0.999807557	-2.073929521	0.231265941
MIA	0.000191854	0.999808146	-3.156412998	0.109196014
MICE	0.000191056	0.999808944	-1.328908463	0.397914279
MID1IP1	0.000190805	0.999809195	-3.278621694	0.098374908
MIEF1	0.000189566	0.999810434	0.938000466	1.917075304
MIEN1	0.000189043	0.999810957	-4.043146348	0.04931916
MINA	0.000188538	0.999811462	1.966799565	3.912692216
MINCR	0.000188321	0.999811679	0.560770792	1.475156483
MIPEP	0.000187393	0.999812607	0.876850428	1.837624428
MIR1284	0.000187324	0.999812676	-0.646628275	0.638190959
MIR17HG	0.00018695	0.99981305	-2.323306171	0.195468908
MIR181A1HG	0.000186406	0.999813594	-1.095005424	0.467850001
MIR193BHG	0.00018558	0.99981442	-2.158847638	0.201174178
MIR205HG	0.000185117	0.999814883	0.897765904	1.866641678
MIR27B	0.000184935	0.999815065	-2.840570795	0.123569899
MIR30A	0.000184913	0.999815087	0.818262457	1.764361189
MIR30C2	0.000184316	0.999815684	-1.122961938	0.457219814
MIR34AHG	0.000182786	0.999817214	-2.663939449	0.134698788
MIR3936	0.000181539	0.999818461	-1.659250524	0.311320782
MIR4319	0.00018093	0.99981907	-2.996163615	0.106633959
MIR4459	0.000179629	0.999820371	-0.917120402	0.528845895
MIR5190	0.000179353	0.999820647	-2.014839312	0.24248941
MIR548H1	0.00017775	0.99982225	-2.100920486	0.229297298
MIR568	0.000177638	0.999822362	-2.481637834	0.178735876
MIR5706	0.000177318	0.999822682	-2.233704827	0.204389186
MIR802	0.000177044	0.999822956	-2.315915401	0.186885241
MIR99AHG	0.000173889	0.999826111	1.271032164	2.416310837
MIS18A	0.000173278	0.999826722	-1.916131044	0.25686679
MKI67	0.00017267	0.99982733	1.917622372	3.83019717
MKL1	0.000172599	0.999827401	-1.548345797	0.332433774

MKNK2	0.000172061	0.999827939	-0.560786402	0.677905559
MKRN2OS	0.000170519	0.999829481	0.824151051	1.770989632
MKRN5P	0.000169966	0.999830034	1.016072607	2.02293111
MLF2	0.000169634	0.999830366	0.873325873	1.839427479
MLIP	0.00016925	0.99983075	-0.685410473	0.620394136
MLIP-AS1	0.000168876	0.999831124	-2.476194845	0.157806543
MLIP-IT1	0.000168858	0.999831142	1.062988273	2.089888161
MLLT4	0.000168673	0.999831327	-1.379159478	0.384020818
MLLT4-AS1	0.000167968	0.999832032	-2.484660436	0.176803648
MLST8	0.000167548	0.999832452	-1.448549068	0.365661515
MLX	0.000166609	0.999833391	1.687150215	3.263867902
MMACHC	0.00016648	0.99983352	-3.140535141	0.110455399
MME	0.000166281	0.999833719	-1.181908915	0.439722442
MMP13	0.000165625	0.999834375	1.365234232	2.577990421
MMP17	0.000165465	0.999834535	1.667259486	3.243651228
MMP19	0.000164705	0.999835295	0.746063972	1.678193393
MMP2	0.000164014	0.999835986	1.048094734	2.069310951
MMP20	0.000163964	0.999836036	-2.370140094	0.174488099
MMP24-AS1	0.000163758	0.999836242	1.497007426	2.828639219
MMP25	0.000162262	0.999837738	-1.139268809	0.45366897
MMP27	0.00016202	0.99983798	-2.166104087	0.200455713
MMP28	0.000161301	0.999838699	-2.115299073	0.218384086
MMP7	0.000160445	0.999839555	0.533449205	1.447618907
MMRN2	0.000160105	0.999839895	0.63632041	1.556963043
MMS19	0.000156492	0.999843508	0.951214185	1.934501123
MN1	0.00015584	0.99984416	1.252827625	2.387554735
MNT	0.000155713	0.999844287	0.585641045	1.502699614
MOAP1	0.000154889	0.999845111	-2.284190708	0.197915111
MOB3B	0.000154856	0.999845144	1.321966601	2.500585835
MOB3C	0.000154543	0.999845457	-3.128394633	0.110236146
MOCOS	0.000154136	0.999845864	-1.338514499	0.388438465
MOGAT2	0.000154032	0.999845968	1.211864049	2.317251751
MON1A	0.00015395	0.99984605	-1.466860386	0.356293446
MOV10L1	0.000153389	0.999846611	1.41400959	2.67864921
MOXD1	0.000152672	0.999847328	0.634286401	1.553510824
MPC1	0.000151312	0.999848688	0.854880706	1.808831521
MPDU1	0.000151086	0.999848914	0.71997798	1.647768864
MPI	0.000151016	0.999848984	-2.6513145	0.153476028
MPP3	0.000150262	0.999849738	-1.174115806	0.442957887
MPP6	0.000150238	0.999849762	0.663457731	1.584321511
MPV17	0.000148599	0.999851401	-1.494844627	0.348607045
MPZ	0.000148338	0.999851662	-1.566244737	0.335984525
MR1	0.000147463	0.999852537	2.293667251	4.927983044
MRGBP	0.000145908	0.999854092	0.975411327	1.977517249
MRM1	0.000145816	0.999854184	2.7498055	7.501493684
MROH7	0.000144904	0.999855096	0.794002289	1.734325513
MRPL10	0.000144899	0.999855101	1.157259265	2.231641325
MRPL11	0.000144551	0.999855449	1.318721761	2.495464671
MRPL14	0.000144403	0.999855597	0.835074721	1.790105764
MRPL15	0.00014334	0.99985666	-2.489269251	0.168817315
MRPL16	0.000142401	0.999857599	-1.379230291	0.383839394
MRPL17	0.000142164	0.999857836	-0.69009007	0.619570416
MRPL18	0.000141586	0.999858414	0.555524703	1.470410398
MRPL2	0.000141029	0.999858971	1.078035524	2.111396064
MRPL20	0.000140435	0.999859565	-0.875967132	0.541848746
MRPL21	0.000140178	0.999859822	-2.856545537	0.098541628
MRPL22	0.000140121	0.999859879	1.079170047	2.113857464
MRPL23	0.000137116	0.999862884	-1.679864978	0.301211044
MRPL24	0.000136255	0.999863745	-2.122856083	0.223173003
MRPL27	0.000135608	0.999864392	0.72505705	1.653289857
MRPL28	0.000135479	0.999864521	-1.249245865	0.420324909
MRPL3	0.000135062	0.999864938	-0.980181332	0.506122633
MRPL30	0.000134929	0.999865071	-1.459511671	0.356008249
MRPL32	0.000134222	0.999865778	0.596577965	1.512362575
MRPL34	0.000134094	0.999865906	0.791327228	1.732116895
MRPL36	0.000132433	0.999867567	-1.521784522	0.348085706
MRPL37	0.000131813	0.999868187	-1.744306884	0.297943034
MRPL39	0.000130622	0.999869378	-0.947281194	0.518286779
MRPL4	0.0001301	0.9998699	1.023300965	2.03346715
MRPL40	0.00012989	0.99987011	1.673679683	3.204164064
MRPL42	0.00012895	0.99987105	-2.218872984	0.21055704
MRPL43	0.000128512	0.999871488	0.580962903	1.496017485
MRPL44	0.000128086	0.999871914	1.180584172	2.268804385
MRPL45	0.000127944	0.999872056	-1.261423373	0.41527157
MRPL47	0.000127752	0.999872248	-3.405130468	0.065578541
MRPL50	0.000127036	0.999872964	0.617711997	1.53532418
MRPL51	0.000125537	0.999874463	-2.568391074	0.157593203
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MRPL9	0.00012453	0.99987547	-0.770080457	0.585757095
MRPS11	0.00012434	0.99987566	0.922117976	1.898072588
MRPS12	0.000124329	0.999875671	-1.654285969	0.308819122
MRPS15	0.000123867	0.999876133	-1.287227094	0.406519677
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MRPS17	0.000122173	0.999877827	1.333685886	2.529834205
MRPS18A	0.000122124	0.999877876	-3.318999242	0.062522638
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MRPS27	0.00011738	0.99988262	-3.182429001	0.104739897
MRPS33	0.00011686	0.99988314	1.778346574	3.460594753
MRPS34	0.000116743	0.999883257	-0.995349116	0.501024395
MRPS35	0.000116312	0.999883688	-1.995689849	0.23819616
MRPS5	0.000115759	0.999884241	-1.491296271	0.351317191
MRPS7	0.000115627	0.999884373	-0.716520328	0.607831289
MRPS9	0.000114644	0.999885356	0.916355896	1.888075468
MRRF	0.000114504	0.999885496	0.741396036	1.672005761
MRS2	0.000114338	0.999885662	0.639712673	1.558356159
MRTO4	0.000114034	0.999885966	-1.506945264	0.350973089
MRVI1	0.000113659	0.999886341	-2.839012602	0.124812213
MSH5	0.000113591	0.999886409	-0.713156147	0.608521014
MSLN	0.000113531	0.999886469	3.44305786	11.49734536
MSRB3	0.000112899	0.999887101	-3.994641847	0.050891536
MSTO1	0.000112452	0.999887548	0.79586844	1.736435787
MT1E	0.000112427	0.999887573	-2.698671559	0.148323456
MT1F	0.000112098	0.999887902	-2.210158052	0.216065467
MTA1	0.000111232	0.999888768	1.055696865	2.078956495
MTA2	0.000110616	0.999889384	-1.45216133	0.364712185
MTCH2	0.000110011	0.999889989	-0.726758378	0.602570948
MT-CO2	0.000109963	0.999890037	-1.091257013	0.468193869
MT-CO3	0.0001096	0.9998904	-2.030439867	0.243569398
MTFMT	0.000109506	0.999890494	0.960807453	1.94672268
MTFR2	0.000109404	0.999890596	0.812901021	1.761926862
MTHFD1	0.000109032	0.999890968	-2.813244578	0.136306764
MTHFD1L	0.00010865	0.99989135	-2.021279584	0.246037869
MTHFD2	0.000108159	0.999891841	1.486433737	2.820318526
MTIF2	0.000108087	0.999891913	1.230059434	2.349651868
MTMR10	0.000107703	0.999892297	-0.670060328	0.627892794
MTMR11	0.000107582	0.999892418	-1.015109762	0.494673668
MTMR4	0.000107221	0.999892779	-3.223208651	0.104429304
MTND1P21	0.000107175	0.999892825	-1.861072613	0.275126887
MTND2P5	0.000107126	0.999892874	1.784266847	3.544634176
MTND5P28	0.000106811	0.999893189	-1.980193592	0.237725451
MTOR	0.000106657	0.999893343	1.697284343	3.299283535
MTPAP	0.000106546	0.999893454	-1.116673719	0.461098145
MTRNR2L8	0.000106468	0.999893532	-2.225458505	0.197950557
MTRR	0.000106284	0.999893716	0.641957567	1.561647564
MTSS1	0.000105992	0.999894008	-1.367128588	0.385651887
MTX1	0.00010571	0.99989429	-1.67293046	0.311440067
MUCL1	0.000105698	0.999894302	-1.359575225	0.389576867
MUM1	0.000105473	0.999894527	-0.701112362	0.614622723
MVB12B	0.000104956	0.999895044	-1.390109143	0.378600153
MX1	0.00010482	0.99989518	-0.525485344	0.694027677
MX2	0.000104749	0.999895251	-1.226651376	0.427040247
MXD1	0.000104728	0.999895272	1.615254725	3.086108812
MYBBP1A	0.000104565	0.999895435	-1.44144727	0.367975135
MYBL2	0.000104439	0.999895561	-1.719981659	0.29651182
MYBPC1	0.000104255	0.999895745	1.301439319	2.468767298
MYBPC2	0.000102396	0.999897604	-1.274493277	0.412942202
MYBPHL	0.000101746	0.999898254	-0.746559617	0.595716789
MYC	0.000101597	0.999898403	0.854326245	1.809259561
MYCL	0.000101229	0.999898771	-1.844385745	0.2765777
MYDGF	0.000100935	0.999899065	-2.528712736	0.17217608
MYEF2	0.000100835	0.999899165	-1.790125594	0.278264085
MYEOV	9.98E-05	0.999900206	-2.677535527	0.149428438
MYEOV2	9.87E-05	0.999901269	0.985229987	1.983303997
MYH11	9.86E-05	0.999901432	-1.541709692	0.342719626
MYH3	9.86E-05	0.999901445	2.031593457	4.126242393
MYLK	9.84E-05	0.999901635	1.795735667	3.518174924
MYLK-AS2	9.82E-05	0.999901805	-2.134436296	0.219232135
MYO5A	9.82E-05	0.999901842	-1.517739731	0.348468331
MYOF	9.74E-05	0.999902637	-0.642749804	0.640040603
MYOM1	9.73E-05	0.999902678	0.975236543	1.968199408
MYZAP	9.73E-05	0.999902704	0.953227055	1.936788443
MZT1	9.67E-05	0.99990326	-0.774590314	0.582706195
MZT2B	9.66E-05	0.999903372	-1.602804388	0.325631592
N4BP1	9.65E-05	0.99990345	-2.95451352	0.100228901
N4BP2L1	9.65E-05	0.999903507	-2.476681538	0.178505318
N6AMT2	9.65E-05	0.999903541	1.28334179	2.451800977
NAA10	9.52E-05	0.999904821	0.80414523	1.747145958
NAA20	9.52E-05	0.999904822	1.847970683	3.805722839
NAA25	9.48E-05	0.999905243	-3.649106312	0.07083665
NAA40	9.45E-05	0.999905468	-0.778098005	0.582913922
NAALADL2	9.42E-05	0.999905762	0.602267494	1.518862269
NAALADL2-AS3	9.42E-05	0.999905797	1.026463987	2.039159933
NABP2	9.39E-05	0.999906078	0.855972837	1.817746508
NACA	9.33E-05	0.999906743	-1.17627333	0.440433996
NAE1	9.21E-05	0.999907918	-0.716672625	0.608403604
NAGK	9.18E-05	0.999908188	0.836576939	1.786041297
NAP1L1	9.13E-05	0.999908666	-0.936369649	0.521249731
NARS	9.09E-05	0.999909138	1.100252414	2.144338879
NARS2	9.08E-05	0.99990921	-2.09266128	0.216941083
NAT10	9.01E-05	0.999909901	1.171780076	2.253515402
NAT9	8.99E-05	0.999910082	1.198703341	2.295958394
NAV1	8.88E-05	0.999911188	1.470000809	2.790831303
NAV2	8.76E-05	0.999912439	-1.820977871	0.280213118
NAV2-AS2	8.74E-05	0.999912597	-1.213761822	0.431056525
NAV2-AS3	8.74E-05	0.999912649	1.34175469	2.536709407
NAV3	8.70E-05	0.99991295	0.866464387	1.824549713
NBAT1	8.65E-05	0.999913518	1.805996867	3.508059358
NBEA	8.62E-05	0.999913831	-2.707970072	0.148324205
NBEAP1	8.56E-05	0.999914419	0.52557022	1.440082005

NBR2	8.54E-05	0.999914625	1.370569374	2.586762665
NCALD	8.47E-05	0.999915254	1.055163648	2.07957978
NCAPD2	8.41E-05	0.999915919	-1.2610503	0.417089612
NCAPD3	8.33E-05	0.999916742	-1.883990441	0.26749697
NCAPG2	8.30E-05	0.999917044	-2.361329735	0.174994906
NCAPH	8.29E-05	0.999917108	-2.708759799	0.134630168
NCBP2-AS2	8.26E-05	0.999917435	-2.469630556	0.180367983
NCEH1	8.22E-05	0.999917753	-1.044055042	0.484709553
NCK2	8.20E-05	0.999917986	-2.933834857	0.119693106
NCKAP1L	8.19E-05	0.999918132	-2.118502623	0.224063154
NCKAP5	8.14E-05	0.999918609	-4.365766772	0.043699297
NCL	7.98E-05	0.999920246	-2.158211749	0.223050866
NCOA1	7.97E-05	0.999920285	0.755197213	1.689924543
NCR3LG1	7.95E-05	0.999920504	-3.870339966	0.055255128
NCS1	7.94E-05	0.999920585	0.704844475	1.632242856
NDC1	7.93E-05	0.999920664	0.996797139	2.006356561
NDRG1	7.89E-05	0.999921052	1.66653622	3.181372356
NDRG2	7.83E-05	0.99992175	1.571908802	2.976011537
NDRG4	7.81E-05	0.999921872	-2.413872704	0.185703127
NDST3	7.80E-05	0.999922028	1.229424066	2.34535372
NDUFA1	7.78E-05	0.999922201	-0.555237554	0.680269482
NDUFA10	7.73E-05	0.999922711	1.188142725	2.279821951
NDUFA2	7.70E-05	0.999922964	0.875925565	1.837027033
NDUFA6-AS1	7.67E-05	0.999923256	-1.81498777	0.281993221
NDUFA8	7.66E-05	0.999923445	1.019411402	2.027652235
NDUFAF2	7.64E-05	0.999923644	-1.526532501	0.344020997
NDUFAF3	7.63E-05	0.999923657	-1.430147388	0.369389435
NDUFAF4	7.61E-05	0.999923918	0.709977906	1.636751396
NDUFB10	7.54E-05	0.999924649	-0.82028395	0.565876925
NDUFB11	7.49E-05	0.999925127	-3.427919921	0.087116418
NDUFB4	7.47E-05	0.999925328	-0.977997111	0.507024275
NDUFB9	7.41E-05	0.999925946	-1.047506671	0.483790703
NDUFS2	7.36E-05	0.999926363	-2.94992045	0.104708932
NDUFS3	7.36E-05	0.9999264	1.095099091	2.138902215
NDUFS5	7.34E-05	0.999926553	-1.697307647	0.305379993
NDUFS6	7.31E-05	0.999926903	-2.587404269	0.162590512
NDUFV3	7.28E-05	0.99992724	1.06969837	2.100172042
NEAT1	7.27E-05	0.999927251	-2.200267141	0.217485485
NEBL	7.26E-05	0.999927416	-1.809647845	0.280684329
NEDD9	7.25E-05	0.999927486	0.752435622	1.68773466
NEIL2	7.18E-05	0.999928235	0.527859062	1.442497396
NEIL3	7.16E-05	0.999928422	-2.806664515	0.126016792
NEK11	7.12E-05	0.9999288	1.021072796	2.029700895
NEK2	7.11E-05	0.999928867	0.557454823	1.472126765
NEK6	7.11E-05	0.999928928	0.822540562	1.772486341
NELFCD	7.04E-05	0.999929602	0.692750218	1.616893709
NELFE	6.99E-05	0.999930058	-0.943287297	0.519722174
NEO1	6.97E-05	0.999930267	-2.618056782	0.162464163
NEU3	6.95E-05	0.999930475	-3.785683464	0.058175719
NEURL1B	6.88E-05	0.999931155	2.132865735	4.415115181
NEURL3	6.88E-05	0.999931217	0.976048141	1.967837838
NF1P1	6.79E-05	0.999932064	-1.384321183	0.381976402
NFAT5	6.75E-05	0.999932514	-1.702961116	0.307017122
NFATC2	6.75E-05	0.999932535	-2.047771525	0.241808798
NFKBIZ	6.73E-05	0.999932662	-1.753973844	0.292203465
NFS1	6.73E-05	0.999932676	0.614719192	1.532159487
NGDN	6.72E-05	0.99993279	-2.700932184	0.148213535
NGRN	6.71E-05	0.999932945	-1.890970607	0.263318388
NHP2	6.66E-05	0.999933417	0.983228117	1.978807155
NHS	6.59E-05	0.999934124	-2.510513619	0.166332889
NICN1	6.57E-05	0.999934328	-0.563420199	0.676645702
NIF3L1	6.57E-05	0.99993433	1.279170945	2.430240547
NIFK	6.56E-05	0.999934437	-1.3469564	0.390222634
NINJ2	6.56E-05	0.999934449	1.461406252	2.759632789
NIP7	6.55E-05	0.999934507	1.877761116	3.866332246
NIPA2	6.53E-05	0.999934653	-1.576168642	0.325795862
NIPSNAP1	6.53E-05	0.999934673	1.312393135	2.485027034
NKAPP1	6.51E-05	0.999934921	0.658507038	1.578992738
NKILA	6.49E-05	0.999935084	1.35254487	2.560995318
NKX3-1	6.49E-05	0.999935097	0.980821729	1.974623586
NKX3-2	6.42E-05	0.999935776	1.000475412	2.004172297
NLE1	6.35E-05	0.999936481	1.75614208	3.393075887
NLGN2	6.34E-05	0.999936571	0.575885336	1.490968172
NLGN4X	6.34E-05	0.999936609	-1.918140976	0.261791321
NLN	6.31E-05	0.999936873	0.987985694	1.984158924
NLRP1	6.30E-05	0.999936984	-2.101266528	0.227101824
NMB	6.29E-05	0.999937053	-5.31595553	0.022428978
NME1	6.22E-05	0.99993783	1.194311414	2.28877799
NME2	6.16E-05	0.999938423	0.740301832	1.671485864
NME4	6.15E-05	0.999938548	0.975803415	1.979077418
NMNAT1P1	6.14E-05	0.999938623	-3.441959048	0.074465399
NMNAT2	6.12E-05	0.999938825	-2.027658634	0.240374593
NMT2	6.12E-05	0.999938837	-1.246331848	0.42108722
NMU	6.09E-05	0.999939064	-1.821525762	0.282070236
NNMT	6.07E-05	0.999939338	-0.602695772	0.657444768
NOA1	6.03E-05	0.999939685	-2.894531801	0.123646895
NOB1	5.99E-05	0.999940073	-2.994652652	0.113267724
NOC2L	5.96E-05	0.999940367	-1.883290987	0.259300796
NOC4L	5.94E-05	0.999940571	1.742634962	3.367545507
NOL10	5.89E-05	0.99994111	1.000867579	2.011842735
NOL6	5.86E-05	0.999941436	-0.933460751	0.522044019
NOL9	5.81E-05	0.999941901	-0.619771929	0.650417621
NOLC1	5.74E-05	0.999942584	-1.299310822	0.405962847

NOM1	5.74E-05	0.999942641	-1.95650836	0.246446111
NOMO1	5.72E-05	0.999942806	-0.834563212	0.560671338
NOMO2	5.63E-05	0.999943722	-2.467390849	0.179194999
NOMO3	5.62E-05	0.999943791	1.446580364	2.747385628
NONO	5.61E-05	0.99994387	1.160695455	2.238584621
NOP10	5.57E-05	0.999944302	1.169355187	2.250896279
NOP14	5.56E-05	0.999944419	-0.70431468	0.613277972
NOP16	5.51E-05	0.999944904	-2.433620601	0.183678945
NOP2	5.50E-05	0.999944957	-1.687752205	0.303265035
NOP56	5.50E-05	0.999945003	-1.347934796	0.389837857
NOP58	5.48E-05	0.999945192	0.781058426	1.718911332
NOP9	5.48E-05	0.999945199	-1.318278286	0.399571296
NOS3	5.43E-05	0.999945727	1.136220711	2.214221223
NOTCH4	5.41E-05	0.999945944	-1.165199977	0.441033967
NOTUM	5.38E-05	0.999946162	-3.386151349	0.075749702
NOV	5.36E-05	0.999946405	-0.652119059	0.635495034
NOVA1	5.35E-05	0.999946542	1.157321231	2.230671954
NPAS2	5.33E-05	0.999946703	0.815437772	1.763044945
NPC2	5.32E-05	0.999946785	1.106267912	2.156547485
NPFFR1	5.30E-05	0.99994702	-0.763202749	0.58887396
NPHP3	5.27E-05	0.999947286	0.923477506	1.898621119
NPHS2	5.27E-05	0.999947337	-2.133277667	0.226548664
NPM1	5.22E-05	0.999947785	-0.94570743	0.518106155
NPM1P27	5.20E-05	0.999947995	1.066013967	2.093711808
NPM1P30	5.18E-05	0.999948186	-0.91503953	0.527968852
NPM1P41	5.13E-05	0.99994871	-2.627314092	0.141143029
NPM3	5.10E-05	0.99994898	-1.240944781	0.422939202
NPNT	5.06E-05	0.999949387	1.10622882	2.158418924
NPR2	5.04E-05	0.999949632	-0.899421219	0.535960171
NPR3	5.02E-05	0.999949778	-2.05310029	0.230849855
NPRL2	4.94E-05	0.99995057	-2.02785126	0.24328296
NPTXR	4.91E-05	0.999950923	0.716040905	1.645600972
NPY1R	4.90E-05	0.999950953	-2.932849401	0.127875815
NR1H3	4.90E-05	0.999950975	0.791075095	1.731016259
NR1H4	4.90E-05	0.999950985	-1.827965761	0.281291389
NR2C2AP	4.82E-05	0.999951801	0.759856824	1.693750141
NR2F1-AS1	4.79E-05	0.999952079	-1.97903106	0.241959824
NR2F2-AS1	4.79E-05	0.999952128	-0.846129866	0.555098704
NR3C2	4.78E-05	0.999952184	-1.457827205	0.355888921
NRARP	4.78E-05	0.999952186	-0.991581151	0.500471314
NRG4	4.76E-05	0.999952353	-0.572429347	0.672363507
NRM	4.76E-05	0.99995239	1.997756747	4.110952518
NSA2	4.73E-05	0.99995265	0.855556377	1.811060863
NSDHL	4.71E-05	0.999952865	-0.877980028	0.542122529
NSMCE1	4.70E-05	0.999952964	0.788317284	1.73029324
NSMF	4.70E-05	0.999952965	0.95412923	1.938963582
NSUN2	4.69E-05	0.999953087	-0.646896758	0.637701924
NSUN5	4.69E-05	0.999953124	-1.788586867	0.281620628
NT5C3B	4.66E-05	0.999953352	1.019988923	2.031507098
NT5DC2	4.66E-05	0.99995344	-1.223070988	0.425208089
NT5DC3	4.64E-05	0.999953599	-2.571137409	0.155680264
NTF4	4.64E-05	0.999953621	1.175024898	2.258035915
NTMT1	4.60E-05	0.999954003	0.742748137	1.673589609
NTN4	4.59E-05	0.999954099	1.590890714	3.062486661
NTRK2	4.57E-05	0.999954256	0.811172234	1.757030734
NTSR1	4.53E-05	0.999954666	-1.728761227	0.297124974
NUAK1	4.51E-05	0.99995487	1.402644126	2.655991497
NUDC	4.50E-05	0.999954992	-1.950332697	0.254061639
NUDT15	4.50E-05	0.99995501	-1.292035516	0.407483147
NUDT16	4.48E-05	0.999955158	-2.69072952	0.153853057
NUDT16L1	4.42E-05	0.999955797	-1.419693011	0.373673615
NUDT19	4.41E-05	0.999955949	-3.453687866	0.087145425
NUDT5	4.40E-05	0.999956015	1.629655108	3.095413878
NUDT8	4.38E-05	0.999956186	1.282354131	2.443371308
NUF2	4.36E-05	0.9999564	-0.82621131	0.562152026
NUMB	4.32E-05	0.999956767	-3.375121198	0.076741494
NUP155	4.31E-05	0.999956891	0.623628228	1.540900278
NUP188	4.31E-05	0.999956891	1.165631604	2.245686226
NUP205	4.29E-05	0.99995714	1.069535004	2.099106187
NUP210	4.26E-05	0.999957361	1.003252094	2.005167093
NUP35	4.25E-05	0.999957514	-0.78783468	0.578506047
NUP85	4.16E-05	0.999958357	-1.397615391	0.376886979
NUP93	4.11E-05	0.999958939	1.054069949	2.07707026
NUP98	4.07E-05	0.99995927	1.334261896	2.526586027
NUSAP1	4.04E-05	0.999959606	2.041551981	4.254285503
NUTF2	4.02E-05	0.999959831	-2.150454784	0.213537015
NUTM2G	4.00E-05	0.999960034	0.948441329	1.930611571
NWD1	3.98E-05	0.999960163	-1.471256769	0.359827467
NXN	3.98E-05	0.999960166	-0.868131371	0.547288664
NXPE4	3.98E-05	0.999960233	-3.447345886	0.084362678
NXT1	3.97E-05	0.999960311	0.934431408	1.911816801
OAF	3.95E-05	0.999960507	1.280909251	2.431407336
OAS1	3.93E-05	0.99996072	0.667818425	1.58957509
OAS2	3.88E-05	0.99996118	-1.601394732	0.329298382
ODC1	3.86E-05	0.999961384	0.793657067	1.733985788
ODF2	3.78E-05	0.999962155	0.904214168	1.872420614
OFD1P17	3.78E-05	0.999962201	-2.051083587	0.236325169
OGDHL	3.76E-05	0.999962353	1.297035385	2.459032676
OGN	3.76E-05	0.999962377	0.657637009	1.579035524
OLA1	3.76E-05	0.999962389	0.597693063	1.513802897
OLFM4	3.75E-05	0.99996254	1.572639935	2.978397743
OPA1	3.74E-05	0.999962618	0.684555652	1.60773573
OPHN1	3.72E-05	0.99996281	-2.572086236	0.160594729

OPTN	3.69E-05	0.999963097	1.26615925	2.406259751
OR10AB1P	3.69E-05	0.999963141	-0.681482805	0.623425882
OR2A1-AS1	3.68E-05	0.999963248	-2.208129988	0.209652814
OR2A7	3.66E-05	0.999963412	0.742602639	1.673916486
OR52B5P	3.65E-05	0.99996352	-2.469540128	0.165082879
OR52H2P	3.63E-05	0.999963734	-3.440369583	0.087143809
OR5BK1P	3.62E-05	0.999963772	-1.510317088	0.345411672
OR5BT1P	3.62E-05	0.999963793	-1.226970648	0.425352485
OR5E1P	3.62E-05	0.999963815	0.678119191	1.601656814
OR5P1P	3.59E-05	0.999964053	-1.366794019	0.384957007
OR5P2	3.58E-05	0.999964198	0.651318758	1.570988486
OR5P4P	3.53E-05	0.999964698	-0.814924725	0.567025005
ORC1	3.47E-05	0.999965273	2.418576658	5.556071754
ORC5	3.44E-05	0.999965588	-1.069168029	0.476267717
ORC6	3.43E-05	0.999965724	-0.865538099	0.548669301
ORM1	3.42E-05	0.999965843	3.27783736	9.781311116
OSBPL10	3.41E-05	0.999965856	-2.009943304	0.247599286
OSBPL10-AS1	3.39E-05	0.999966068	1.445798621	2.724702969
OSMR-AS1	3.36E-05	0.999966379	-1.493506942	0.3530124
OTOP1	3.35E-05	0.999966507	0.924826243	1.899254185
OTUD1	3.35E-05	0.999966542	1.960404594	3.913792904
OVCH1	3.33E-05	0.999966712	0.990585933	1.993626995
OVCH2	3.33E-05	0.999966747	-2.543170226	0.163850551
OVGP1	3.31E-05	0.999966872	1.249681691	2.378031263
OVOL2	3.28E-05	0.999967179	-1.741442394	0.298795367
OVOS2	3.28E-05	0.999967245	1.360314007	2.567875326
OXA1L	3.27E-05	0.999967271	1.352756615	2.556262026
OXLD1	3.26E-05	0.999967401	-3.238692259	0.103299119
OXNAD1	3.25E-05	0.999967539	0.934330028	1.911659516
OXSM	3.24E-05	0.999967604	1.051098851	2.074008775
OXTR	3.24E-05	0.99996761	-1.481583129	0.357520744
P2RX5	3.24E-05	0.999967617	2.769636796	7.021460051
P2RY11	3.22E-05	0.999967791	-1.360439312	0.389283151
P3H2	3.14E-05	0.999968569	1.357724298	2.565352333
P4HA2	3.14E-05	0.999968616	1.054283321	2.077706007
P4HB	3.12E-05	0.999968777	-1.820204519	0.276312322
PA2G4	3.04E-05	0.999969645	-2.456838404	0.161916087
PABPC1L	3.00E-05	0.999970043	0.836018461	1.788501247
PABPC4	2.96E-05	0.99997036	1.624477203	3.170088394
PAICS	2.96E-05	0.999970365	-1.674744812	0.312764768
PAK1IP1	2.95E-05	0.999970533	0.703231605	1.628673206
PAK3	2.94E-05	0.999970567	-1.509838938	0.347344408
PALB2	2.94E-05	0.999970622	-1.096384078	0.467305052
PALMD	2.92E-05	0.999970844	0.943941555	1.933608002
PAPLN	2.91E-05	0.999970887	-1.071179162	0.47522174
PAPPA	2.90E-05	0.999970969	-5.124572276	0.020736885
PAPSS1	2.90E-05	0.999971008	-1.609671871	0.327070147
PAQR5	2.89E-05	0.999971053	-1.494293415	0.35092306
PAQR8	2.89E-05	0.999971101	0.554809956	1.469728776
PARD3B	2.88E-05	0.999971182	1.371093844	2.621170074
PARK2	2.88E-05	0.999971202	-2.245441745	0.194554539
PARK7	2.86E-05	0.999971362	1.191543812	2.291396379
PARL	2.85E-05	0.999971461	0.98016984	1.972927631
PARP1	2.84E-05	0.99997158	1.188753415	2.279668978
PARP11	2.84E-05	0.999971602	-2.702301905	0.153304929
PARPBP	2.82E-05	0.999971793	1.56008498	2.949178087
PARVA	2.81E-05	0.999971902	0.779370506	1.717206465
PASK	2.80E-05	0.999971976	-1.45722198	0.357280901
PATL2	2.80E-05	0.999972011	1.473391061	2.809461572
PATZ1	2.77E-05	0.999972261	1.490112941	2.816273535
PAX8	2.74E-05	0.999972554	-1.58180031	0.33324283
PAX8-AS1	2.73E-05	0.999972682	-1.602427961	0.32009111
PAX9	2.73E-05	0.999972708	0.939046418	1.917599965
PAXIP1	2.72E-05	0.999972818	-1.115024792	0.459842356
PAXIP1-AS1	2.70E-05	0.999973009	-2.090029619	0.234312184
PBDC1	2.70E-05	0.999973036	-2.983050978	0.118095935
PBK	2.69E-05	0.999973096	1.172462255	2.262339841
PBX1	2.69E-05	0.999973126	-2.080235695	0.220733921
PBX4	2.68E-05	0.999973204	1.116793784	2.171133897
PCAT1	2.66E-05	0.999973426	0.673005289	1.594844944
PCAT2	2.66E-05	0.999973433	-2.397531751	0.17863966
PCBD1	2.65E-05	0.999973549	-2.821897393	0.1369537
PCBP1-AS1	2.64E-05	0.999973559	-3.838217661	0.069762346
PCCB	2.64E-05	0.999973568	-1.815517604	0.27781735
PCDH11X	2.62E-05	0.999973794	-1.007113246	0.497342096
PCDH12	2.62E-05	0.999973808	-1.292924783	0.405980127
PCDH19	2.62E-05	0.999973826	0.929447414	1.904954454
PCDH7	2.61E-05	0.999973876	-1.669534517	0.314301681
PCDHA10	2.60E-05	0.999973962	1.179717935	2.26548011
PCDHA11	2.60E-05	0.999974032	2.305785771	5.118467139
PCDHA12	2.60E-05	0.999974033	0.525855309	1.440424411
PCDHA2	2.60E-05	0.999974046	0.620257948	1.537397339
PCDHA3	2.56E-05	0.999974368	-1.943380351	0.258822299
PCDHA4	2.56E-05	0.999974385	-3.67689444	0.069393117
PCDHA5	2.54E-05	0.999974596	-1.445351068	0.360446185
PCDHA6	2.54E-05	0.999974639	0.747272454	1.679150316
PCDHA8	2.53E-05	0.999974664	0.934152167	1.911575973
PCDHA9	2.53E-05	0.999974708	-1.607118674	0.321614693
PCDHAC1	2.53E-05	0.99997472	-2.838785569	0.138260996
PCDHAC2	2.52E-05	0.999974842	-1.170960604	0.442657144
PCDHB10	2.52E-05	0.999974844	1.12884884	2.186948537
PCDHB11	2.51E-05	0.999974908	-1.162904738	0.44107791
PCDHB12	2.50E-05	0.999974995	1.838215259	3.603471713

PCDHB13	2.50E-05	0.999975008	0.958015895	1.948987614
PCDHB14	2.49E-05	0.999975123	-1.577617516	0.332714029
PCDHB15	2.48E-05	0.999975221	-3.526041739	0.059339943
PCDHB16	2.47E-05	0.999975337	0.819492737	1.764979535
PCDHB17P	2.46E-05	0.999975371	-2.506888748	0.175865306
PCDHB18P	2.44E-05	0.999975628	1.133148532	2.201853749
PCDHB19P	2.43E-05	0.999975666	-2.157058683	0.218794649
PCDHB2	2.42E-05	0.999975809	-2.024065016	0.244630178
PCDHB3	2.42E-05	0.999975843	0.961174421	1.949766166
PCDHB4	2.41E-05	0.999975867	-1.30687681	0.397514586
PCDHB5	2.39E-05	0.999976084	-0.659575139	0.632848291
PCDHB6	2.39E-05	0.999976111	1.782275838	3.568506865
PCDHB7	2.39E-05	0.999976117	-1.902600329	0.267233479
PCDHB8	2.38E-05	0.999976231	-1.06102802	0.478935684
PCDHB9	2.37E-05	0.999976253	-2.393495733	0.184937403
PCDHGA1	2.37E-05	0.999976322	-1.148325612	0.448700109
PCDHGA10	2.37E-05	0.999976328	1.434403099	2.70285884
PCDHGA11	2.35E-05	0.999976476	1.07644982	2.110727441
PCDHGA12	2.34E-05	0.999976554	-0.895876276	0.537388003
PCDHGA2	2.31E-05	0.999976923	-1.710262542	0.305339072
PCDHGA3	2.31E-05	0.999976943	-1.055231566	0.480773389
PCDHGA4	2.27E-05	0.999977263	-1.312786044	0.401620064
PCDHGA5	2.25E-05	0.999977472	-1.985398215	0.249029597
PCDHGA6	2.25E-05	0.999977539	1.557198179	2.944023254
PCDHGA7	2.24E-05	0.999977604	-1.883570535	0.267675402
PCDHGA8	2.24E-05	0.999977627	1.152501068	2.224128753
PCDHGA9	2.23E-05	0.999977663	-2.085282168	0.235396459
PCDHGB1	2.23E-05	0.999977668	1.189091076	2.280477225
PCDHGB2	2.22E-05	0.999977783	-1.740436912	0.294478524
PCDHGB3	2.17E-05	0.999978268	-1.69501659	0.306059793
PCDHGB4	2.15E-05	0.99997848	-2.032851619	0.242161382
PCDHGB5	2.15E-05	0.999978511	-0.692344029	0.617316351
PCDHGB6	2.14E-05	0.999978643	-0.833498699	0.559647741
PCDHGB7	2.11E-05	0.999978877	-1.262575089	0.416567384
PCDHGB8P	2.10E-05	0.999978975	1.115413037	2.168500959
PCDHGB9P	2.09E-05	0.999979085	0.999042049	2.008573058
PCDHGC4	2.06E-05	0.999979404	-2.712431392	0.144809496
PCED1B	2.05E-05	0.99997947	-0.860331698	0.549962542
PCED1B-AS1	2.05E-05	0.999979479	-1.605729453	0.327956531
PCGF1	2.03E-05	0.999979729	-1.441562139	0.367569593
PCGF6	2.02E-05	0.999979817	-0.644227658	0.639626546
PCID2	2.02E-05	0.999979837	-2.588763206	0.152119052
PCMTD1	2.01E-05	0.999979937	1.021723651	2.030542984
PCNA	2.00E-05	0.999979981	-0.876601696	0.544464943
PCOLCE2	1.97E-05	0.999980297	-0.808219348	0.570429727
PCSK1	1.97E-05	0.999980317	-0.971715251	0.509687987
PCSK5	1.96E-05	0.999980383	2.344396538	5.135357082
PCSK6	1.96E-05	0.999980405	-0.882563876	0.540535329
PCSK9	1.96E-05	0.999980423	-1.67131062	0.305992302
PDAP1	1.95E-05	0.999980475	-1.470405074	0.358375597
PDCD11	1.94E-05	0.999980606	-2.447292262	0.182235546
PDCD2	1.92E-05	0.999980825	-0.885775205	0.540026493
PDCD2L	1.91E-05	0.999980867	-0.645954274	0.638714887
PDCD5	1.90E-05	0.999981032	-3.269328241	0.078477573
PDCD6	1.88E-05	0.99998125	-3.239876356	0.084030096
PDCL3	1.87E-05	0.999981292	-3.460082035	0.081426363
PDE1B	1.86E-05	0.9999814	-0.684129514	0.621901104
PDE1C	1.86E-05	0.999981403	2.552848762	6.317623653
PDE3B	1.86E-05	0.999981405	0.785456162	1.724692065
PDE4B	1.85E-05	0.999981513	0.892227542	1.856369636
PDE4DIP	1.84E-05	0.999981606	0.833492262	1.782652681
PDE5A	1.84E-05	0.999981621	1.670455672	3.185999341
PDE7A	1.83E-05	0.999981652	1.480684744	2.793757797
PDE9A	1.82E-05	0.999981797	-2.061856223	0.238149204
PDGFA	1.82E-05	0.9999818	-1.491473097	0.354485105
PDGFB	1.81E-05	0.999981881	1.159258991	2.238880522
PDGFRA	1.81E-05	0.999981885	1.312732238	2.485416791
PDHA1	1.78E-05	0.999982197	-0.635204691	0.643389152
PDHB	1.77E-05	0.999982294	0.830561768	1.778748255
PDIA4	1.77E-05	0.9999823	1.631403158	3.09925533
PDIA5	1.76E-05	0.999982385	-2.244983523	0.193338326
PDIA6	1.75E-05	0.999982527	-0.621187022	0.650079781
PDK1	1.73E-05	0.999982653	-2.771001766	0.121254269
PDK3	1.73E-05	0.999982722	-1.159878592	0.447437194
PDLIM3	1.73E-05	0.999982739	1.59630309	3.033530953
PDP2	1.72E-05	0.999982808	-1.340038388	0.39047066
PDPN	1.71E-05	0.999982883	-2.159355597	0.223103041
PDRG1	1.70E-05	0.999982953	0.730733004	1.659782882
PDSS1	1.70E-05	0.999983015	-0.548131111	0.683767569
PDZD2	1.70E-05	0.999983036	1.186368077	2.278315501
PDZD7	1.68E-05	0.999983175	1.52749215	2.924342898
PDZK1	1.68E-05	0.999983192	-2.096533527	0.233432566
PDZK1IP1	1.68E-05	0.999983211	0.560927065	1.475693332
PDZRN3	1.68E-05	0.999983249	1.138422745	2.201739859
PEAK1	1.67E-05	0.999983259	-1.828769123	0.268164948
PEBP1	1.66E-05	0.999983356	-2.28151718	0.205560879
PEF1	1.66E-05	0.99998338	0.846721531	1.799111529
PELI2	1.63E-05	0.999983706	-1.029909367	0.489663486
PELP1	1.62E-05	0.999983811	-1.223079955	0.428233304
PER3	1.62E-05	0.999983832	-4.670093092	0.034665944
PES1	1.60E-05	0.999983968	-2.726118785	0.141983908
PET117	1.60E-05	0.999983973	1.025398477	2.035606871
PEX10	1.59E-05	0.999984105	-0.95477454	0.515404786

PEX11A	1.56E-05	0.999984352	1.844152455	3.617186289
PEX5	1.55E-05	0.999984454	1.762596991	3.426963985
PFAS	1.55E-05	0.99998449	2.807323214	8.201802575
PFDN2	1.55E-05	0.999984509	1.155781731	2.228514757
PFDN4	1.55E-05	0.99998453	-1.776760172	0.289871796
PFDN5	1.54E-05	0.999984567	-0.855031801	0.552619437
PFDN6	1.53E-05	0.999984745	-4.64873862	0.022518593
PFKFB3	1.52E-05	0.999984758	-3.886049279	0.056548065
PFKFB4	1.52E-05	0.999984763	-0.814859612	0.56813495
PFKM	1.51E-05	0.999984869	-1.9550636	0.254286463
PFKP	1.51E-05	0.999984949	-2.560859671	0.147734263
PFN1	1.50E-05	0.999984964	1.050525278	2.07188226
PGAM1	1.50E-05	0.999984971	-0.80084224	0.573949351
PGAM1P5	1.50E-05	0.999984976	-1.607117185	0.318861823
PGAM5	1.47E-05	0.999985252	1.548899577	2.927198926
PGBD1	1.47E-05	0.999985273	-1.797383238	0.286055742
PGBD5	1.47E-05	0.999985328	0.857004539	1.811370404
PGD	1.46E-05	0.999985378	-1.041687672	0.484472555
PGF	1.45E-05	0.999985457	-3.555212088	0.073041156
PGK1	1.45E-05	0.999985484	0.647344014	1.566358177
PGLYRP3	1.45E-05	0.999985492	1.894732798	3.810543112
PGLYRP4	1.44E-05	0.999985585	-1.150413249	0.450460329
PGM2	1.42E-05	0.999985756	-1.920086529	0.258956325
PGP	1.42E-05	0.999985808	-0.538853926	0.688032695
PHB	1.42E-05	0.999985847	1.315934248	2.492696964
PHB2	1.41E-05	0.999985927	1.7981728	3.519556966
PHC1	1.40E-05	0.999985959	-3.77157925	0.065949382
PHF1	1.39E-05	0.99998607	-4.687720173	0.021907738
PHF14	1.39E-05	0.999986098	-2.528976671	0.165330256
PHF21A	1.39E-05	0.99998613	1.467584819	2.788658619
PHF23	1.38E-05	0.999986211	-1.682271741	0.311535949
PHF5A	1.37E-05	0.999986271	-2.305175878	0.201824502
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PHKA1	1.36E-05	0.999986351	-1.518749673	0.34887684
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PI3	1.36E-05	0.9999864	0.689535219	1.613635717
PID1	1.36E-05	0.999986402	1.178402563	2.279467554
PIF1	1.36E-05	0.999986407	-3.24503542	0.092352177
PIFO	1.35E-05	0.999986476	-0.973915827	0.508868488
PIH1D1	1.34E-05	0.999986592	3.100934592	9.14956137
PIK3AP1	1.33E-05	0.999986689	3.500003252	12.58109541
PIM2	1.32E-05	0.99998677	1.512916761	2.916227895
PINX1	1.31E-05	0.999986894	0.53955707	1.453993529
PIP5K1B	1.30E-05	0.999986999	0.806580119	1.749628395
PIR	1.30E-05	0.999987003	0.878525158	1.843911981
PITHD1	1.29E-05	0.99998705	-1.467884497	0.361141203
PITRM1	1.29E-05	0.999987055	-0.932840548	0.523520949
PIWIL4	1.29E-05	0.999987132	-3.188774653	0.087932082
PKD2	1.28E-05	0.99998719	1.27400061	2.432109175
PKHD1	1.28E-05	0.999987199	1.02429897	2.035354216
PKM	1.28E-05	0.99998724	-2.012883768	0.243276774
PKNOX2	1.28E-05	0.999987248	-1.23151895	0.424584119
PKP1	1.27E-05	0.999987334	1.116841307	2.170025467
PLA2G16	1.26E-05	0.999987415	-1.225414018	0.423164635
PLA2G4F	1.25E-05	0.999987481	2.172639804	4.5958891
PLA2R1	1.25E-05	0.999987515	-1.199874213	0.435045163
PLAUR	1.25E-05	0.999987533	1.667048381	3.211877022
PLCB1	1.24E-05	0.999987551	1.18030802	2.266273445
PLCB1-IT1	1.24E-05	0.999987614	2.615291066	6.144014063
PLCB2	1.23E-05	0.999987676	-1.812393709	0.275840761
PLCL2	1.23E-05	0.999987687	-6.124294722	0.013822911
PLD1	1.23E-05	0.999987727	-1.853172	0.276197882
PLD5	1.22E-05	0.999987755	0.74893338	1.680786586
PLD6	1.21E-05	0.999987916	-1.917935641	0.2572466
PLEKHA4	1.20E-05	0.999987997	1.272570069	2.4412098
PLEKHA5	1.19E-05	0.999988147	-1.178939355	0.441172468
PLEKHB1	1.18E-05	0.999988176	2.112388115	4.339427568
PLEKHD1	1.18E-05	0.999988188	1.169254607	2.250906257
PLEKHF1	1.17E-05	0.999988258	2.015824786	4.056845627
PLEKHG1	1.17E-05	0.999988276	-2.477978524	0.176822396
PLEKHH2	1.17E-05	0.999988302	-0.998768556	0.4981881
PLEKHJ1	1.17E-05	0.999988318	1.136938365	2.202085162
PLEKHM3	1.16E-05	0.999988356	1.462069906	2.779603388
PLEKHS1	1.15E-05	0.999988466	-2.97849886	0.115644557
PLGLB2	1.15E-05	0.999988489	0.756053546	1.690629434
PLIN1	1.15E-05	0.999988511	1.211339251	2.315965655
PLIN5	1.15E-05	0.99998853	-1.724943962	0.301048608
PLK1	1.13E-05	0.999988726	1.11021581	2.159861627
PLK3	1.12E-05	0.999988765	-2.581647824	0.160306119
PLPP3	1.12E-05	0.999988789	-2.252668132	0.202185493
PLPP4	1.12E-05	0.999988798	-3.449488268	0.070059246
PLPPR4	1.12E-05	0.999988835	1.283630807	2.441837386
PLS3-AS1	1.10E-05	0.999989015	-1.304692456	0.402384933
PLXDC1	1.09E-05	0.999989064	1.078026583	2.112392321
PLXDC2	1.09E-05	0.99998908	0.648701847	1.569230092
PM20D1	1.08E-05	0.999989232	0.57608345	1.491160746
PMEPA1	1.08E-05	0.999989248	-2.234084662	0.21179236
PMM2	1.06E-05	0.999989395	2.023094778	4.135487655
PMP22	1.06E-05	0.999989395	-1.353885604	0.391113895
PMPCA	1.06E-05	0.999989404	0.844494471	1.796753711
PNLIPRP3	1.06E-05	0.99998944	-0.756637753	0.591271173
PNMA1	1.06E-05	0.999989445	-1.155387206	0.447023353
PNMA2	1.05E-05	0.999989498	0.555971974	1.471166031

PNMAL1	1.05E-05	0.999989499	1.39566841	2.638035248
PNN	1.04E-05	0.99998962	-3.055080363	0.098279263
PNO1	1.00E-05	0.999989967	-2.518907266	0.16589522
PNP	9.96E-06	0.999990038	1.976505111	4.008143385
PNPT1	9.95E-06	0.999990048	1.361021222	2.573760725
PNPT1P1	9.92E-06	0.99999008	-3.104665053	0.106833571
POC1A	9.92E-06	0.999990081	-1.515403505	0.344096248
PODNL1	9.89E-06	0.999990108	1.204398267	2.315137542
PODXL	9.86E-06	0.999990138	-3.967291142	0.039296004
PODXL2	9.78E-06	0.999990223	1.79419158	3.475637817
POF1B	9.78E-06	0.999990224	-1.897271534	0.25775252
POLA2	9.64E-06	0.999990357	0.649140961	1.570136646
POLD1	9.60E-06	0.999990405	1.197293562	2.300203337
POLD2	9.59E-06	0.999990411	2.466280566	5.585849334
POLD4	9.55E-06	0.999990448	-0.590847181	0.663555508
POLDIP2	9.53E-06	0.999990465	-1.304964835	0.404459045
POLE	9.37E-06	0.999990626	0.875472607	1.837024405
POLE3	9.35E-06	0.999990652	-0.792076826	0.576850871
POLG2	9.30E-06	0.999990703	0.772873603	1.709384996
POLR1A	9.30E-06	0.999990704	1.509512911	2.861709626
POLR1B	9.28E-06	0.999990723	-1.851493914	0.277077321
POLR1C	9.27E-06	0.999990727	1.215510816	2.323276081
POLR1D	9.27E-06	0.999990733	-1.91472999	0.264763472
POLR1E	9.26E-06	0.999990736	-1.015032178	0.494674054
POLR2B	9.26E-06	0.999990741	1.007127722	2.010761248
POLR2C	9.24E-06	0.999990763	1.413937732	2.665393045
POLR2G	9.22E-06	0.999990782	0.77447763	1.710870741
POLR2H	9.13E-06	0.999990866	-2.666858469	0.154536547
POLR3A	9.12E-06	0.999990881	-1.290755897	0.404304032
POLR3B	9.10E-06	0.999990898	-1.624889894	0.317810814
POLR3D	9.10E-06	0.999990904	1.244784773	2.374777816
POLR3E	9.03E-06	0.999990968	-2.509420685	0.165559995
POLR3G	8.94E-06	0.999991057	-1.55162733	0.338980845
POLR3H	8.93E-06	0.999991068	2.089130711	4.510597251
POLR3K	8.93E-06	0.999991074	1.713750734	3.283153549
POP1	8.78E-06	0.999991216	0.655938405	1.575642565
POP4	8.74E-06	0.999991264	-1.806159568	0.275159597
POP7	8.70E-06	0.999991295	0.562117255	1.476982842
POT1-AS1	8.68E-06	0.999991317	-1.749761762	0.292195954
POTEF	8.67E-06	0.99999133	-1.077433505	0.473354333
POU2F3	8.66E-06	0.999991343	-0.842864383	0.557391978
POU5F1B	8.54E-06	0.999991462	-1.243669445	0.421641361
POU5F2	8.53E-06	0.999991467	1.129787531	2.189246568
POU6F1	8.52E-06	0.999991481	-1.704892961	0.306332071
PPA1	8.47E-06	0.999991534	1.741336894	3.360427133
PPAN	8.37E-06	0.999991625	0.958509095	1.944874668
PPARA	8.34E-06	0.999991657	-0.876566472	0.543545224
PPARG	8.33E-06	0.999991666	0.957157896	1.94302987
PPARGC1A	8.21E-06	0.999991791	0.835576857	1.785193459
PPARGC1B	8.20E-06	0.999991796	-3.642314511	0.048397917
PPAT	8.13E-06	0.999991874	0.654474058	1.575912368
PPFIA2	8.07E-06	0.999991927	-5.638238489	0.020004448
PPIA	8.07E-06	0.999991928	0.761751665	1.696091631
PPIAP22	8.05E-06	0.999991946	-0.702716888	0.613831376
PPIB	8.00E-06	0.999992002	1.01972447	2.038034769
PPIF	7.77E-06	0.999992233	-1.849665811	0.276471545
PPIH	7.76E-06	0.999992236	-2.680874973	0.154324029
PPIL1	7.76E-06	0.99999224	1.209260913	2.322575676
PPM1F	7.73E-06	0.99999227	-1.414138751	0.375007441
PPM1G	7.68E-06	0.999992323	-1.154606239	0.448291015
PPM1L	7.65E-06	0.999992346	-2.066069046	0.23851089
PPM1M	7.56E-06	0.999992443	1.57357231	2.976710136
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PPP1R14B	7.29E-06	0.999992707	-1.158409243	0.44770474
PPP1R16A	7.16E-06	0.999992845	-1.625567979	0.320741094
PPP1R1B	7.15E-06	0.999992851	-1.030500246	0.486467277
PPP1R3C	7.01E-06	0.999992994	1.204518522	2.30894988
PPP1R3F	6.95E-06	0.999993052	0.987460794	1.983676782
PPP1R7	6.90E-06	0.999993103	0.800512736	1.742492556
PPP1R8	6.79E-06	0.999993213	-1.584680954	0.333343701
PPP1R8P1	6.74E-06	0.999993265	-2.5939089	0.1557374
PPP2R2B	6.73E-06	0.999993265	-1.645466327	0.316916644
PPP3CC	6.67E-06	0.99999333	1.321973234	2.505240859
PPP4R1L	6.65E-06	0.999993353	1.684024042	3.241727527
PPP4R4	6.64E-06	0.99999336	-3.664871211	0.066732797
PPRC1	6.59E-06	0.999993405	-0.846709874	0.555560606
PPTC7	6.54E-06	0.999993458	0.591308105	1.507464302
PRADC1	6.52E-06	0.999993483	-0.755169261	0.592206998
PRC1	6.51E-06	0.999993486	-2.643725705	0.154791155
PRDM15	6.49E-06	0.999993507	-1.049748898	0.48076722
PRDM2	6.49E-06	0.99999351	-2.096427709	0.217597426
PRDM8	6.49E-06	0.999993511	0.769017621	1.704642652
PRDX1	6.27E-06	0.999993726	-2.163593962	0.220012669
PRDX1P1	6.24E-06	0.99999376	1.921723653	3.789194663
PRDX3	6.14E-06	0.999993863	0.771512888	1.707735177
PRDX3P2	6.08E-06	0.999993923	1.445657932	2.724736825
PRDX3P4	6.07E-06	0.999993927	-2.164036335	0.21659474
PRDX4	6.03E-06	0.999993973	-0.891727364	0.537549908
PRDX6	5.93E-06	0.999994066	0.913729308	1.884076465
PREB	5.92E-06	0.99999408	-1.819648459	0.281127101
PRELID1	5.89E-06	0.999994115	-1.519787615	0.348634435
PRELID3A	5.89E-06	0.999994115	-1.946473099	0.253974686

PRELID3B	5.87E-06	0.999994133	1.296068029	2.456087351
PRELP	5.86E-06	0.999994139	1.135731996	2.205442334
PRG4	5.84E-06	0.999994161	1.00394209	2.010907367
PRICKLE1	5.79E-06	0.999994207	-0.798963654	0.574226563
PRICKLE2	5.72E-06	0.999994279	-1.311148288	0.402652751
PRICKLE2-AS1	5.60E-06	0.999994403	1.165174484	2.243828977
PRICKLE2-AS3	5.58E-06	0.999994418	-2.102756088	0.217027451
PRKAA2	5.49E-06	0.999994506	-2.568855585	0.167846232
PRKACA	5.40E-06	0.999994595	0.835823225	1.785181024
PRKAG1	5.35E-06	0.99999465	-1.207402074	0.429804161
PRKAG2-AS1	5.33E-06	0.999994667	-1.170058741	0.441800244
PRKAR1B	5.26E-06	0.999994742	-1.273317942	0.412060659
PRKAR2B	5.25E-06	0.99999475	0.546874364	1.461200846
PRKCA	5.24E-06	0.999994762	-1.764013063	0.29313368
PRKCD	5.16E-06	0.999994842	-0.951421358	0.516807855
PRKCDBP	5.14E-06	0.999994864	-1.051911572	0.479552254
PRKD1	5.13E-06	0.999994867	1.496029507	2.835228007
PRKDC	5.11E-06	0.999994889	-2.010785837	0.242118416
PRMT1	5.11E-06	0.999994895	-0.832791886	0.56064685
PRMT2	5.06E-06	0.999994939	1.562467237	2.95716882
PRMT3	5.04E-06	0.999994955	3.253323734	10.56169728
PRMT5	4.97E-06	0.999995032	-2.086675533	0.224686931
PRMT6	4.94E-06	0.999995063	1.396243127	2.635513206
PRMT7	4.93E-06	0.999995075	1.062018944	2.09293476
PRNCR1	4.88E-06	0.999995124	-0.633019748	0.643799469
PRORSD1P	4.85E-06	0.999995149	-2.132344695	0.21976704
PROX1	4.83E-06	0.999995167	0.946240331	1.927664997
PROX2	4.82E-06	0.999995182	-3.733772329	0.07492908
PRPF19	4.81E-06	0.99999519	-2.509810416	0.175496026
PRPF31	4.80E-06	0.999995197	1.483561259	2.809046338
PRPF4	4.78E-06	0.999995217	1.012724962	2.018169703
PRPF8	4.67E-06	0.999995329	-1.207343729	0.429090239
PRPS1	4.67E-06	0.999995334	0.689542041	1.613324862
PRPS2	4.63E-06	0.999995369	-2.952662265	0.104992404
PRPSAP1	4.59E-06	0.999995409	1.200721833	2.301321649
PRR11	4.59E-06	0.999995413	0.862998717	1.819481179
PRR13	4.54E-06	0.999995464	1.072490469	2.105627718
PRR16	4.53E-06	0.999995469	-0.826906038	0.562945167
PRR5	4.50E-06	0.999995496	0.914248561	1.886604996
PRR5-ARHGAP8	4.49E-06	0.999995509	1.420568353	2.677496435
PRR7	4.49E-06	0.999995512	1.534875969	2.899886346
PRR7-AS1	4.47E-06	0.999995531	-1.941251954	0.245914332
PRSS1	4.42E-06	0.999995585	1.271949392	2.417678004
PRSS21	4.40E-06	0.999995596	1.269364477	2.414358682
PRSS37	4.37E-06	0.999995633	0.542433714	1.457062835
PRSS45	4.32E-06	0.999995679	-2.133436891	0.22299088
PRSS50	4.32E-06	0.999995682	1.293229302	2.452282686
PRSS51	4.30E-06	0.999995703	-2.009241002	0.248351866
PRSS55	4.24E-06	0.999995759	-1.254049947	0.414719601
PRTG	4.24E-06	0.999995765	0.51504164	1.429181379
PRX	4.23E-06	0.999995768	-5.634678816	0.020088746
PSAP	4.21E-06	0.999995785	0.938166038	1.917547577
PSAT1	4.21E-06	0.999995789	1.300685807	2.464743288
PSEN1	4.13E-06	0.999995871	0.765699193	1.701809394
PSMA5	4.11E-06	0.999995888	1.585402732	3.001363484
PSMA7	4.10E-06	0.999995897	-2.564409494	0.145625123
PSMB1	4.07E-06	0.999995929	1.192941012	2.286779119
PSMB2	4.07E-06	0.99999593	-0.624709987	0.648390529
PSMB3	4.06E-06	0.999995942	-1.813637402	0.284315853
PSMB4	3.96E-06	0.999996044	0.659543622	1.579876
PSMB5	3.95E-06	0.999996051	-1.528736557	0.343037463
PSMB6	3.94E-06	0.999996061	1.463164151	2.769977891
PSMB7	3.94E-06	0.999996063	-1.339134343	0.395025785
PSMB8	3.93E-06	0.999996073	1.163847949	2.242429651
PSMC1	3.89E-06	0.999996106	-0.797999333	0.574260231
PSMC1P5	3.88E-06	0.999996124	-0.67278782	0.626964053
PSMC1P7	3.87E-06	0.999996132	0.946357487	1.927122927
PSMC3	3.78E-06	0.999996216	0.546152586	1.460445243
PSMC3IP	3.75E-06	0.999996249	1.738025649	3.384772059
PSMC4	3.75E-06	0.999996254	-1.080216057	0.47213442
PSMD13	3.74E-06	0.999996263	-3.007612396	0.101651844
PSMD14	3.73E-06	0.99999627	-3.847982656	0.045901603
PSMD2	3.71E-06	0.999996293	-3.25300492	0.073130016
PSMD3	3.69E-06	0.999996307	-2.210616042	0.215463929
PSMD4	3.60E-06	0.999996397	-1.761918116	0.291169287
PSMD5-AS1	3.58E-06	0.999996416	0.884337743	1.846095513
PSMD7	3.57E-06	0.999996426	1.877490567	3.767328508
PSMD8	3.56E-06	0.999996435	-3.98629465	0.055178298
PSME1	3.54E-06	0.999996459	1.175294682	2.25854366
PSME2	3.47E-06	0.999996525	1.384852641	2.639609001
PSME3	3.44E-06	0.999996559	-3.350728036	0.09542514
PSMG1	3.43E-06	0.999996569	1.071537755	2.102380629
PSMG3	3.39E-06	0.999996613	0.94383429	1.926379687
PSMG4	3.39E-06	0.999996614	0.883305449	1.8477931
PSORS1C1	3.37E-06	0.999996625	0.686916836	1.610364059
PSPH	3.36E-06	0.999996644	-5.785445383	0.012279798
PTBP1	3.35E-06	0.999996651	0.761049041	1.695041497
PTCD3	3.33E-06	0.999996674	-0.703885406	0.612557353
PTCHD1	3.30E-06	0.999996696	-1.25378225	0.419184805
PTDSS1	3.28E-06	0.999996716	0.744146204	1.675447877
PTDSS2	3.27E-06	0.999996727	2.300475409	5.064097581
PTGER4	3.25E-06	0.999996749	-1.492675913	0.352870436
PTGES2	3.23E-06	0.999996774	-1.361193941	0.382548388

PTGIS	3.20E-06	0.999996799	-0.892888259	0.537764201
PTMA	3.19E-06	0.999996808	1.033127916	2.04692648
PTMAP3	3.09E-06	0.99999691	0.989556215	1.986406753
PTP4A1	3.09E-06	0.999996912	1.564115168	2.987660558
PTPN14	3.09E-06	0.999996914	-2.931636957	0.130246894
PTPN21	3.08E-06	0.999996917	1.400054155	2.66779782
PTPRC	3.04E-06	0.999996963	1.706974591	3.346122363
PTPRE	3.03E-06	0.999996966	-1.199335261	0.434209066
PTPRG-AS1	3.03E-06	0.999996968	-1.369919962	0.38565201
PTPRM	3.01E-06	0.999996989	1.789099999	3.476764451
PTPRZ1	3.01E-06	0.999996992	1.39317661	2.631554193
PTRF	3.01E-06	0.999996994	1.488393174	2.806990807
PTRH2	2.99E-06	0.999997005	-1.840674924	0.275405888
PTRHD1	2.99E-06	0.999997006	0.622821434	1.540118006
PTTG1	2.96E-06	0.999997036	-1.275696653	0.412806618
PTX3	2.95E-06	0.999997046	-1.689836641	0.309674522
PUDP	2.95E-06	0.999997048	1.41298948	2.681414842
PUM3	2.95E-06	0.999997049	-3.211562036	0.085276839
PUS1	2.93E-06	0.999997073	-0.878150551	0.543825172
PUS3	2.90E-06	0.999997095	0.855428427	1.812124751
PUS7	2.88E-06	0.999997116	-0.978004075	0.506439502
PVR	2.88E-06	0.999997118	-1.742571139	0.289748025
PVT1	2.88E-06	0.999997119	-1.092754826	0.467230163
PWP1	2.87E-06	0.999997128	-0.80372892	0.572389992
PXDN	2.86E-06	0.999997141	1.374906986	2.595419427
PXN-AS1	2.86E-06	0.999997142	-1.431816308	0.369170268
PYCR1	2.83E-06	0.999997168	-3.208948353	0.104213401
PYCRL	2.78E-06	0.999997218	-2.403364005	0.171691727
PYGL	2.74E-06	0.999997258	0.954570091	1.938712515
PYM1	2.74E-06	0.99999726	-2.740886199	0.147251531
PYROXD2	2.73E-06	0.999997268	0.972661121	1.962571661
QARS	2.73E-06	0.999997271	2.144442309	4.476699869
QDPR	2.71E-06	0.999997287	-1.597942138	0.324926759
QPCTL	2.70E-06	0.999997302	-5.491473228	0.017661601
QRICH2	2.69E-06	0.999997313	1.284221518	2.438724627
QSOX2	2.63E-06	0.999997374	0.941336551	1.921071517
QTRTD1	2.60E-06	0.999997402	-1.681472078	0.311310987
RAB11FIP1P1	2.57E-06	0.999997431	1.816901709	3.583770968
RAB11FIP4	2.54E-06	0.999997459	-2.021550034	0.244567926
RAB17	2.54E-06	0.99999746	-2.949895663	0.129374949
RAB25	2.53E-06	0.999997466	-2.509998156	0.173666176
RAB26	2.53E-06	0.999997466	-1.588186832	0.330413506
RAB27A	2.47E-06	0.999997527	-5.078903501	0.02058592
RAB27B	2.46E-06	0.999997541	-2.333610856	0.195767939
RAB34	2.46E-06	0.999997542	1.045017487	2.064504985
RAB35	2.45E-06	0.999997546	-0.878333433	0.543275849
RAB4B	2.45E-06	0.999997549	1.002060389	2.003337926
RAB8A	2.45E-06	0.999997549	1.070620551	2.102645068
RABEPK	2.44E-06	0.999997563	-0.702891799	0.614327825
RABGAP1	2.39E-06	0.999997611	-3.193267499	0.106347535
RABGAP1L-IT1	2.38E-06	0.999997617	-1.627752443	0.323270225
RABGGTB	2.38E-06	0.999997625	1.659701528	3.161167042
RABL2A	2.37E-06	0.999997634	0.799961286	1.742183342
RAC3	2.34E-06	0.999997661	0.813312646	1.761646263
RACGAP1	2.33E-06	0.999997666	1.802373971	3.498066717
RAD51	2.33E-06	0.999997668	2.019089932	4.058151598
RAD51AP1	2.32E-06	0.999997684	-2.806032306	0.131221347
RAD51B	2.31E-06	0.999997693	-1.856765392	0.268549139
RAD54L	2.29E-06	0.999997714	-2.176867602	0.219285438
RAE1	2.25E-06	0.999997749	-2.178664647	0.216180595
RAG1	2.24E-06	0.999997761	0.585951381	1.501302006
RALGPS1	2.21E-06	0.999997785	-3.496782742	0.085610159
RALYL	2.21E-06	0.999997794	-0.953976083	0.5159025
RAN	2.18E-06	0.999997823	1.255170544	2.388094162
RANBP1	2.17E-06	0.999997833	1.253769272	2.385471802
RANP1	2.16E-06	0.999997839	-3.048148685	0.117337422
RAP1AP	2.16E-06	0.999997842	1.511659045	2.864396057
RAP2C-AS1	2.15E-06	0.999997848	2.045074705	4.147546576
RAPGEF2	2.15E-06	0.999997853	1.277084738	2.424173916
RAPGEF4-AS1	2.14E-06	0.999997858	1.942953367	3.879342647
RAPH1	2.14E-06	0.999997861	1.251167642	2.389253999
RASAL2	2.13E-06	0.999997872	-2.88751853	0.133368802
RASAL2-AS1	2.12E-06	0.999997883	-1.137927887	0.454291732
RASGEF1B	2.11E-06	0.999997893	2.236647714	4.887056364
RASGRF2	2.11E-06	0.999997895	1.510442458	2.854435261
RASGRP3	2.10E-06	0.999997899	-4.198062831	0.048734396
RASL10B	2.10E-06	0.999997903	1.420700729	2.702021667
RASL11B	2.10E-06	0.999997903	-1.264419666	0.416248775
RASSF1	2.10E-06	0.999997905	-1.50987721	0.347573306
RASSF10	2.09E-06	0.999997911	1.484889217	2.804561193
RASSF4	2.08E-06	0.999997919	-2.03443131	0.236670532
RASSF6	2.08E-06	0.99999792	-1.603444707	0.321468024
RASSF8	2.08E-06	0.999997922	-1.76982077	0.285182374
RASSF8-AS1	2.05E-06	0.999997947	-1.555649071	0.33399545
RASSF9	2.05E-06	0.999997954	-1.735993969	0.29604481
RBBP4P1	2.03E-06	0.999997974	-1.934742164	0.249317959
RBCK1	2.01E-06	0.999997989	-4.404231989	0.045847997
RBFOX2	1.99E-06	0.999998012	-1.62907987	0.323017687
RBM28	1.99E-06	0.999998014	1.141224754	2.206040505
RBM3	1.97E-06	0.999998031	0.587282252	1.50272661
RBM38	1.96E-06	0.999998038	1.068440732	2.103317888
RBMS2	1.96E-06	0.999998045	0.988338147	1.984791516
RBMS3	1.95E-06	0.999998048	-1.338999846	0.391596204

RBMS3-AS2	1.93E-06	0.999998065	0.582159826	1.497302846
RBMX2	1.93E-06	0.999998075	0.601311293	1.517294141
RBP4	1.91E-06	0.999998092	0.580315709	1.495250306
RBPMS	1.84E-06	0.999998165	1.116174588	2.170248747
RCAN3	1.83E-06	0.999998167	-1.426005593	0.370147573
RCBTB2	1.81E-06	0.999998191	-1.664755349	0.309135325
RCC1	1.77E-06	0.999998231	0.554844182	1.469474186
RCC2	1.75E-06	0.999998253	1.145850426	2.213833266
RCCD1	1.74E-06	0.999998258	-1.2519938	0.417365483
RCL1	1.73E-06	0.999998267	-0.982232197	0.505000145
RCN1	1.72E-06	0.999998282	0.560968034	1.475408534
RCOR2	1.71E-06	0.999998286	-2.094352168	0.23357335
RECK	1.71E-06	0.999998293	2.152387997	4.682822355
RECQL4	1.70E-06	0.999998295	-2.534401212	0.154251436
RELL1	1.68E-06	0.99999832	1.281860728	2.432432779
RELT	1.66E-06	0.999998341	1.101275568	2.146541148
REPIN1	1.66E-06	0.999998342	-0.776185813	0.583732025
RER1	1.61E-06	0.99999839	1.366827652	2.607138234
RERG	1.61E-06	0.999998391	1.360891824	2.56857826
RERG-AS1	1.60E-06	0.999998401	-2.323617073	0.191115098
RERG-IT1	1.60E-06	0.999998403	-1.603284899	0.325019455
REXO4	1.57E-06	0.999998427	-5.738562152	0.012355623
RFC2	1.57E-06	0.999998432	1.415501625	2.668824149
RFC3	1.55E-06	0.99999845	1.442941441	2.718909364
RFT1	1.54E-06	0.999998457	-2.21508537	0.200981401
RFX3-AS1	1.53E-06	0.99999847	0.748421299	1.681090121
RFX5	1.52E-06	0.999998477	0.575441686	1.490611542
RGCC	1.51E-06	0.999998492	-2.527829217	0.171247956
RGL3	1.51E-06	0.999998494	0.77548281	1.711947779
RGS10	1.48E-06	0.999998515	0.677758974	1.600521289
RGS16	1.48E-06	0.99999852	1.582553577	3.015276792
RGS6	1.48E-06	0.999998521	0.808554998	1.752235292
RGS9	1.45E-06	0.999998554	0.923382101	1.902218486
RHBDD3	1.44E-06	0.999998559	1.393276503	2.627128915
RHBDL2	1.43E-06	0.999998566	0.94922295	1.931670046
RHOB	1.42E-06	0.999998578	-1.772865642	0.282080461
RHOD	1.42E-06	0.999998579	1.236149418	2.364244459
RHOJ	1.41E-06	0.999998593	0.922664583	1.897146893
RHOU	1.41E-06	0.999998594	-0.657851994	0.633788455
RIMS1	1.39E-06	0.999998607	-1.176177077	0.442395038
RIOK1	1.38E-06	0.999998618	-1.336172706	0.39384411
RIPK1	1.37E-06	0.999998635	-3.411741184	0.092918788
RITA1	1.35E-06	0.999998652	-0.688470906	0.620352754
RLIMP1	1.35E-06	0.999998654	-1.384903936	0.380679871
RMND1	1.34E-06	0.999998659	1.586132785	3.003629343
RMST	1.33E-06	0.999998671	0.597402275	1.513382133
RN7SKP240	1.33E-06	0.999998674	-3.403275068	0.083845473
RN7SKP96	1.33E-06	0.999998675	-2.207671313	0.207503641
RN7SL3	1.31E-06	0.999998688	0.888820756	1.852351045
RN7SL330P	1.30E-06	0.999998696	1.335587411	2.523917994
RN7SL368P	1.29E-06	0.999998705	0.747068633	1.680001482
RN7SL413P	1.29E-06	0.99999871	1.602595225	3.055953266
RN7SL471P	1.28E-06	0.999998723	1.414061647	2.707237531
RN7SL473P	1.27E-06	0.999998729	-3.54043522	0.072664922
RN7SL600P	1.27E-06	0.999998729	-2.13395184	0.21947652
RN7SL648P	1.27E-06	0.99999873	-1.304659893	0.404250929
RN7SL68P	1.27E-06	0.999998733	1.167512185	2.248031622
RNA5SP118	1.26E-06	0.999998743	-3.036254095	0.11669052
RNA5SP160	1.26E-06	0.999998744	2.246186946	4.753602227
RNA5SP304	1.24E-06	0.999998762	1.013387794	2.019203831
RNA5SP354	1.23E-06	0.999998768	-1.589541777	0.325067197
RNASEH1	1.21E-06	0.99999879	0.951219124	1.933848194
RNASEH2A	1.21E-06	0.999998791	-1.393871592	0.380399851
RNASEL	1.20E-06	0.999998797	-0.935569214	0.521048578
RNASET2	1.18E-06	0.99999882	1.191573069	2.289979626
RNF113A	1.17E-06	0.999998827	1.933887679	3.978589332
RNF113B	1.15E-06	0.999998854	-2.059546159	0.230884029
RNF130	1.14E-06	0.999998861	0.976454063	1.968107683
RNF150	1.14E-06	0.999998864	1.156962343	2.231976896
RNF152	1.12E-06	0.999998876	-3.910662659	0.04871508
RNF175	1.12E-06	0.99999888	-1.038202814	0.486057413
RNF180	1.12E-06	0.999998881	-0.69166408	0.61809703
RNF181	1.12E-06	0.999998885	1.030540279	2.055942275
RNF183	1.11E-06	0.999998889	1.315528393	2.489014608
RNF19B	1.11E-06	0.999998889	1.789090316	3.564307167
RNF217-AS1	1.11E-06	0.999998893	-2.944679078	0.112948679
RNF24	1.10E-06	0.9999989	-2.043769641	0.24114389
RNF4	1.09E-06	0.999998906	-2.36260004	0.189628624
RNF8	1.09E-06	0.999998907	-5.416362487	0.018765132
RNMTL1	1.08E-06	0.999998921	1.571563016	2.975110262
RNPC3	1.06E-06	0.999998936	1.246967317	2.38756122
RNPS1	1.06E-06	0.999998938	0.978774295	1.970868387
RNU1-122P	1.06E-06	0.999998943	-1.60149571	0.327183573
RNU1-59P	1.06E-06	0.999998943	-1.859634238	0.266307688
RNU1-60P	1.05E-06	0.999998895	-1.737521727	0.294169776
RNU1-85P	1.03E-06	0.999998971	-1.20319286	0.433854751
RNU2-25P	1.03E-06	0.999998972	-1.625372462	0.323550331
RNU2-5P	1.03E-06	0.999998973	-2.495623064	0.170440108
RNU2-63P	1.02E-06	0.999998977	-3.395594068	0.092656284
RNU4-22P	1.01E-06	0.99999899	0.942827621	1.92499054
RNU5A-8P	1.00E-06	0.999998995	0.579983194	1.495507381
RNU5F-1	9.98E-07	0.999999002	-3.176273202	0.103034409
RNU6-1099P	9.90E-07	0.99999901	0.838134569	1.787860099

RNU6-171P	9.58E-07	0.999999042	-1.727513982	0.301423001
RNU6-2	9.56E-07	0.999999044	-4.439857626	0.045559241
RNU6-377P	9.53E-07	0.999999047	-2.207687415	0.214966919
RNU6-418P	9.44E-07	0.999999056	1.545748237	2.926529155
RNU6-509P	9.44E-07	0.999999056	0.968418161	1.957122389
RNU6-674P	9.38E-07	0.999999062	1.498876521	2.835322063
RNVU1-13	9.32E-07	0.999999068	1.598105089	3.037897769
RNY4P25	9.32E-07	0.999999068	-0.761907788	0.58921939
ROCK1P1	9.26E-07	0.999999074	-1.939329818	0.258150782
ROMO1	9.01E-07	0.999999099	-1.170954649	0.4418125
ROPN1B	8.97E-07	0.999999103	0.804877664	1.74802478
ROR1	8.85E-07	0.999999115	1.806942932	3.517773429
ROR1-AS1	8.84E-07	0.999999116	-2.91632341	0.108562228
ROS1	8.71E-07	0.999999129	1.495202583	2.827218669
RP1	8.65E-07	0.999999135	-1.826393976	0.276139909
RP1-102G20.5	8.63E-07	0.999999137	1.344725544	2.540646223
RP11-1023L17.2	8.61E-07	0.999999139	-0.56725952	0.674820925
RP11-102G14.1	8.50E-07	0.99999915	0.912092426	1.882125083
RP11-104N10.2	8.47E-07	0.999999153	-1.594729844	0.330109989
RP11-1060G2.2	8.35E-07	0.999999165	-1.312188807	0.402017737
RP11-107M16.2	8.29E-07	0.999999171	2.101136036	4.302390829
RP11-1094M14.11	8.21E-07	0.999999179	0.755633926	1.688639421
RP11-109D20.1	8.21E-07	0.999999179	-1.465845904	0.358273306
RP11-109J4.1	8.21E-07	0.999999179	0.532030876	1.446446591
RP11-10K16.1	8.17E-07	0.999999183	0.794782809	1.736669862
RP11-1105O14.1	8.03E-07	0.999999197	1.010279414	2.016044751
RP11-1109F11.3	8.02E-07	0.999999198	0.692803224	1.616797074
RP11-1114A5.4	7.98E-07	0.999999202	-1.398115928	0.378275371
RP11-111F16.2	7.97E-07	0.999999203	-1.015630046	0.494518639
RP11-1124B17.1	7.97E-07	0.999999203	-0.631425153	0.645075155
RP11-112J3.16	7.96E-07	0.999999204	0.872708497	1.835823952
RP11-112L18.1	7.85E-07	0.999999215	-2.72549443	0.128294503
RP11-1136G4.2	7.78E-07	0.999999222	1.551272615	2.93604572
RP11-114F10.2	7.77E-07	0.999999223	-2.420130662	0.186321164
RP11-114F10.3	7.73E-07	0.999999227	-2.510820179	0.171842382
RP11-114F3.5	7.66E-07	0.999999234	1.196241619	2.291467882
RP11-1152H14.1	7.64E-07	0.999999236	0.679777029	1.602263829
RP11-116O18.1	7.64E-07	0.999999236	-2.515047338	0.158912277
RP11-119H12.4	7.60E-07	0.99999924	-0.936892328	0.52226649
RP11-11C20.3	7.59E-07	0.999999241	1.0467513	2.065932243
RP11-122G18.9	7.58E-07	0.999999242	-2.721820064	0.145161742
RP11-123K19.1	7.51E-07	0.999999249	1.512493627	2.853569698
RP11-131L12.3	7.49E-07	0.999999251	2.010324115	4.127643395
RP11-1334A24.5	7.39E-07	0.999999261	1.300245106	2.464851073
RP11-134G8.5	7.35E-07	0.999999265	1.496484544	2.823108591
RP11-134G8.7	7.30E-07	0.99999927	-2.061327436	0.237999776
RP11-135J2.3	7.29E-07	0.999999271	1.377817848	2.629728328
RP11-135N5.3	7.15E-07	0.999999285	-1.583273564	0.32752548
RP11-138H8.2	7.13E-07	0.999999287	-2.37014459	0.18649611
RP11-138I1.3	6.91E-07	0.999999309	-3.248087378	0.086054532
RP11-139K1.2	6.77E-07	0.999999323	-0.981448239	0.505936617
RP11-140H17.2	6.75E-07	0.999999325	0.950393709	1.933278098
RP11-141M3.6	6.67E-07	0.999999333	0.726846871	1.655399693
RP11-145A3.1	6.64E-07	0.999999336	3.78467878	14.77910156
RP11-145A3.2	6.56E-07	0.999999344	-1.835818863	0.277569854
RP11-147L13.11	6.39E-07	0.999999361	-1.62203035	0.31649013
RP11-147L13.12	6.37E-07	0.999999363	1.155866199	2.236255803
RP11-147L13.7	6.36E-07	0.999999364	-3.101012783	0.107526183
RP11-147L13.8	6.33E-07	0.999999367	-2.926671666	0.130322924
RP11-152L20.3	6.32E-07	0.999999368	1.044410306	2.065479313
RP11-153M7.5	6.27E-07	0.999999373	-0.694736754	0.617699658
RP11-154D6.1	6.24E-07	0.999999376	0.808535405	1.752098604
RP11-154H23.3	6.24E-07	0.999999376	1.04582789	2.06648746
RP11-157H4.1	6.15E-07	0.999999385	-1.583363179	0.332945509
RP11-157J24.1	6.05E-07	0.999999395	1.847822297	3.647630381
RP11-158H5.8	6.04E-07	0.999999396	-2.800356863	0.12781355
RP11-159D12.2	5.87E-07	0.999999413	-1.25845366	0.414903287
RP11-159D23.2	5.84E-07	0.999999416	0.656001677	1.576511124
RP11-159F24.3	5.81E-07	0.999999419	-0.95680643	0.513874701
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RP11-15A1.2	5.74E-07	0.999999426	1.174562912	2.264246828
RP11-15A1.8	5.67E-07	0.999999433	1.213273037	2.31909132
RP11-15A1.9	5.66E-07	0.999999434	0.766243026	1.702494737
RP11-15E18.5	5.58E-07	0.999999442	-0.993077109	0.502226527
RP11-15F12.6	5.54E-07	0.999999446	-1.571016833	0.336342676
RP11-15H20.6	5.43E-07	0.999999457	-0.83323035	0.561124716
RP11-15M15.1	5.43E-07	0.999999457	-1.215810009	0.427675599
RP11-15M15.2	5.42E-07	0.999999458	1.256719877	2.390274593
RP11-164J13.1	5.41E-07	0.999999459	0.860095585	1.821194896
RP11-164N3.3	5.41E-07	0.999999459	0.728344025	1.658234486
RP11-164P12.3	5.39E-07	0.999999461	1.640330812	3.117903363
RP11-166D19.1	5.37E-07	0.999999463	1.363930252	2.574017734
RP11-166O4.6	5.32E-07	0.999999468	-1.016091018	0.493420686
RP11-16E23.4	5.27E-07	0.999999473	1.02441294	2.03625655
RP11-16P6.1	5.26E-07	0.999999474	-2.987901369	0.125534712
RP11-174G6.1	5.26E-07	0.999999474	0.83277257	1.78210065
RP11-174G6.5	5.20E-07	0.99999948	-0.598343024	0.66000372
RP11-174O3.3	5.19E-07	0.999999481	0.672258405	1.593602487
RP11-177G23.1	5.16E-07	0.999999484	-1.411987312	0.37500221
RP11-177H13.2	5.15E-07	0.999999485	-1.251425622	0.415686614
RP11-17A4.2	5.14E-07	0.999999486	-1.198245302	0.435704738
RP11-181E10.3	5.12E-07	0.999999488	-1.54900683	0.340896096

RP11-182J1.14	5.10E-07	0.99999949	-1.788237408	0.289153874
RP11-188P20.3	4.99E-07	0.999999501	0.707982063	1.636541541
RP11-190A12.8	4.98E-07	0.999999502	-2.981201782	0.125199274
RP11-197K3.1	4.96E-07	0.999999504	-1.113050214	0.46212671
RP11-201E8.1	4.93E-07	0.999999507	-1.323593265	0.398015013
RP11-203H19.2	4.92E-07	0.999999508	0.580851783	1.496450871
RP11-204C16.4	4.86E-07	0.999999514	1.119550137	2.173003134
RP11-20I20.4	4.81E-07	0.999999519	-2.611043108	0.155576154
RP11-210M15.2	4.77E-07	0.999999523	-2.249296073	0.196843662
RP11-211A18.2	4.76E-07	0.999999524	1.637174741	3.146811484
RP11-211G23.2	4.70E-07	0.99999953	0.75712882	1.691346252
RP11-212I21.1	4.69E-07	0.999999531	-1.841547868	0.278432486
RP11-214K3.18	4.65E-07	0.999999535	1.214589847	2.321379696
RP11-214K3.20	4.64E-07	0.999999536	1.361879084	2.570481695
RP11-214K3.21	4.63E-07	0.999999537	2.017654497	4.296594377
RP11-214O1.3	4.63E-07	0.999999537	-2.019197985	0.243264517
RP11-215P8.2	4.62E-07	0.999999538	1.130662554	2.189642342
RP11-219B4.5	4.61E-07	0.999999539	1.416569308	2.669660807
RP11-219B4.6	4.57E-07	0.999999543	-0.874878413	0.545256928
RP11-227G15.11	4.55E-07	0.999999545	1.185324865	2.274437527
RP11-229O3.1	4.39E-07	0.999999561	0.697802398	1.622069192
RP11-22A3.1	4.38E-07	0.999999562	-2.48144045	0.177497655
RP11-22A3.2	4.37E-07	0.999999563	-0.71994853	0.606104783
RP11-22B23.1	4.36E-07	0.999999564	1.406754632	2.656723127
RP1-122P22.2	4.33E-07	0.999999567	-3.430513099	0.092627066
RP11-230B22.1	4.22E-07	0.999999578	-1.825521331	0.278444314
RP11-230F18.5	4.17E-07	0.999999583	0.822385281	1.768757885
RP11-234A1.1	4.16E-07	0.999999584	-3.487740516	0.066759191
RP11-234K24.3	4.13E-07	0.999999587	1.180261528	2.266222588
RP11-234K24.6	4.05E-07	0.999999595	1.100689486	2.144681368
RP11-23D24.2	4.04E-07	0.999999596	1.251911028	2.38806495
RP11-243J16.7	4.03E-07	0.999999597	-1.011643672	0.495484057
RP11-244F12.3	4.03E-07	0.999999597	1.262025568	2.40049303
RP11-244H3.1	4.00E-07	0.9999996	-2.0656041	0.224931917
RP11-244M2.1	3.98E-07	0.999999602	-0.686132481	0.621438482
RP11-246E12.2	3.97E-07	0.999999603	-1.991826802	0.243166354
RP11-248J23.6	3.92E-07	0.999999608	0.704319472	1.631409784
RP11-253E3.3	3.86E-07	0.999999614	-1.460516849	0.362502135
RP11-254F7.4	3.86E-07	0.999999614	1.599857172	3.043973454
RP11-255H23.2	3.84E-07	0.999999616	1.092832275	2.133309612
RP11-255H23.5	3.80E-07	0.99999962	1.080062568	2.115616229
RP11-259N19.1	3.79E-07	0.999999621	1.279281599	2.428129889
RP11-259O2.1	3.79E-07	0.999999621	-1.852656357	0.265794624
RP11-259O2.2	3.78E-07	0.999999622	0.876451555	1.839949676
RP11-259O2.3	3.69E-07	0.999999631	-1.780910472	0.290763016
RP11-25D3.1	3.64E-07	0.999999636	-0.787713844	0.579178311
RP11-264I13.2	3.64E-07	0.999999636	-2.239635254	0.211454305
RP11-266K4.13	3.59E-07	0.999999641	-0.927139383	0.525087223
RP11-266K4.14	3.56E-07	0.999999644	-0.994069389	0.500945902
RP11-266L9.5	3.55E-07	0.999999645	1.344667843	2.539807756
RP11-269F20.1	3.53E-07	0.999999647	1.396854591	2.646730011
RP11-272D12.2	3.45E-07	0.999999655	-0.905937044	0.533108087
RP11-274J7.3	3.42E-07	0.999999658	-1.593711067	0.330917907
RP11-276H19.1	3.38E-07	0.999999662	1.239185622	2.36202384
RP11-277P12.20	3.27E-07	0.999999673	0.999005061	1.999044229
RP1-127D3.4	3.27E-07	0.999999673	-0.92866529	0.524900648
RP11-282K24.3	3.24E-07	0.999999676	-3.413939023	0.093160075
RP11-282O18.3	3.24E-07	0.999999676	-2.487394312	0.175608647
RP11-283G6.4	3.23E-07	0.999999677	-3.023321277	0.120547629
RP11-283I3.6	3.19E-07	0.999999681	0.521366861	1.435428581
RP11-285A1.1	3.19E-07	0.999999681	-3.077428191	0.112641034
RP11-285F7.2	3.16E-07	0.999999684	0.663339968	1.584329665
RP11-285J16.1	3.15E-07	0.999999685	2.712180767	6.781791413
RP11-286B14.1	3.13E-07	0.999999687	-2.179205933	0.214584533
RP11-286B14.2	3.10E-07	0.99999969	-0.957865928	0.514423734
RP11-286N22.16	3.07E-07	0.999999693	-2.358295769	0.194397797
RP11-287J9.1	3.03E-07	0.999999697	1.919733175	3.871217053
RP11-288C18.1	3.01E-07	0.999999699	-2.29944104	0.191116498
RP11-288L9.4	2.97E-07	0.999999703	-1.609619287	0.320128964
RP11-290O12.2	2.95E-07	0.999999705	-1.117201098	0.457762831
RP11-292E2.1	2.94E-07	0.999999706	-1.533955891	0.341357925
RP11-292F22.7	2.90E-07	0.99999971	-1.669457622	0.313950717
RP11-295G20.2	2.87E-07	0.999999713	0.537629338	1.451842498
RP11-295K2.3	2.85E-07	0.999999715	0.72283207	1.652296581
RP11-295P9.3	2.84E-07	0.999999716	-1.524476698	0.346704289
RP11-298C2.1	2.84E-07	0.999999716	-1.288812146	0.408544773
RP11-298I3.3	2.78E-07	0.999999722	-2.094397891	0.229686294
RP11-299M14.2	2.78E-07	0.999999722	1.609154561	3.051984391
RP11-29G8.3	2.78E-07	0.999999722	-3.388838517	0.093352166
RP11-29H23.5	2.74E-07	0.999999726	-1.112645339	0.46180058
RP11-2C24.9	2.74E-07	0.999999726	-1.435091696	0.367914424
RP11-304C12.5	2.73E-07	0.999999727	1.578066669	2.996263383
RP11-305L7.7	2.70E-07	0.99999973	1.537450816	2.902936607
RP11-305O6.3	2.66E-07	0.999999734	1.128910037	2.187189614
RP11-310H4.6	2.64E-07	0.999999736	-2.614056498	0.163268044
RP11-310I24.1	2.63E-07	0.999999737	-0.682221184	0.62262926
RP11-311B14.1	2.59E-07	0.999999741	-0.762203204	0.588998513
RP11-317B17.4	2.59E-07	0.999999741	0.673825817	1.595550729
RP11-318C2.1	2.58E-07	0.999999742	1.269701675	2.417501091
RP11-319G9.3	2.58E-07	0.999999742	-2.53918435	0.161652917
RP11-321G12.1	2.56E-07	0.999999744	0.970559543	1.962305359
RP11-323C15.2	2.52E-07	0.999999748	1.894656189	3.731000715
RP11-323F24.4	2.51E-07	0.999999749	-3.225130989	0.081595809

RP11-327O17.2	2.51E-07	0.999999749	-2.34639754	0.194482945
RP11-329N15.3	2.50E-07	0.99999975	-1.123363356	0.458748428
RP11-32B5.1	2.49E-07	0.999999751	1.736006836	3.335768864
RP11-332H14.2	2.49E-07	0.999999751	1.416310512	2.669431476
RP11-333E1.1	2.47E-07	0.999999753	-1.283088311	0.410525286
RP11-334C17.6	2.46E-07	0.999999754	1.214551509	2.321761387
RP11-336K24.12	2.44E-07	0.999999756	0.883389747	1.844769751
RP11-337C18.8	2.44E-07	0.999999756	0.740766174	1.671512614
RP11-337C18.9	2.43E-07	0.999999757	1.065548311	2.094077137
RP11-344N10.4	2.40E-07	0.99999976	1.798131888	3.551080454
RP11-346E8.1	2.36E-07	0.999999764	1.002387831	2.007900738
RP11-347D21.1	2.35E-07	0.999999765	1.728797749	3.320061249
RP11-347P5.1	2.34E-07	0.999999766	0.801697901	1.743621734
RP11-349F21.2	2.34E-07	0.999999766	1.267775191	2.43300618
RP11-34A14.3	2.33E-07	0.999999767	2.075676029	4.287889234
RP11-350G24.2	2.32E-07	0.999999768	-3.490459278	0.080776416
RP11-351I21.6	2.31E-07	0.999999769	-0.712909012	0.609909321
RP11-351I21.7	2.25E-07	0.999999775	-2.316174266	0.200282516
RP11-351J23.1	2.19E-07	0.999999781	-5.0948182	0.028828266
RP11-351O1.4	2.17E-07	0.999999783	0.926334587	1.901070265
RP11-352M15.2	2.17E-07	0.999999783	-1.802279377	0.284838486
RP11-355F16.1	2.15E-07	0.999999785	1.51158366	2.851653556
RP11-356J5.12	2.13E-07	0.999999787	-1.309185235	0.401162108
RP11-357N13.3	2.13E-07	0.999999787	-3.422514837	0.082257069
RP11-357N13.6	2.12E-07	0.999999788	-1.55997039	0.336927073
RP11-358D17.2	2.09E-07	0.999999791	-2.168335455	0.219771533
RP11-35G22.1	2.09E-07	0.999999791	1.078277475	2.111548719
RP11-35J10.4	2.06E-07	0.999999794	1.28212949	2.435753073
RP11-35J10.6	2.04E-07	0.999999796	1.117517582	2.170030765
RP11-35J10.7	2.04E-07	0.999999796	0.871100223	1.829174298
RP11-35L17.3	2.03E-07	0.999999797	-0.711880002	0.61020661
RP11-360F5.1	2.01E-07	0.999999799	1.021807619	2.030570079
RP11-364P22.1	1.98E-07	0.999999802	1.140528165	2.2056721
RP11-365D23.4	1.98E-07	0.999999802	0.925671287	1.899766086
RP11-371A22.1	1.98E-07	0.999999802	-4.743538646	0.021062256
RP11-371I20.2	1.98E-07	0.999999802	-2.049208013	0.231137986
RP11-376O6.2	1.95E-07	0.999999805	-1.202956793	0.433378865
RP11-376P6.3	1.94E-07	0.999999806	-0.842581855	0.55745823
RP11-378G13.2	1.93E-07	0.999999807	-2.437900626	0.171394447
RP11-379B18.5	1.93E-07	0.999999807	-0.91778243	0.527177291
RP11-37B2.1	1.91E-07	0.999999809	-0.918860554	0.527834138
RP11-382A20.4	1.81E-07	0.999999819	0.548156777	1.462693593
RP11-383G10.5	1.81E-07	0.999999819	-0.821941043	0.564741781
RP11-392B6.1	1.80E-07	0.99999982	-2.623543409	0.161980317
RP11-392O17.2	1.80E-07	0.99999982	1.087817423	2.125593879
RP11-395I14.2	1.76E-07	0.999999824	-2.188564398	0.2064729
RP11-395I6.3	1.74E-07	0.999999826	-3.74429662	0.069849367
RP11-396C23.2	1.73E-07	0.999999827	0.60471976	1.520767136
RP11-396C23.4	1.70E-07	0.99999983	-1.750071644	0.294202755
RP11-3B7.1	1.69E-07	0.999999831	0.883011174	1.844380571
RP11-400K9.4	1.69E-07	0.999999831	-2.036746689	0.238449623
RP11-403I13.5	1.67E-07	0.999999833	-3.078188278	0.105079295
RP11-403I13.7	1.67E-07	0.999999833	-2.573323111	0.167351355
RP11-405L18.4	1.66E-07	0.999999834	0.971732772	1.96220324
RP11-407N8.6	1.65E-07	0.999999835	0.601986506	1.519440193
RP11-408P14.1	1.65E-07	0.999999835	0.847361135	1.799612366
RP11-411K7.1	1.63E-07	0.999999837	0.971159177	1.961632015
RP11-415J8.3	1.63E-07	0.999999837	1.185972457	2.277499565
RP11-417L19.6	1.61E-07	0.999999839	0.783714595	1.721718915
RP11-420A23.1	1.61E-07	0.999999839	-1.379670374	0.382649356
RP11-423H2.1	1.59E-07	0.999999841	-2.717582525	0.151528519
RP11-423O2.1	1.58E-07	0.999999842	1.758282403	3.425008507
RP11-425L10.1	1.58E-07	0.999999842	-1.996870401	0.242565788
RP11-427M20.1	1.57E-07	0.999999843	-2.877356869	0.135740311
RP11-429P3.8	1.56E-07	0.999999844	1.063667178	2.096037411
RP11-432I13.6	1.55E-07	0.999999845	1.1835403	2.271858973
RP11-434B12.1	1.54E-07	0.999999846	-3.058419085	0.109528395
RP11-434D9.1	1.54E-07	0.999999846	-1.592363865	0.330713793
RP11-436H11.5	1.54E-07	0.999999846	1.315336798	2.489083647
RP11-439E19.10	1.52E-07	0.999999848	0.772334391	1.708992552
RP11-43D2.2	1.50E-07	0.99999985	1.860680346	3.663109391
RP11-43D4.3	1.47E-07	0.999999853	1.195169775	2.291930069
RP11-440L14.4	1.46E-07	0.999999854	1.688534532	3.234756405
RP11-441M10.1	1.46E-07	0.999999854	-1.420395687	0.371544467
RP11-441O15.3	1.44E-07	0.999999856	1.665479934	3.19115216
RP11-445N18.5	1.44E-07	0.999999856	1.227404803	2.343893623
RP11-445N18.7	1.43E-07	0.999999857	-1.689612791	0.306444041
RP11-445P17.8	1.42E-07	0.999999858	-4.118941965	0.048149671
RP11-446H18.5	1.40E-07	0.99999986	1.908213188	3.758401757
RP11-448G15.3	1.40E-07	0.99999986	-1.718561528	0.301444752
RP11-448G4.4	1.38E-07	0.999999862	-2.380319168	0.191669454
RP11-449H3.1	1.37E-07	0.999999863	-0.665581725	0.630268044
RP11-44F14.10	1.37E-07	0.999999863	1.038287059	2.057913218
RP11-44F14.2	1.35E-07	0.999999865	-2.341709553	0.190395722
RP11-44F14.8	1.34E-07	0.999999866	-1.654456273	0.311303903
RP11-44F14.9	1.34E-07	0.999999866	-0.846626783	0.555993345
RP11-44F21.5	1.33E-07	0.999999867	0.642762264	1.561593846
RP11-44I10.3	1.33E-07	0.999999867	-2.023845363	0.245644644
RP11-44N21.1	1.33E-07	0.999999867	1.10878038	2.158218611
RP11-451F14.1	1.33E-07	0.999999867	0.852946873	1.80653927
RP11-452F19.3	1.28E-07	0.999999872	-1.978750702	0.250153982
RP11-452G18.2	1.25E-07	0.999999875	1.197846841	2.294962951
RP11-454F8.2	1.24E-07	0.999999876	-0.858713146	0.551205583

RP11-457M11.7	1.24E-07	0.999999876	-1.981184333	0.244260522
RP11-45A17.4	1.23E-07	0.999999877	0.86173242	1.817554514
RP11-463O12.5	1.23E-07	0.999999877	-1.491189246	0.3541795
RP11-467H10.2	1.22E-07	0.999999878	0.963194075	1.950143682
RP11-468E2.11	1.21E-07	0.999999879	1.004342971	2.016717444
RP11-469J4.3	1.20E-07	0.99999988	-3.776910981	0.071471551
RP11-46D6.1	1.20E-07	0.99999988	-2.178919416	0.211534263
RP11-46H11.3	1.20E-07	0.99999988	1.166069435	2.248639989
RP11-470B22.1	1.19E-07	0.999999881	1.362806803	2.572429235
RP11-475C16.1	1.17E-07	0.999999883	0.705415403	1.63326283
RP11-475O6.1	1.16E-07	0.999999884	1.242467059	2.387527494
RP11-477H21.2	1.16E-07	0.999999884	2.106399244	4.354235514
RP11-477J21.2	1.15E-07	0.999999885	-0.671740172	0.627011235
RP11-477N3.1	1.15E-07	0.999999885	0.69187032	1.617662345
RP11-483L5.1	1.15E-07	0.999999885	-0.711570014	0.609717473
RP11-486B10.4	1.13E-07	0.999999887	-2.00785811	0.246391994
RP11-489G11.3	1.13E-07	0.999999887	-0.905107478	0.53396409
RP11-489M13.1	1.11E-07	0.999999889	-1.339139878	0.394335907
RP11-48G14.1	1.11E-07	0.999999889	-4.129833542	0.049791243
RP11-48G14.3	1.09E-07	0.999999891	-2.132976904	0.227958982
RP11-493E12.2	1.07E-07	0.999999893	-4.523749429	0.025864399
RP11-494M8.4	1.06E-07	0.999999894	1.647662202	3.143995653
RP11-495P10.1	1.06E-07	0.999999894	1.237053675	2.364098337
RP11-498C9.15	1.06E-07	0.999999894	0.95389104	1.937774374
RP11-49C9.2	1.05E-07	0.999999895	-2.843424688	0.13450454
RP11-49O14.2	1.04E-07	0.999999896	1.481445475	2.794742121
RP11-49O14.3	1.04E-07	0.999999896	1.112474048	2.162445912
RP11-506O24.1	1.03E-07	0.999999897	1.141347021	2.206826677
RP11-507K2.2	1.03E-07	0.999999897	-1.808645729	0.284534868
RP11-508M8.1	1.03E-07	0.999999897	0.586011491	1.502168366
RP11-513G19.1	1.02E-07	0.999999898	-0.973658751	0.509069285
RP11-517I3.1	1.01E-07	0.999999899	1.262909013	2.407151657
RP11-517I3.2	1.01E-07	0.999999899	-1.64003494	0.320194415
RP11-520H14.7	9.96E-08	0.9999999	-3.199316644	0.108009337
RP11-521B24.5	9.90E-08	0.999999901	-1.730589323	0.301201248
RP11-522M21.2	9.69E-08	0.999999903	1.314550592	2.507025021
RP11-522M21.3	9.45E-08	0.999999905	-1.231142102	0.424396508
RP11-523H24.3	9.44E-08	0.999999906	1.297926019	2.473251684
RP11-525G13.2	9.35E-08	0.999999907	0.965627273	1.953500863
RP11-526D8.11	9.24E-08	0.999999908	2.352401573	5.120822717
RP11-526F3.1	9.23E-08	0.999999908	1.06827375	2.097289239
RP11-530N7.3	9.22E-08	0.999999908	-1.426682252	0.371815376
RP11-531A24.5	8.85E-08	0.999999912	-2.754790357	0.1473071
RP11-532M24.1	8.56E-08	0.999999914	-1.021878515	0.492351621
RP11-535A19.2	8.53E-08	0.999999915	1.476367486	2.788073474
RP11-53B2.1	8.50E-08	0.999999915	1.35017556	2.555903985
RP11-53B2.2	8.45E-08	0.999999915	-2.580434377	0.163744207
RP11-53B2.3	8.44E-08	0.999999916	-1.414184541	0.37458445
RP11-53B2.4	8.42E-08	0.999999916	0.847029663	1.799180555
RP11-53B2.5	8.19E-08	0.999999918	-0.826827666	0.563289224
RP11-53B2.6	8.14E-08	0.999999919	1.664545404	3.175930566
RP11-53M11.3	7.96E-08	0.99999992	1.354755599	2.561374667
RP11-545A16.1	7.94E-08	0.999999921	-2.440216607	0.182980746
RP11-545I5.3	7.94E-08	0.999999921	1.468304437	2.77943946
RP11-546J1.1	7.86E-08	0.999999921	-3.917872125	0.057509625
RP11-549L6.2	7.83E-08	0.999999922	1.687100307	3.224224039
RP11-54H7.4	7.82E-08	0.999999922	-2.703263009	0.152284354
RP11-54I5.1	7.80E-08	0.999999922	-4.588322892	0.040284408
RP11-54O15.3	7.68E-08	0.999999923	-0.642072996	0.640416423
RP11-550I24.2	7.54E-08	0.999999925	-5.594576834	0.014819493
RP11-551L14.4	7.54E-08	0.999999925	1.471791136	2.775219604
RP11-552M6.1	7.47E-08	0.999999925	0.669101544	1.591486859
RP11-553L6.5	7.47E-08	0.999999925	0.64419686	1.563118232
RP11-557H15.4	7.38E-08	0.999999926	1.419608354	2.68112455
RP11-55K13.1	7.36E-08	0.999999926	-0.521203832	0.696630989
RP11-56A10.1	7.34E-08	0.999999927	-0.579606388	0.668944403
RP11-56H7.2	7.31E-08	0.999999927	-2.433454751	0.184694504
RP11-573D15.9	7.31E-08	0.999999927	-0.570414021	0.673029484
RP11-573N10.1	7.21E-08	0.999999928	1.5253548	2.878788448
RP11-575A19.2	7.03E-08	0.99999993	-1.485164653	0.353075097
RP11-575G13.2	6.98E-08	0.99999993	-2.620725137	0.16127685
RP11-577H5.1	6.89E-08	0.999999931	-1.885205013	0.25970154
RP11-578B16.1	6.85E-08	0.999999931	0.624861384	1.543134023
RP11-578O24.2	6.81E-08	0.999999932	-2.177509114	0.214054383
RP11-57A1.1	6.76E-08	0.999999932	1.202008679	2.301114903
RP11-57H12.5	6.69E-08	0.999999933	-0.819927933	0.566125339
RP11-57H14.4	6.61E-08	0.999999934	-2.029192326	0.244840178
RP11-582J16.4	6.46E-08	0.999999935	-1.345671908	0.390149622
RP11-583F2.1	6.31E-08	0.999999937	0.57266997	1.487924284
RP11-583F2.2	6.17E-08	0.999999938	-2.49797439	0.175437904
RP11-588K22.2	6.17E-08	0.999999938	1.938669045	3.852984251
RP11-589M4.4	6.16E-08	0.999999938	1.343327657	2.542297267
RP11-600F24.7	6.10E-08	0.999999939	1.470283561	2.811780004
RP11-60L3.1	6.10E-08	0.999999939	-2.240007055	0.210658939
RP11-612B6.2	6.07E-08	0.999999939	1.355470838	2.55888468
RP11-612J15.1	6.05E-08	0.999999939	1.465855659	2.765061982
RP11-613M10.6	5.96E-08	0.99999994	-1.897089459	0.265984798
RP11-619A14.3	5.85E-08	0.999999942	-3.003643895	0.12411101
RP11-61F12.1	5.83E-08	0.999999942	-1.243277363	0.421800385
RP11-621L6.2	5.78E-08	0.999999942	-2.313752499	0.192446889
RP11-622C24.2	5.69E-08	0.999999943	-0.967307661	0.509238208
RP11-629O1.2	5.54E-08	0.999999945	0.784435078	1.723970786
RP11-62I21.1	5.52E-08	0.999999945	0.641757716	1.561399081

RP11-630A13.4	5.17E-08	0.999999948	-1.478325021	0.358351565
RP11-631N16.2	5.13E-08	0.999999949	3.049788163	8.754422413
RP11-632F7.3	5.08E-08	0.999999949	-1.98323168	0.247214376
RP11-63G10.2	5.07E-08	0.999999949	0.940130189	1.9198005
RP11-63G10.3	5.07E-08	0.999999949	-2.899752438	0.114452413
RP11-640M9.2	5.01E-08	0.99999995	-5.426308159	0.015554295
RP11-650J17.2	4.98E-08	0.99999995	-1.021699701	0.492221714
RP11-650L12.2	4.97E-08	0.99999995	0.732367828	1.661898264
RP11-65E22.2	4.91E-08	0.999999951	0.828766687	1.777271612
RP11-65L3.2	4.80E-08	0.999999952	-1.019511973	0.493247927
RP11-65L3.3	4.76E-08	0.999999952	1.623286821	3.08949385
RP11-660L16.2	4.70E-08	0.999999953	-1.129070007	0.457045055
RP11-661A12.8	4.69E-08	0.999999953	-2.113292848	0.224060944
RP11-665G4.1	4.67E-08	0.999999953	1.437776747	2.709393894
RP11-666F17.1	4.66E-08	0.999999953	1.375213247	2.60099819
RP11-666F17.2	4.65E-08	0.999999953	0.584317916	1.499780439
RP11-676J12.7	4.64E-08	0.999999954	-1.836792677	0.276086047
RP11-676J12.9	4.61E-08	0.999999954	-1.356106746	0.388558024
RP11-677M14.7	4.61E-08	0.999999954	-2.775230453	0.143759859
RP11-679B19.1	4.54E-08	0.999999955	0.911540764	1.882618992
RP1-167F1.2	4.54E-08	0.999999955	-1.573235413	0.332159563
RP11-67L2.2	4.48E-08	0.999999955	1.028767821	2.045269799
RP11-685M7.3	4.44E-08	0.999999956	2.028101521	4.080150831
RP11-686D22.8	4.42E-08	0.999999956	-2.43170897	0.18052893
RP11-687M24.8	4.39E-08	0.999999956	-3.369922986	0.096286876
RP11-689K5.3	4.36E-08	0.999999956	0.979660295	1.972448256
RP11-68L18.1	4.35E-08	0.999999957	-1.323056373	0.398464202
RP11-690D19.3	4.33E-08	0.999999957	-1.498338337	0.352314835
RP11-691H4.3	4.31E-08	0.999999957	2.393298614	5.544145551
RP11-691H4.4	4.28E-08	0.999999957	0.794234823	1.734228039
RP11-692D12.1	4.21E-08	0.999999958	-3.717975479	0.075068389
RP11-693M3.1	4.18E-08	0.999999958	-1.659095357	0.315873333
RP11-693N9.2	4.11E-08	0.999999959	1.237208605	2.357890864
RP11-696N14.1	4.07E-08	0.999999959	1.920836295	3.795184239
RP11-6N17.4	4.07E-08	0.999999959	-2.05234816	0.24104431
RP11-6O2.3	4.00E-08	0.99999996	-2.165361384	0.213991784
RP11-701H16.4	3.99E-08	0.99999996	-2.598429457	0.150618005
RP11-701H24.4	3.98E-08	0.99999996	1.738528422	3.338154943
RP11-705C15.3	3.97E-08	0.99999996	1.8266261	3.56264799
RP11-707M3.3	3.95E-08	0.99999996	1.7081189	3.2740289
RP11-709A23.1	3.87E-08	0.999999961	-1.054556539	0.48079398
RP11-712B9.1	3.76E-08	0.999999962	-0.849245123	0.554825895
RP11-712B9.6	3.69E-08	0.999999963	-3.732310548	0.051229158
RP11-712P20.2	3.65E-08	0.999999963	-2.428671725	0.185697131
RP11-715J22.6	3.65E-08	0.999999964	0.855771107	1.810581946
RP11-71H17.8	3.62E-08	0.999999964	1.144732373	2.220767545
RP11-726G1.1	3.59E-08	0.999999964	-0.721145044	0.606604284
RP11-72K17.2	3.59E-08	0.999999964	1.94066775	3.841289953
RP11-730A19.5	3.54E-08	0.999999965	-2.711707434	0.152411361
RP11-734K2.4	3.49E-08	0.999999965	-2.827931379	0.138113416
RP11-736K20.4	3.39E-08	0.999999966	1.131845377	2.202870672
RP11-736K20.5	3.32E-08	0.999999967	0.552818822	1.467604722
RP11-739L10.1	3.30E-08	0.999999967	-2.209738024	0.216007352
RP11-73M14.1	3.27E-08	0.999999967	1.206818038	2.315590925
RP11-73M18.6	3.26E-08	0.999999967	2.0717507	4.285280093
RP11-73M18.8	3.14E-08	0.999999969	-3.055339389	0.104704725
RP11-73M7.6	3.11E-08	0.999999969	-1.70455435	0.299741554
RP11-744O11.2	3.11E-08	0.999999969	-0.853024022	0.552927413
RP11-745A24.1	3.10E-08	0.999999969	-2.480294569	0.17893846
RP11-746P2.3	3.00E-08	0.99999997	0.776534135	1.713440344
RP11-756H20.1	2.99E-08	0.99999997	1.086476395	2.124025145
RP11-756J15.2	2.98E-08	0.99999997	0.750657593	1.683122102
RP11-757F18.5	2.95E-08	0.999999971	-0.648067862	0.637745265
RP11-757G1.6	2.95E-08	0.999999971	-3.26024547	0.097897108
RP11-759A24.1	2.94E-08	0.999999971	1.114639898	2.167732898
RP11-774O3.3	2.93E-08	0.999999971	-2.118700809	0.224338069
RP11-778J15.1	2.89E-08	0.999999971	-2.501434465	0.168823032
RP11-782C8.2	2.89E-08	0.999999971	1.025112003	2.036566717
RP11-782C8.5	2.82E-08	0.999999972	0.817650104	1.763276004
RP11-792A8.3	2.80E-08	0.999999972	-4.160294057	0.054429391
RP11-793H13.12	2.80E-08	0.999999972	-1.043968235	0.484942897
RP11-797H7.1	2.79E-08	0.999999972	0.655994419	1.575957777
RP11-79M19.2	2.78E-08	0.999999972	0.776936136	1.716272301
RP11-79N23.1	2.74E-08	0.999999973	0.93663227	1.918217411
RP11-7K24.3	2.71E-08	0.999999973	-3.035829383	0.121775581
RP11-801G16.2	2.65E-08	0.999999974	-1.416533546	0.37071204
RP11-80I15.1	2.62E-08	0.999999974	-2.102856469	0.232543727
RP11-80I15.4	2.62E-08	0.999999974	1.059419244	2.09286164
RP11-810K23.10	2.62E-08	0.999999974	0.706994987	1.633309198
RP11-815J21.4	2.60E-08	0.999999974	1.764543435	3.399208737
RP11-817J15.2	2.60E-08	0.999999974	0.780340991	1.718502619
RP11-817J15.3	2.59E-08	0.999999974	-2.068715465	0.231911133
RP11-819C21.1	2.56E-08	0.999999974	-2.844568405	0.139072026
RP11-81A1.4	2.53E-08	0.999999975	2.047626526	4.252535439
RP11-81A1.6	2.52E-08	0.999999975	-0.539346267	0.688019625
RP11-826F13.1	2.50E-08	0.999999975	1.446788843	2.732324425
RP11-832A4.7	2.49E-08	0.999999975	-1.161707286	0.446566378
RP11-83A24.2	2.45E-08	0.999999975	1.201964416	2.301928891
RP11-849H4.4	2.44E-08	0.999999976	0.63392856	1.552179334
RP11-85B7.2	2.41E-08	0.999999976	-4.294908449	0.039068292
RP11-85I17.2	2.36E-08	0.999999976	-1.744903049	0.295794491
RP11-85K15.3	2.35E-08	0.999999976	-0.943537279	0.518043834
RP11-864N7.2	2.30E-08	0.999999977	1.378391733	2.618011337

RP11-887P2.5	2.30E-08	0.999999977	-2.027528545	0.243306367
RP11-89N17.1	2.30E-08	0.999999977	-3.44463643	0.079726892
RP11-89N17.2	2.24E-08	0.999999978	-2.703181471	0.152189618
RP11-89N17.4	2.20E-08	0.999999978	-1.640142481	0.317057427
RP11-90L20.2	2.19E-08	0.999999978	-3.963845867	0.060120163
RP11-90O23.1	2.19E-08	0.999999978	-1.712667126	0.304547465
RP11-932O9.10	2.19E-08	0.999999978	-2.252744172	0.201273321
RP11-933H2.4	2.16E-08	0.999999978	-1.056736869	0.47966418
RP11-967K21.1	2.14E-08	0.999999979	1.16992856	2.25429284
RP11-968O1.5	2.12E-08	0.999999979	1.619298704	3.121642798
RP11-96C23.13	2.11E-08	0.999999979	1.817405093	3.525123693
RP11-96K19.4	2.10E-08	0.999999979	1.165210166	2.24587377
RP11-972P1.7	2.10E-08	0.999999979	2.233573073	4.842725248
RP11-981G7.6	2.02E-08	0.99999998	-1.134926829	0.454317624
RP11-981P6.1	2.01E-08	0.99999998	-2.19758425	0.217832825
RP11-983P16.2	2.00E-08	0.99999998	-3.094583349	0.096609779
RP11-983P16.4	1.98E-08	0.99999998	-1.709403033	0.305510575
RP11-98G7.1	1.98E-08	0.99999998	-2.829313024	0.138696222
RP11-9H20.2	1.98E-08	0.99999998	0.807593709	1.750415992
RP11-9N12.2	1.91E-08	0.999999981	1.063232881	2.093438098
RP11-9N12.3	1.90E-08	0.999999981	-1.882685376	0.269666441
RP1-221C16.8	1.87E-08	0.999999981	-2.523551719	0.17214417
RP1-239B22.5	1.85E-08	0.999999981	-1.77710418	0.289781251
RP1-244F24.1	1.85E-08	0.999999982	1.219550121	2.329976289
RP1-257C22.2	1.81E-08	0.999999982	0.96684013	1.956450165
RP1-290F12.3	1.80E-08	0.999999982	-4.910867247	0.033159016
RP13-104F24.2	1.80E-08	0.999999982	-2.8083411	0.122179549
RP13-104F24.3	1.79E-08	0.999999982	1.913584069	3.80048876
RP13-188A5.1	1.78E-08	0.999999982	0.654100886	1.57400038
RP13-204A15.5	1.77E-08	0.999999982	-3.002729458	0.124258371
RP13-225O21.2	1.76E-08	0.999999982	1.746640097	3.359992402
RP13-297E16.4	1.76E-08	0.999999982	1.160970155	2.236807198
RP13-39P12.3	1.72E-08	0.999999983	-2.700180106	0.152660263
RP13-452N2.1	1.71E-08	0.999999983	1.033284069	2.049609403
RP13-476E20.1	1.71E-08	0.999999983	1.84507334	3.654642896
RP13-487K5.1	1.66E-08	0.999999983	1.232128601	2.351633099
RP13-514E23.1	1.65E-08	0.999999983	0.804083071	1.746406475
RP1-53O8.2	1.62E-08	0.999999984	1.846834312	3.613802999
RP1-56K13.2	1.62E-08	0.999999984	0.844821354	1.796326257
RP1-60N8.1	1.59E-08	0.999999984	-1.617673022	0.32054101
RP1-67A8.3	1.56E-08	0.999999984	1.341055992	2.539682845
RP1-80N2.4	1.55E-08	0.999999985	-1.772197354	0.284317397
RP1-99E18.2	1.55E-08	0.999999985	-2.7335349	0.149284298
RP3-325F22.3	1.54E-08	0.999999985	-1.911987288	0.265001909
RP3-329A5.8	1.53E-08	0.999999985	-1.926936697	0.262572401
RP3-331H24.6	1.49E-08	0.999999985	-2.718932735	0.143684426
RP3-331H24.7	1.49E-08	0.999999985	1.351414186	2.553199174
RP3-363L9.1	1.48E-08	0.999999985	1.201272011	2.301212782
RP3-368A4.5	1.48E-08	0.999999985	-2.133976473	0.215115706
RP3-394A18.1	1.46E-08	0.999999985	-2.378953061	0.184506857
RP3-403A15.5	1.45E-08	0.999999986	1.265629073	2.41595243
RP3-405J10.3	1.43E-08	0.999999986	1.320251255	2.500857173
RP3-425C14.4	1.39E-08	0.999999986	1.687338837	3.227529087
RP3-428L16.2	1.39E-08	0.999999986	-2.536160448	0.171274697
RP3-439F8.1	1.38E-08	0.999999986	-3.027413107	0.120579345
RP3-449M8.9	1.37E-08	0.999999986	0.763663504	1.698855609
RP3-449O17.1	1.37E-08	0.999999986	-2.842877834	0.135685809
RP3-471C18.1	1.37E-08	0.999999986	-1.757133672	0.29551532
RP3-471C18.2	1.36E-08	0.999999986	-1.553624401	0.337754663
RP3-510L9.1	1.35E-08	0.999999987	1.142692618	2.208313091
RP4-584D14.5	1.33E-08	0.999999987	1.304471311	2.47778956
RP4-591N18.2	1.31E-08	0.999999987	1.15665148	2.231882543
RP4-597J3.1	1.29E-08	0.999999987	-4.125916453	0.043948106
RP4-614O4.13	1.27E-08	0.999999987	-1.604480184	0.323540176
RP4-625H18.2	1.23E-08	0.999999988	-2.407570202	0.187660922
RP4-635A23.6	1.21E-08	0.999999988	0.907927507	1.876890245
RP4-641G12.3	1.20E-08	0.999999988	0.961053063	1.951643835
RP4-647C14.2	1.18E-08	0.999999988	-0.643812354	0.639827571
RP4-669H2.1	1.17E-08	0.999999988	0.879243064	1.842051182
RP4-673D20.3	1.15E-08	0.999999988	0.62351025	1.541226226
RP4-673D20.6	1.15E-08	0.999999989	1.042138716	2.059347888
RP4-706A16.3	1.14E-08	0.999999989	1.180336134	2.269628485
RP4-714D9.5	1.13E-08	0.999999989	0.79499918	1.735685027
RP4-717I23.3	1.11E-08	0.999999989	-1.976208943	0.253753952
RP4-734G22.3	1.11E-08	0.999999989	-1.109510388	0.463150023
RP4-737E23.2	1.09E-08	0.999999989	-2.641039127	0.157342524
RP4-742J24.2	1.09E-08	0.999999989	0.923054084	1.899294508
RP4-758J18.13	1.08E-08	0.999999989	-0.845829361	0.555944776
RP4-777O23.2	1.08E-08	0.999999989	-1.992342161	0.247452432
RP4-784A16.3	1.07E-08	0.999999989	-3.068121322	0.101393236
RP4-784A16.4	1.05E-08	0.99999999	2.754370615	7.008640293
RP4-791M13.5	1.05E-08	0.99999999	-1.377433367	0.382229364
RP4-794H19.1	1.03E-08	0.99999999	0.692163823	1.616783806
RP4-798A10.2	1.03E-08	0.99999999	0.954851218	1.939635138
RP4-800G7.1	1.02E-08	0.99999999	1.005694622	2.015305407
RP5-1009N12.1	1.00E-08	0.99999999	-2.515915955	0.171252802
RP5-1027G4.3	9.99E-09	0.99999999	-1.552039914	0.336267374
RP5-1033H22.2	9.97E-09	0.99999999	1.14463178	2.223508864
RP5-1039K5.19	9.77E-09	0.99999999	-4.98022574	0.019217475
RP5-1071N3.1	9.77E-09	0.99999999	1.893802402	3.77023804
RP5-1086K13.1	9.70E-09	0.99999999	1.411528087	2.660366323
RP5-1092L12.2	9.66E-09	0.99999999	0.953133887	1.936565115
RP5-1101C3.1	9.61E-09	0.99999999	1.188749987	2.282620886

RP5-1107A17.4	9.56E-09	0.99999999	-1.93375487	0.25750688
RP5-1120P11.3	9.41E-09	0.999999991	-1.136623241	0.454705716
RP5-1139B12.2	9.30E-09	0.999999991	1.358638344	2.564505123
RP5-1139B12.4	9.29E-09	0.999999991	-2.976010434	0.113074292
RP5-1142A6.9	9.12E-09	0.999999991	-2.092444353	0.23427953
RP5-1158E12.3	8.95E-09	0.999999991	0.616809738	1.533826973
RP5-1159O4.2	8.89E-09	0.999999991	-1.704839791	0.306053596
RP5-1185I7.1	8.81E-09	0.999999991	1.467815549	2.767213881
RP5-832C2.5	8.81E-09	0.999999991	-2.870554184	0.12679614
RP5-836J3.1	8.66E-09	0.999999991	1.300627256	2.464077125
RP5-858L17.1	8.58E-09	0.999999991	-0.848536326	0.554834046
RP5-862P8.2	8.53E-09	0.999999991	-2.29529658	0.203102752
RP5-956O18.2	8.49E-09	0.999999992	1.483128939	2.825078123
RP5-999L4.2	8.47E-09	0.999999992	1.164784526	2.242612613
RP6-109B7.4	8.26E-09	0.999999992	1.978660947	4.0214187
RP6-206I17.4	8.20E-09	0.999999992	-1.258116569	0.417620375
RP6-74O6.6	8.20E-09	0.999999992	1.565581003	3.001481887
RPARP-AS1	8.14E-09	0.999999992	-0.923907388	0.526826812
RPF2	8.12E-09	0.999999992	1.475998077	2.783614921
RPIA	7.99E-09	0.999999992	0.733453542	1.66445398
RPL10	7.91E-09	0.999999992	1.272717225	2.42138562
RPL10A	7.75E-09	0.999999992	-2.029871228	0.239480823
RPL10AP6	7.61E-09	0.999999992	-4.763278366	0.0357549
RPL11	7.59E-09	0.999999992	0.707927216	1.633659862
RPL12	7.11E-09	0.999999993	2.506196487	5.892243004
RPL12P4	6.99E-09	0.999999993	1.033747294	2.048745101
RPL13	6.95E-09	0.999999993	0.701452663	1.626459003
RPL13A	6.90E-09	0.999999993	0.870204195	1.828346139
RPL13AP25	6.86E-09	0.999999993	1.960197149	3.941597733
RPL13P12	6.86E-09	0.999999993	-1.563413318	0.336879157
RPL14	6.78E-09	0.999999993	-1.114457625	0.459578967
RPL14P1	6.70E-09	0.999999993	1.073003848	2.106082113
RPL15	6.58E-09	0.999999993	1.012954535	2.019950271
RPL17	6.43E-09	0.999999994	-4.766027446	0.026896284
RPL18	6.39E-09	0.999999994	-3.017997097	0.108697212
RPL18A	6.34E-09	0.999999994	1.109568148	2.159492763
RPL19	6.33E-09	0.999999994	0.670268687	1.592332924
RPL21	6.25E-09	0.999999994	-3.638057049	0.069447156
RPL21P32	6.25E-09	0.999999994	0.809029663	1.752449827
RPL21P44	6.03E-09	0.999999994	1.088022002	2.137400389
RPL22	6.01E-09	0.999999994	1.221269467	2.333061232
RPL22L1	5.99E-09	0.999999994	0.791585103	1.732256869
RPL23	5.97E-09	0.999999994	-0.812556633	0.569269014
RPL23A	5.95E-09	0.999999994	-1.458508755	0.362843094
RPL23AP32	5.88E-09	0.999999994	0.975218663	1.972889474
RPL23AP7	5.81E-09	0.999999994	-1.414340579	0.372822693
RPL23AP82	5.67E-09	0.999999994	1.251506355	2.381859101
RPL24	5.61E-09	0.999999994	-2.647094568	0.159309181
RPL26	5.59E-09	0.999999994	-6.613588975	0.008811811
RPL26L1	5.58E-09	0.999999994	1.722938175	3.302924446
RPL27	5.56E-09	0.999999994	1.356989794	2.561783136
RPL27A	5.53E-09	0.999999994	-1.695017994	0.306675712
RPL28	5.49E-09	0.999999995	-2.130255902	0.225854301
RPL29	5.46E-09	0.999999995	2.259483795	4.827268447
RPL3	5.36E-09	0.999999995	1.661130495	3.177390568
RPL30	5.31E-09	0.999999995	-5.694773526	0.016454039
RPL31	5.30E-09	0.999999995	-1.838927148	0.27718838
RPL32	5.30E-09	0.999999995	-3.698233069	0.064116512
RPL34	5.23E-09	0.999999995	1.229283697	2.344617254
RPL35	5.22E-09	0.999999995	0.905497354	1.875347607
RPL35A	5.19E-09	0.999999995	1.368114566	2.591674311
RPL36	5.18E-09	0.999999995	1.339606475	2.532093577
RPL36A	5.16E-09	0.999999995	0.539771857	1.45411186
RPL36AL	5.12E-09	0.999999995	-3.421965528	0.082076529
RPL37	5.00E-09	0.999999995	-1.275787473	0.4124102
RPL37A	4.94E-09	0.999999995	-1.616111802	0.326135064
RPL37AP1	4.94E-09	0.999999995	-1.648742583	0.31610773
RPL38	4.90E-09	0.999999995	-4.017459108	0.048524963
RPL3P4	4.83E-09	0.999999995	-1.897705968	0.265834124
RPL4	4.82E-09	0.999999995	-2.343314229	0.188969565
RPL41	4.75E-09	0.999999995	1.037263709	2.053402289
RPL41P1	4.74E-09	0.999999995	2.227923501	4.764861609
RPL4P4	4.71E-09	0.999999995	-1.632688571	0.319187061
RPL4P5	4.65E-09	0.999999995	-3.889324303	0.065542007
RPL4P6	4.63E-09	0.999999995	1.106387216	2.161835522
RPL5	4.62E-09	0.999999995	-1.052472376	0.482049247
RPL6	4.55E-09	0.999999995	-1.710244375	0.30491889
RPL6P8	4.33E-09	0.999999996	0.818189111	1.764845289
RPL7	4.23E-09	0.999999996	1.377401911	2.59870262
RPL7A	3.99E-09	0.999999996	-2.487267943	0.169451708
RPL7AP30	3.90E-09	0.999999996	-3.847267748	0.067666612
RPL7AP6	3.75E-09	0.999999996	-2.37824959	0.190206175
RPL7L1	3.74E-09	0.999999996	1.117607578	2.17149242
RPL8	3.73E-09	0.999999996	-1.871268465	0.27042177
RPL9	3.72E-09	0.999999996	1.501517406	2.835169577
RPLP0	3.71E-09	0.999999996	-1.112993801	0.462200046
RPLP1	3.69E-09	0.999999996	-1.9809431	0.253024029
RPLP2	3.68E-09	0.999999996	-1.077317172	0.473423863
RPN1	3.68E-09	0.999999996	-6.086151801	0.008220829
RPP25	3.55E-09	0.999999996	0.555088954	1.469564737
RPP25L	3.54E-09	0.999999996	-0.679528229	0.624302907
RPP38	3.51E-09	0.999999996	1.598117755	3.062256471
RPP40	3.44E-09	0.999999997	2.260939892	4.795349896

RPS10	3.41E-09	0.999999997	0.824902775	1.771699207
RPS10P2	3.21E-09	0.999999997	-0.838059519	0.558629601
RPS11	3.11E-09	0.999999997	-1.522084821	0.345510194
RPS12	3.04E-09	0.999999997	1.957473929	3.88839915
RPS13	2.98E-09	0.999999997	-3.282353938	0.101871365
RPS14	2.95E-09	0.999999997	-1.057701588	0.479688887
RPS14P8	2.94E-09	0.999999997	-0.919316583	0.528394935
RPS15	2.92E-09	0.999999997	-2.295262204	0.203530874
RPS15A	2.92E-09	0.999999997	1.199617462	2.298006369
RPS18	2.87E-09	0.999999997	0.66286997	1.583481868
RPS18P12	2.87E-09	0.999999997	-2.834634649	0.129034386
RPS19	2.85E-09	0.999999997	1.129982401	2.190521129
RPS19BP1	2.83E-09	0.999999997	-1.794797132	0.282175183
RPS2	2.79E-09	0.999999997	-1.63548211	0.320855709
RPS20	2.77E-09	0.999999997	1.542790414	2.931658451
RPS20P22	2.74E-09	0.999999997	1.254136008	2.38578829
RPS21	2.63E-09	0.999999997	-0.517360149	0.698264539
RPS23	2.58E-09	0.999999997	-2.306283286	0.196511094
RPS24	2.58E-09	0.999999997	-0.860964017	0.549881827
RPS25	2.52E-09	0.999999997	-1.673192465	0.313097725
RPS26	2.51E-09	0.999999997	1.04855502	2.076602767
RPS27	2.43E-09	0.999999998	-2.942125972	0.127494207
RPS27A	2.40E-09	0.999999998	0.572255487	1.48695515
RPS28	2.38E-09	0.999999998	-0.896873	0.535956943
RPS28P7	2.36E-09	0.999999998	1.695407799	3.251754074
RPS29	2.34E-09	0.999999998	-0.719773674	0.607036313
RPS2P46	2.34E-09	0.999999998	0.552963129	1.467615889
RPS2P5	2.30E-09	0.999999998	2.691843107	7.132483488
RPS2P7	2.29E-09	0.999999998	1.97806062	3.979572906
RPS3	2.22E-09	0.999999998	0.638237207	1.557152167
RPS3A	2.20E-09	0.999999998	-3.860150411	0.061210082
RPS3AP29	2.19E-09	0.999999998	1.60521942	3.057462514
RPS4X	2.19E-09	0.999999998	3.423537125	11.31481899
RPS4XP5	2.19E-09	0.999999998	-3.715124437	0.075366653
RPS4XP6	2.09E-09	0.999999998	2.938659762	8.504864531
RPS5	2.09E-09	0.999999998	0.563603013	1.478498195
RPS6	2.09E-09	0.999999998	0.903024511	1.870328807
RPS6KA1	2.05E-09	0.999999998	-1.408100438	0.375112477
RPS6KL1	2.05E-09	0.999999998	-2.278682936	0.194343771
RPS7	1.98E-09	0.999999998	0.589346008	1.504750679
RPS7P1	1.97E-09	0.999999998	-0.936354032	0.522255175
RPS8	1.90E-09	0.999999998	0.828704382	1.77692323
RPS9	1.88E-09	0.999999998	1.259228948	2.416229941
RPSA	1.87E-09	0.999999998	1.418013966	2.677151897
RPSAP36	1.87E-09	0.999999998	1.112046686	2.162056748
RPSAP6	1.83E-09	0.999999998	0.697185935	1.621569193
RPUSD1	1.81E-09	0.999999998	0.763504702	1.69767214
RPUSD2	1.78E-09	0.999999998	2.033302413	4.193035054
RPUSD4	1.75E-09	0.999999998	1.556824173	2.946090418
RRAGB	1.75E-09	0.999999998	-2.742628278	0.148150999
RRAGD	1.74E-09	0.999999998	1.66030306	3.163291003
RRM2	1.72E-09	0.999999998	1.169644384	2.251541411
RRN3	1.70E-09	0.999999998	0.809764214	1.755284602
RRP1	1.69E-09	0.999999998	-2.735745568	0.146831375
RRP12	1.65E-09	0.999999998	1.123995148	2.179801891
RRP15	1.64E-09	0.999999998	0.784213982	1.72232132
RRP1B	1.58E-09	0.999999998	-2.755039757	0.141397851
RRP36	1.53E-09	0.999999998	-4.951755007	0.025723371
RRP7A	1.53E-09	0.999999998	0.710392922	1.638484741
RRP8	1.51E-09	0.999999998	-1.085224826	0.468968696
RRP9	1.49E-09	0.999999999	-0.657712988	0.633543866
RRS1	1.49E-09	0.999999999	-2.112216821	0.231189399
RSAD1	1.49E-09	0.999999999	-1.209240117	0.432049301
RSAD2	1.43E-09	0.999999999	1.110255984	2.159376299
RSL1D1	1.40E-09	0.999999999	2.108946826	4.324537929
RSL24D1	1.39E-09	0.999999999	-0.965599523	0.51181152
RSPH1	1.39E-09	0.999999999	-2.904179768	0.12938127
RSPH3	1.37E-09	0.999999999	1.233330739	2.35288667
RSRC1	1.35E-09	0.999999999	1.62738989	3.089799279
RSRP1	1.34E-09	0.999999999	0.608746412	1.525226058
RSU1P2	1.32E-09	0.999999999	-1.598486558	0.325438488
RTCB	1.31E-09	0.999999999	-2.030342605	0.244271621
RTN2	1.28E-09	0.999999999	-2.734316723	0.143574866
RTN4IP1	1.24E-09	0.999999999	1.26737797	2.40734141
RUNX1	1.23E-09	0.999999999	1.359244506	2.569360064
RUNX2	1.22E-09	0.999999999	1.822202106	3.541661002
RUVBL1	1.20E-09	0.999999999	0.857482714	1.812302627
RUVBL2	1.18E-09	0.999999999	-2.959394061	0.115602671
RWDD4	1.17E-09	0.999999999	1.338482052	2.530815669
RWDD4P2	1.16E-09	0.999999999	0.950618702	1.933293713
RYR1	1.15E-09	0.999999999	0.938102263	1.91690899
RYR2	1.12E-09	0.999999999	1.778636519	3.431246348
S100A10	1.10E-09	0.999999999	-3.611998733	0.076706848
S100A14	1.10E-09	0.999999999	0.764582143	1.699422298
S100B	1.09E-09	0.999999999	1.281161124	2.431143012
S1PR2	1.09E-09	0.999999999	1.038093002	2.060439712
S1PR3	1.03E-09	0.999999999	-1.376488413	0.384928898
SACS	1.03E-09	0.999999999	-0.613448632	0.653480508
SAE1	1.03E-09	0.999999999	-1.855292157	0.273824764
SALL2	1.01E-09	0.999999999	-2.019776955	0.246546071
SALL4	1.01E-09	0.999999999	-1.333051222	0.394063458
SAMD4A	9.88E-10	0.999999999	-1.236118036	0.422166865
SAMD9	9.80E-10	0.999999999	-4.055689931	0.052723467

SAMD9L	9.70E-10	0.999999999	-2.728875039	0.148701562
SAMM50	9.62E-10	0.999999999	-0.970682619	0.508421366
SAP30L	9.55E-10	0.999999999	1.588419603	3.013219923
SAP30L-AS1	9.50E-10	0.999999999	1.487379113	2.806482635
SAPCD2	9.42E-10	0.999999999	-2.647116504	0.15879262
SARS	9.41E-10	0.999999999	-0.922523441	0.527514724
SARS2	9.39E-10	0.999999999	-3.052023443	0.119469739
SASH1	9.17E-10	0.999999999	-3.472640162	0.086092927
SAT1	8.79E-10	0.999999999	-3.018316591	0.12265879
SAT2	8.76E-10	0.999999999	-0.698191419	0.615949392
SATB1	8.50E-10	0.999999999	-2.042892972	0.241919612
SBK1	8.41E-10	0.999999999	1.380881404	2.604576925
SCAND3P1	8.18E-10	0.999999999	-5.223172707	0.022335056
SCARB1	7.85E-10	0.999999999	1.622854162	3.088059504
SCARNA10	7.79E-10	0.999999999	-4.245501752	0.048003621
SCEL	7.79E-10	0.999999999	-1.402609997	0.375848145
SCEL-AS1	7.61E-10	0.999999999	3.662922022	14.65871203
SCFD2	7.58E-10	0.999999999	0.932043948	1.908652793
SCG2	7.52E-10	0.999999999	-3.17929847	0.106531214
SCGB1D2	7.46E-10	0.999999999	-1.170070161	0.441588247
SCGB3A2	7.45E-10	0.999999999	0.519173781	1.433203529
SCLY	7.18E-10	0.999999999	2.148594543	4.511008825
SCML1	7.05E-10	0.999999999	-1.02894115	0.488202131
SCN1A	6.94E-10	0.999999999	-5.689771996	0.018871748
SCN2B	6.90E-10	0.999999999	-1.197890342	0.43578638
SCN3A	6.83E-10	0.999999999	-1.344580459	0.393734097
SCN8A	6.70E-10	0.999999999	-4.057797479	0.056878664
SCO1	6.69E-10	0.999999999	-1.844048693	0.277968923
SCRG1	6.64E-10	0.999999999	-3.678252075	0.077031853
SCUBE2	6.62E-10	0.999999999	0.571373464	1.487051662
SDAD1	6.56E-10	0.999999999	-4.652751266	0.030024588
SDAD1P1	6.51E-10	0.999999999	-1.582931326	0.333554281
SDC2	6.28E-10	0.999999999	0.873980014	1.832722918
SDCCAG3	6.14E-10	0.999999999	-1.833385052	0.274781716
SDHA	6.03E-10	0.999999999	-1.569673016	0.335647474
SDHAF1	6.00E-10	0.999999999	-2.674828902	0.155121922
SDHAF3	5.99E-10	0.999999999	1.942691356	3.879471625
SDHAF4	5.95E-10	0.999999999	1.188585207	2.280081274
SDHB	5.94E-10	0.999999999	-1.834065866	0.277503166
SDK1	5.66E-10	0.999999999	-2.586018389	0.154520217
SDR16C5	5.52E-10	0.999999999	-1.932376154	0.261775636
SDR42E1	5.52E-10	0.999999999	1.383169774	2.628353123
SEC14L4	5.37E-10	0.999999999	-1.148413647	0.448452007
SEC14L6	5.25E-10	0.999999999	0.871759609	1.830241571
SEC23B	5.16E-10	0.999999999	1.447654648	2.734281819
SEC24B-AS1	5.09E-10	0.999999999	0.877571056	1.838801915
SEC31B	4.88E-10	1	-3.461562579	0.090240304
SEC61A1	4.87E-10	1	-3.762201602	0.061097059
SEC61B	4.86E-10	1	-1.091034631	0.468789292
SECISBP2L	4.83E-10	1	1.113380212	2.163907981
SEH1L	4.80E-10	1	1.49856375	2.82638394
SEMA3C	4.68E-10	1	0.838893038	1.791435666
SEMA3G	4.67E-10	1	1.693392943	3.234219124
SEMA4F	4.60E-10	1	-1.594884317	0.330754907
SEMA5A	4.59E-10	1	2.605141591	6.217406594
SEMA6A	4.59E-10	1	-0.684431297	0.622077616
SEMA6A-AS1	4.57E-10	1	-0.88258886	0.54213786
SEMA6D	4.54E-10	1	1.668120366	3.200309173
SENP3	4.48E-10	1	-2.933606101	0.128633463
SENP7	4.37E-10	1	-1.918475638	0.261531104
SEPHS1	4.23E-10	1	0.764374087	1.699030085
SEPSECS-AS1	4.22E-10	1	1.222541888	2.336582979
1-Sep	4.20E-10	1	1.439016201	2.71845064
10-Sep	4.17E-10	1	1.575675101	2.98636844
3-Sep	4.12E-10	1	1.686816181	3.224989556
4-Sep	4.12E-10	1	1.405615036	2.660177103
SEPT7-AS1	3.92E-10	1	-4.832377652	0.030482906
8-Sep	3.84E-10	1	1.234064138	2.354527089
SERAC1	3.80E-10	1	-0.747685546	0.59532838
SERBP1	3.75E-10	1	0.637789017	1.556888964
SERBP1P6	3.67E-10	1	-3.83542536	0.069393672
SERGEF	3.60E-10	1	-5.823052301	0.014354915
SERPINA10	3.60E-10	1	0.689530071	1.612813324
SERPINA11	3.56E-10	1	-2.39290776	0.188780428
SERPINA9	3.56E-10	1	0.970582128	1.959920118
SERPINB2	3.52E-10	1	-2.062036176	0.234830379
SERPINB6	3.50E-10	1	1.174601263	2.261350343
SERTAD4	3.46E-10	1	-2.599810216	0.153011085
SERTAD4-AS1	3.45E-10	1	1.727280656	3.325375778
SESN2	3.42E-10	1	1.948167363	3.885908602
SETBP1	3.37E-10	1	1.096108693	2.141008109
SETD6	3.29E-10	1	0.98813557	1.983805013
SETD7	3.17E-10	1	0.91089026	1.880447133
SF3A3	3.16E-3	1	0.723214749	1.65123571
SF3B2	3.16E-10	1	1.290941371	2.449503984
SF3B3	3.12E-10	1	-1.313798411	0.401224135
SF3B5	3.07E-10	1	1.949391679	3.927213161
SF3B6	3.07E-10	1	-0.952509127	0.515965829
SFR1P1	2.99E-10	1	0.566084514	1.480663245
SFRP1	2.95E-10	1	-6.662664892	0.007169839
SFTA1P	2.92E-10	1	-1.521995356	0.347553794
SFXN1	2.85E-10	1	1.509805967	2.86172962
SFXN2	2.79E-10	1	-5.170095989	0.027322718

SFXN4	2.72E-10	1	-1.68373292	0.307940072
SGCB	2.65E-10	1	1.037843941	2.054393039
SGK1	2.63E-10	1	-2.391509812	0.184149191
SGK2	2.63E-10	1	1.461863759	2.757770999
SGMS1	2.60E-10	1	-1.457891584	0.363079088
SGPL1	2.52E-10	1	0.857032521	1.81274826
SGTA	2.48E-10	1	-3.890532302	0.06589696
SH2D2A	2.44E-10	1	2.99007021	8.028168542
SH2D4A	2.44E-10	1	-1.55142574	0.338373937
SH3KBP1	2.42E-10	1	1.165955217	2.248949455
SH3PXD2A-AS1	2.39E-10	1	1.621465775	3.077045217
SH3RF1	2.38E-10	1	-4.147275901	0.055678096
SH3RF3	2.37E-10	1	1.256605978	2.389406273
SHANK2	2.36E-10	1	-2.181727547	0.217461126
SHANK2-AS1	2.32E-10	1	-2.434503339	0.175060468
SHANK2-AS2	2.25E-10	1	0.841447565	1.795154471
SHANK2-AS3	2.16E-10	1	1.911683392	3.865651479
SHB	2.04E-10	1	-2.789564443	0.139195056
SHC3	2.04E-10	1	-1.18174832	0.440090391
SHC4	2.03E-10	1	1.632131239	3.104492649
SHE	2.02E-10	1	0.62297435	1.540530626
SHF	2.00E-10	1	1.220090692	2.332151071
SHMT1	1.97E-10	1	1.13455883	2.197253021
SHMT2	1.97E-10	1	0.843407884	1.795074627
SHROOM2	1.96E-10	1	-4.832101938	0.032258155
SHROOM4	1.93E-10	1	-3.030675944	0.11929265
SIGMAR1	1.92E-10	1	1.321933576	2.508348291
SIL1	1.88E-10	1	1.372105156	2.592489899
SIRPA	1.86E-10	1	1.30759881	2.477208508
SKA1	1.78E-10	1	-1.803904966	0.282459748
SKI	1.76E-10	1	0.877049405	1.837252887
SKINTL	1.72E-10	1	-3.25601146	0.09701244
SLA	1.67E-10	1	0.633443901	1.551352891
SLAMF8	1.67E-10	1	0.634246816	1.552608948
SLBP	1.62E-10	1	-0.583969081	0.666925297
SLC10A1	1.61E-10	1	0.665509475	1.586465035
SLC12A1	1.55E-10	1	1.619020864	3.07744602
SLC12A8	1.52E-10	1	-1.186339497	0.438791497
SLC13A4	1.44E-10	1	-1.947573529	0.255935643
SLC14A2	1.41E-10	1	-2.054844607	0.236360888
SLC15A3	1.40E-10	1	-3.302276421	0.100649093
SLC16A1	1.33E-10	1	-3.235038983	0.101513655
SLC16A10	1.31E-10	1	-4.951221003	0.027351886
SLC16A14	1.26E-10	1	-3.453616669	0.073254281
SLC16A1-AS1	1.24E-10	1	1.090809404	2.130240012
SLC16A3	1.23E-10	1	1.654874885	3.189440485
SLC16A6	1.23E-10	1	-1.054394056	0.479527403
SLC16A9	1.18E-10	1	0.653544042	1.573294293
SLC18B1	1.17E-10	1	0.98904304	1.986231875
SLC1A2	1.13E-10	1	-1.679977977	0.308831145
SLC1A4	1.11E-10	1	-3.908562268	0.058447701
SLC1A5	1.10E-10	1	0.680131991	1.60297762
SLC22A15	1.06E-10	1	-1.241239132	0.422852952
SLC22A17	1.04E-10	1	0.600915884	1.517587255
SLC22A4	1.04E-10	1	0.765753934	1.70189388
SLC24A3	1.02E-10	1	-0.760768828	0.589964273
SLC25A1	1.01E-10	1	0.814653409	1.759712523
SLC25A13	9.88E-11	1	1.685426309	3.239522059
SLC25A15	9.56E-11	1	-0.710224647	0.611202344
SLC25A15P5	9.28E-11	1	1.103797753	2.14972367
SLC25A17	8.98E-11	1	0.691094208	1.614728578
SLC25A19	8.79E-11	1	-2.359277745	0.189773757
SLC25A2	8.77E-11	1	-1.468233348	0.358748875
SLC25A21	8.72E-11	1	0.884471545	1.847676497
SLC25A22	8.28E-11	1	0.95474127	1.938342289
SLC25A25	8.25E-11	1	0.957875998	1.942609736
SLC25A3	8.18E-11	1	-1.648458171	0.318885796
SLC25A32	7.39E-11	1	1.891666513	3.7534858
SLC25A33	7.15E-11	1	-2.978214266	0.126490179
SLC25A38	6.97E-11	1	-3.429694919	0.09137557
SLC25A39	6.95E-11	1	-1.618433896	0.322634794
SLC25A4	6.61E-11	1	-2.967180331	0.127517352
SLC25A48	6.54E-11	1	1.120172182	2.178679283
SLC25A5	6.07E-11	1	1.362002947	2.580021985
SLC25A6	5.87E-11	1	-3.129856269	0.097465745
SLC26A2	5.81E-11	1	-0.972991387	0.509369543
SLC26A4	5.73E-11	1	1.73119085	3.321467229
SLC26A8	5.37E-11	1	-2.912194513	0.132654349
SLC27A2	5.34E-11	1	3.163420503	9.109965315
SLC27A5	5.31E-11	1	0.657456157	1.578067423
SLC28A1	5.22E-11	1	1.700320721	3.249931994
SLC29A2	5.14E-11	1	-2.741244807	0.147740355
SLC2A14	5.09E-11	1	1.285751198	2.438846842
SLC2A4	5.04E-11	1	1.530086269	2.902609165
SLC2A9	4.85E-11	1	-3.421492537	0.087710551
SLC30A2	4.81E-11	1	-2.63372265	0.161106835
SLC30A4	4.78E-11	1	-2.013677721	0.247369096
SLC31A1	4.53E-11	1	-1.197686021	0.434148988
SLC35A2	4.52E-11	1	1.617691675	3.071471937
SLC35B1	4.34E-11	1	0.55496942	1.469204215
SLC35B2	4.27E-11	1	0.644153446	1.563790636
SLC35F3	4.14E-11	1	-3.449288385	0.081947668
SLC35F6	4.02E-11	1	-2.511474892	0.168536485

SLC35G1	3.95E-11	1	-2.215945503	0.215168577
SLC37A4	3.90E-11	1	-2.695373693	0.151901361
SLC39A1	3.84E-11	1	-1.831415394	0.280516874
SLC39A14	3.77E-11	1	1.760911437	3.389907796
SLC39A3	3.55E-11	1	0.741627539	1.672657974
SLC39A4	3.54E-11	1	2.508993876	5.851408074
SLC3A1	3.53E-11	1	1.285076883	2.440258024
SLC3A2	3.50E-11	1	-1.096183218	0.465735284
SLC43A1	3.44E-11	1	0.632776356	1.550736896
SLC43A2	3.43E-11	1	-2.523249284	0.171621045
SLC43A3	3.31E-11	1	-0.571927126	0.672608594
SLC44A3	3.26E-11	1	1.520480643	2.875042317
SLC44A5	3.23E-11	1	-2.619709479	0.160757041
SLC45A4	3.09E-11	1	0.804691564	1.747307147
SLC46A3	3.01E-11	1	1.146307941	2.217826579
SLC4A5	2.96E-11	1	1.493911323	2.81654578
SLC50A1	2.94E-11	1	-1.6394429	0.317578651
SLC5A1	2.92E-11	1	1.36454976	2.575819846
SLC5A6	2.80E-11	1	1.210731876	2.315481767
SLC5A9	2.58E-11	1	0.57479456	1.490009443
SLC6A11	2.54E-11	1	1.293376093	2.452702983
SLC6A14	2.54E-11	1	1.012698816	2.018378645
SLC6A15	2.44E-11	1	-2.31050342	0.198989007
SLC6A16	2.40E-11	1	-4.2357883	0.048243123
SLC6A2	2.22E-11	1	-3.136117324	0.112944394
SLC6A4	2.22E-11	1	-2.897583007	0.127970832
SLC6A6	2.21E-11	1	1.773244576	3.434778066
SLC6A8	2.11E-11	1	-1.856798204	0.274228134
SLC7A1	2.08E-11	1	-0.791555107	0.576793524
SLC7A11	2.07E-11	1	1.228059309	2.343571973
SLC7A2	1.98E-11	1	-0.830704781	0.561398036
SLC7A5	1.97E-11	1	1.604657858	3.046995198
SLC7A6	1.96E-11	1	-6.187095279	0.008063969
SLC8A1	1.96E-11	1	1.072141369	2.106749189
SLC9A4	1.94E-11	1	-2.504239344	0.176022939
SLC9B2	1.94E-11	1	1.627303062	3.092169049
SLC9C1	1.92E-11	1	1.262253443	2.40247638
SLCO2A1	1.90E-11	1	1.4200924	2.676496609
SLCO2B1	1.89E-11	1	0.977030074	1.970350654
SLCO3A1	1.89E-11	1	1.838271891	3.609370372
SLCO4A1	1.88E-11	1	-2.450446152	0.178148049
SLCO5A1	1.87E-11	1	-3.426909166	0.09077141
SLFNL1-AS1	1.83E-11	1	2.7742845	7.386630572
SLIRP	1.80E-11	1	-2.359838357	0.190145143
SLIT2	1.79E-11	1	-1.74064599	0.294576859
SLIT3	1.79E-11	1	-3.997969119	0.042428093
SLITRK4	1.77E-11	1	1.135256499	2.197155356
SMAD3	1.75E-11	1	2.401779076	5.44935814
SMAD7	1.66E-11	1	0.641738741	1.560761695
SMAP2	1.64E-11	1	1.690534631	3.261362551
SMARCA2	1.56E-11	1	1.173766361	2.258632782
SMARCD2	1.56E-11	1	0.906201059	1.874622899
SMC1A	1.55E-11	1	-1.79867174	0.285396866
SMC5-AS1	1.54E-11	1	0.895111307	1.860182354
SMG1P1	1.45E-11	1	-1.385350461	0.382643894
SMG6	1.45E-11	1	2.771763336	6.836652182
SMIM12	1.42E-11	1	1.481097681	2.792491266
SMIM14	1.36E-11	1	1.300213995	2.463052599
SMKR1	1.31E-11	1	-5.78375324	0.017087109
SMN1	1.29E-11	1	-2.366495569	0.193681812
SMOC1	1.26E-11	1	1.054944047	2.07821768
SMPD2	1.25E-11	1	-1.371133771	0.384639903
SMPDL3B	1.24E-11	1	0.523435167	1.437938542
SMS	1.22E-11	1	0.948993129	1.932681348
SMYD2	1.18E-11	1	-1.417613199	0.374223681
SMYD5	1.13E-11	1	2.06502412	4.236776856
SNAPC4	1.12E-11	1	-1.70240344	0.304473996
SND1	1.10E-11	1	1.215627147	2.323008184
SNHG1	1.09E-11	1	-2.118582508	0.229004895
SNHG12	1.07E-11	1	-1.534238991	0.341362569
SNHG15	1.02E-11	1	1.111344067	2.160475132
SNHG16	9.74E-12	1	0.632599005	1.550835931
SNHG17	9.69E-12	1	-2.361152898	0.191211189
SNHG18	9.66E-12	1	-1.444833475	0.36605916
SNHG19	9.56E-12	1	0.955970594	1.940634683
SNHG20	9.11E-12	1	1.254743268	2.387301212
SNHG25	8.96E-12	1	-1.193595953	0.435655193
SNHG3	8.92E-12	1	-3.643165885	0.067793378
SNHG4	8.76E-12	1	-1.969951	0.254541067
SNHG5	8.52E-12	1	1.28011197	2.432149652
SNHG6	8.48E-12	1	0.805610592	1.748961851
SNHG7	8.25E-12	1	0.516905752	1.431563707
SNHG8	8.22E-12	1	-2.481612527	0.170331671
SNHG9	8.18E-12	1	1.286220269	2.449229457
SNORA13	8.04E-12	1	1.60193519	3.037230839
SNORA14B	8.03E-12	1	1.39699243	2.637759332
SNORA33	7.89E-12	1	2.287634994	4.913997768
SNORA45	7.76E-12	1	-1.27668134	0.409532406
SNORA55	7.74E-12	1	1.337672014	2.532771527
SNORA71A	7.16E-12	1	1.848396283	3.67202723
SNORA71B	7.13E-12	1	1.108734655	2.156998325
SNORA71D	6.94E-12	1	2.491776872	5.913949563
SNORA80	6.86E-12	1	-4.504749067	0.042985129

SNORD100	6.82E-12	1	1.518037742	2.866070986
SNORD101	6.64E-12	1	1.998393568	4.029046586
SNORD11	6.59E-12	1	-2.585817606	0.156802735
SNORD116-13	6.07E-12	1	1.98161717	3.956576065
SNORD11B	6.07E-12	1	0.733929579	1.663435468
SNORD12B	5.92E-12	1	-1.880346156	0.269470871
SNORD12C	5.91E-12	1	-1.522962473	0.347410435
SNORD14E	5.72E-12	1	-1.393077208	0.378403333
SNORD15B	5.54E-12	1	1.512485258	2.853302901
SNORD20	5.53E-12	1	1.588496354	3.015665662
SNORD3A	5.41E-12	1	0.635190366	1.554116541
SNORD3B-1	5.25E-12	1	-5.172446039	0.024851107
SNORD3B-2	5.03E-12	1	1.652863101	3.15011917
SNORD46	4.98E-12	1	1.308016696	2.477135075
SNORD7	4.87E-12	1	1.119188706	2.174246763
SNORD70	4.77E-12	1	-1.662442582	0.315693108
SNORD83A	4.51E-12	1	-1.559777656	0.338833628
SNORD91B	4.48E-12	1	-3.426214733	0.092451289
SNORD99	4.46E-12	1	0.992855281	1.990827013
snoU2_19	4.45E-12	1	0.987294806	1.983843951
snoU2-30	4.36E-12	1	-2.071605033	0.233019357
SNRK-AS1	4.34E-12	1	-1.445657937	0.36651129
SNRNP25	4.30E-12	1	0.879249799	1.840004467
SNRNP40	4.27E-12	1	-2.022225221	0.244693282
SNRPA	4.23E-12	1	-3.027971215	0.121672107
SNRPA1	4.07E-12	1	-1.49255046	0.354325281
SNRPB	4.06E-12	1	1.538268892	2.906171645
SNRPC	4.03E-12	1	-1.456722907	0.362118259
SNRPD1	3.65E-12	1	0.92494627	1.899461102
SNRPD2	3.60E-12	1	1.286442454	2.441587671
SNRPD3	3.59E-12	1	-4.822892369	0.024915334
SNRPE	3.51E-12	1	0.860179514	1.815646779
SNRPF	3.43E-12	1	0.789771997	1.730063045
SNRPG	3.39E-12	1	-0.918229013	0.528367621
SNRPGP9	3.33E-12	1	-2.139159353	0.220236863
SNU13	3.28E-12	1	-3.091516677	0.113726275
SNX15	3.27E-12	1	-1.345979014	0.393045726
SNX18P3	3.14E-12	1	-5.38623287	0.02228674
SNX18P7	3.11E-12	1	0.865831306	1.823235187
SNX22	3.09E-12	1	-1.350740441	0.389912259
SNX24	3.07E-12	1	-1.13509476	0.45327748
SNX5	2.94E-12	1	-0.849343739	0.554330418
SOBP	2.92E-12	1	-0.691041874	0.618997111
SOD1	2.82E-12	1	-0.761501258	0.589463237
SORBS1	2.82E-12	1	-1.198470252	0.435557882
SORD	2.80E-12	1	-2.46280146	0.178992896
SORL1	2.79E-12	1	0.800080442	1.741649611
SORT1	2.73E-12	1	-1.88537576	0.269240353
SOWAHB	2.64E-12	1	1.048160677	2.069693105
SOX2	2.59E-12	1	-1.140337363	0.451706939
SOX6	2.55E-12	1	-0.908445475	0.532557726
SOX9	2.53E-12	1	-1.460468149	0.361985504
SOX9-AS1	2.40E-12	1	0.972800206	1.963035196
SP110	2.34E-12	1	1.384185391	2.611330715
SP140L	2.32E-12	1	-7.150717077	0.006055588
SPAG17	2.28E-12	1	1.352326343	2.554350418
SPAG5	2.26E-12	1	-1.134256506	0.455200777
SPAG7	2.20E-12	1	-1.687948432	0.309987422
SPARCL1	2.16E-12	1	-1.112387861	0.462298027
SPATA1	2.01E-12	1	-2.230524685	0.210189506
SPATA6	1.96E-12	1	1.253411811	2.384862852
SPC24	1.95E-12	1	-0.910568802	0.531669556
SPC25	1.90E-12	1	0.877389862	1.839472303
SPDL1	1.86E-12	1	0.710441709	1.637947776
SPECC1	1.86E-12	1	-0.92137547	0.527890174
SPESP1	1.68E-12	1	0.768237065	1.703936252
SPG21	1.66E-12	1	-2.078204611	0.229421002
SPIN4	1.66E-12	1	0.920973516	1.894088573
SPIN4-AS1	1.66E-12	1	1.404775265	2.652017933
SPINK13	1.65E-12	1	0.904084657	1.872771175
SPINK7	1.56E-12	1	1.861752302	3.638642512
SPINK9	1.55E-12	1	2.485891095	5.920099596
SPNS2	1.54E-12	1	1.129752379	2.188625957
SPPL3	1.41E-12	1	0.755579991	1.688867933
SPR	1.38E-12	1	0.862919983	1.819691482
SPRED2	1.30E-12	1	0.74374814	1.675321973
SPRED3	1.26E-12	1	1.993849254	3.992267854
SPRR2A	1.24E-12	1	-4.529924369	0.042496293
SPRY2	1.20E-12	1	-0.909705734	0.53214488
SPRY4	1.20E-12	1	0.984372286	1.979124476
SPRYD4	1.19E-12	1	-5.391512802	0.019382837
SPTLC3	1.14E-12	1	1.264103867	2.406067046
SPTSSB	1.10E-12	1	1.909838167	3.760385248
SQLE	9.99E-13	1	0.720415633	1.648091949
SQSTM1	9.72E-13	1	-3.22584296	0.092114592
SRD5A3	9.63E-13	1	1.835785526	3.578493123
SRGAP1	9.31E-13	1	1.263124418	2.412372856
SRGAP2	9.22E-13	1	-1.524839256	0.347022374
SRM	8.77E-13	1	1.963324223	3.953328301
SRP72	8.69E-13	1	-1.070849097	0.475832859
SRPK1	8.56E-13	1	1.746965955	3.366413284
SRPRB	8.09E-13	1	0.987400026	1.982675246
SRRD	8.04E-13	1	0.859378453	1.814423164

SRRM1P3	7.89E-13	1	-2.717943405	0.140053429
SRSF12	7.73E-13	1	1.324847667	2.505738543
SRSF7	7.68E-13	1	1.60016992	3.038439678
SRSF9	7.47E-13	1	2.331173	5.221149122
SS18L2	6.97E-13	1	-2.067937116	0.236710693
SSB	6.57E-13	1	3.203134126	9.333929426
SSBP1	6.41E-13	1	-0.663407116	0.631242241
SSBP3	6.29E-13	1	1.691615575	3.254519057
SSBP3-AS1	5.97E-13	1	1.421563753	2.681349132
SSBP4	5.80E-13	1	-2.985375798	0.115606527
SSC4D	5.76E-13	1	1.506254476	2.841068333
SSFA2	5.62E-13	1	-1.270746417	0.412859185
SSPN	5.40E-13	1	1.366592177	2.582881571
SSPO	5.17E-13	1	-2.22014788	0.214557052
SSR2	5.07E-13	1	1.400418905	2.640223132
SSR4	5.06E-13	1	-6.456221136	0.01092429
SSRP1	5.02E-13	1	1.565532997	2.960933043
SSU72	4.96E-13	1	-2.364202737	0.193463259
ST13	4.75E-13	1	1.225859956	2.339682171
ST13P20	4.44E-13	1	-1.213633631	0.431059575
ST3GAL1	4.43E-13	1	-4.586112391	0.0382848
ST3GAL4-AS1	4.42E-13	1	-2.945928248	0.12733482
ST3GAL5	4.41E-13	1	1.216303752	2.32533974
ST3GAL6	4.39E-13	1	-5.73411759	0.011336606
ST6GALNAC2	4.32E-13	1	0.944337944	1.925932043
ST6GALNAC3	4.21E-13	1	0.881941817	1.846129895
ST6GALNAC4	4.07E-13	1	1.09269799	2.133238808
ST6GALNAC5	4.00E-13	1	-3.426242669	0.088273508
ST8SIA1	3.77E-13	1	1.339528992	2.532973557
STAC2	3.44E-13	1	-2.017463697	0.244602637
STAG3	3.35E-13	1	-1.104843455	0.464326574
STARD13	3.21E-13	1	-1.972098796	0.25439697
STARD9	3.16E-13	1	-5.485023439	0.01316615
STAT2	3.14E-13	1	-1.521390348	0.346511707
STC1	3.14E-13	1	-1.236225737	0.424342653
STC2	3.13E-13	1	0.899125742	1.868048627
STEAP1	3.08E-13	1	0.704152115	1.629813151
STEAP3	2.91E-13	1	1.656466073	3.154675972
STEAP3-AS1	2.85E-13	1	-3.447649776	0.07479
STIM1	2.82E-13	1	1.00307316	2.004396692
STIP1	2.70E-13	1	2.040086917	4.179465082
STK25	2.70E-13	1	0.827663547	1.775182776
STK26	2.64E-13	1	0.518273482	1.432610558
STK38	2.57E-13	1	-1.472817827	0.360099335
STMN3	2.53E-13	1	-3.218827892	0.103524187
STOML2	2.40E-13	1	1.031306829	2.046023805
STON1	2.38E-13	1	1.390685719	2.626266264
STON2	2.31E-13	1	-0.554755886	0.68053235
STOX1	2.27E-13	1	-2.413085995	0.185202167
STOX2	2.24E-13	1	-4.02776491	0.060791248
STPG2	2.20E-13	1	0.808993462	1.752897224
STRA13	2.04E-13	1	1.507926149	2.848898852
STRA6	2.03E-13	1	2.958410629	7.865344236
STS	2.02E-13	1	-1.345342606	0.391859184
STUB1	2.01E-13	1	1.27815672	2.428231624
STXBP1	1.97E-13	1	1.722387945	3.30154878
STYK1	1.96E-13	1	0.909122015	1.879552638
SUCLG2	1.96E-13	1	-1.27355057	0.413520022
SUCLG2-AS1	1.85E-13	1	-5.5361849	0.019763351
SULF2	1.80E-13	1	1.22065648	2.330610093
SULT1A1	1.78E-13	1	-4.086397831	0.041812748
SUMO2P14	1.75E-13	1	1.373292867	2.591643596
SUPT16H	1.67E-13	1	1.638423945	3.120743171
SUPT6H	1.64E-13	1	-3.848458208	0.068362452
SUPV3L1	1.61E-13	1	1.064014477	2.091113525
SURF2	1.50E-13	1	1.939636626	3.867024098
SURF6	1.48E-13	1	0.691222132	1.616225359
SUSD4	1.45E-13	1	-6.66454427	0.009681559
SUV39H1	1.44E-13	1	1.460414759	2.75705511
SUV420H1	1.37E-13	1	-4.710656882	0.032640622
SV2B	1.33E-13	1	1.49523616	2.839786823
SVIL-AS1	1.26E-13	1	2.266878216	4.825871265
SWT1	1.24E-13	1	1.346362777	2.543602048
SYBU	1.20E-13	1	-6.04463167	0.015112701
SYCP2	1.19E-13	1	-2.889839304	0.134095043
SYCP3	1.14E-13	1	1.377517747	2.610552142
SYK	1.14E-13	1	-4.873828923	0.022620252
SYN2	1.11E-13	1	-2.154101738	0.219606175
SYNC	1.08E-13	1	-3.665321859	0.06276534
SYNE1	1.07E-13	1	1.195876543	2.292126101
SYNE3	1.07E-13	1	3.474687532	12.93568174
SYNJ2	1.06E-13	1	1.486886845	2.807560053
SYNM	1.02E-13	1	1.825763233	3.54552109
SYNPO2	9.65E-14	1	-1.206921049	0.433067214
SYNRG	9.51E-14	1	0.850306838	1.80489416
SYT1	9.47E-14	1	-3.838109155	0.065966943
SYT15	8.99E-14	1	0.886419593	1.84964561
SYT2	8.74E-14	1	0.779204643	1.716352873
SYT9	8.64E-14	1	1.07302192	2.104231196
TACC3	8.42E-14	1	0.949378933	1.931807729
TACO1	8.33E-14	1	-3.149380054	0.110311506
TACR1	8.13E-14	1	1.192486738	2.28619203
TAF4B	8.09E-14	1	1.464786592	2.765308591

TAF9	7.95E-14	1	-7.254234984	0.004671423
TAGLN2	7.65E-14	1	-2.648718646	0.158740018
TALDO1	7.17E-14	1	1.053784196	2.07716078
TANGO6	7.19E-14	1	1.088425747	2.129631689
TAP2	6.84E-14	1	1.525537469	2.885886621
TAPT1-AS1	6.35E-14	1	-5.406885474	0.022365295
TARBP1	6.34E-14	1	1.824754773	3.548266343
TARS	6.34E-14	1	2.292509659	4.933443125
TARS2	6.14E-14	1	1.895071703	3.722043
TATDN2	5.93E-14	1	1.430957589	2.696962149
TATDN2P2	5.70E-14	1	0.613195813	1.52993488
TATDN3	5.63E-14	1	-5.181417076	0.022994019
TBC1D24	5.37E-14	1	0.955946491	1.941156619
TBC1D30	5.34E-14	1	-5.316026375	0.024915603
TBC1D9	5.25E-14	1	-1.655624758	0.31481819
TBCA	5.21E-14	1	1.236481081	2.35815181
TBCD	4.86E-14	1	1.567560779	2.97504163
TBL2	4.76E-14	1	1.790540156	3.463198241
TBRG4	4.71E-14	1	-3.242733269	0.105105137
TBX19	4.57E-14	1	1.788930639	3.479645965
TBX3	4.32E-14	1	2.436772055	5.435424414
TCEA3	4.34E-14	1	-1.640920564	0.319521596
TCEB1	4.01E-14	1	-4.823363688	0.023435427
TCEB1P21	4.01E-14	1	1.134147095	2.195689663
TCEB3	3.82E-14	1	0.596183302	1.511858457
TCERG1	3.84E-14	1	-4.557045643	0.039339455
TCF7L1	3.40E-14	1	1.228438104	2.344562278
TCF7L1-IT1	3.35E-14	1	1.271522797	2.414255736
TCF7L2	3.32E-14	1	-3.066708255	0.117291228
TCN1	3.32E-14	1	1.261230995	2.407054864
TCOF1	3.28E-14	1	0.637590117	1.555962513
TCP1	3.25E-14	1	1.453290691	2.747092128
TCP11L1	3.23E-14	1	0.593495299	1.508999251
TCP11L2	3.14E-14	1	0.960642116	1.947867408
TCTE3	3.14E-14	1	-2.070978653	0.232560853
TCTEX1D2	2.68E-14	1	-0.673704795	0.626554089
TDG	2.61E-14	1	1.041006232	2.058199343
TDP1	2.63E-14	1	-5.147189103	0.028157527
TDRD1	2.44E-14	1	-4.398213849	0.045037343
TDRD12	2.38E-14	1	1.646588892	3.13164257
TEAD4	2.36E-14	1	-1.14804699	0.449833965
TENM1	2.32E-14	1	-3.278134171	0.094877315
TENM2	2.28E-14	1	1.666677082	3.178909643
TENM3	2.21E-14	1	1.294705971	2.455280248
TENM4	2.13E-14	1	3.139186167	9.474574362
TEP1	2.07E-14	1	1.079699258	2.114569914
TET2	1.91E-14	1	-1.255883038	0.417154466
TET2-AS1	1.87E-14	1	-1.738813356	0.294399306
TEX14	1.89E-14	1	0.514601037	1.428784244
TEX264	1.81E-14	1	1.508906709	2.847762716
TFAP2A	1.75E-14	1	1.393932401	2.645761726
TFAP2C	1.77E-14	1	0.587398443	1.502596106
TFAP4	1.65E-14	1	0.987529598	1.983438614
TFB1M	1.65E-14	1	1.076178915	2.115099678
TFB2M	1.55E-14	1	1.212327474	2.319103771
TFDP1	1.55E-14	1	1.087963891	2.127493314
TFP1	1.45E-14	1	-4.188687004	0.04989635
TFPI	1.52E-14	1	1.308266847	2.481957821
TFRC	1.40E-14	1	-2.420404618	0.177630139
TG	1.29E-14	1	1.271538932	2.415274563
TGFB1I1	1.34E-14	1	1.182140338	2.272716344
TGFBR2	1.34E-14	1	-5.322828514	0.022667665
TGFBR3	1.17E-14	1	0.792774287	1.732635421
TGM5	1.14E-14	1	-0.613022356	0.653625121
THAP2	1.09E-14	1	1.588056359	3.009033609
THAP4	1.13E-14	1	-1.407616369	0.375275104
THBS1	1.14E-14	1	0.888488757	1.851858367
THEM6	9.55E-15	1	0.640488422	1.559706826
THG1L	9.66E-15	1	1.649319355	3.13883595
THOC3	1.02E-14	1	-3.436603663	0.088366731
THOC5	1.02E-14	1	-1.403978037	0.374897065
THOP1	8.88E-15	1	1.539736101	2.919061213
THRAP3	8.88E-15	1	1.504007649	2.842139115
THRB	8.10E-15	1	1.202714227	2.312209123
THRB-IT1	7.77E-15	1	1.036454447	2.051552358
THSD1	7.55E-15	1	2.265780079	4.824896047
THSD4-AS1	8.44E-15	1	1.043394548	2.062084666
TIAM2	7.11E-15	1	-2.223294622	0.213276434
TICAM1	6.77E-15	1	1.086289918	2.12392914
TICRR	6.55E-15	1	1.703977467	3.258620688
TIMELESS	6.66E-15	1	1.053281221	2.075414591
TIMM10	6.77E-15	1	1.427968691	2.690827364
TIMM10B	7.11E-15	1	2.040545669	4.211851072
TIMM13	5.88E-15	1	-1.755583699	0.293603043
TIMM17A	6.22E-15	1	-5.714110285	0.018015542
TIMM21	6.33E-15	1	1.792211436	3.498206554
TIMM22	6.22E-15	1	1.359701488	2.57001725
TIMM23	6.22E-15	1	-0.947567114	0.517287924
TIMM44	6.22E-15	1	1.022490093	2.035219886
TIMM50	5.00E-15	1	1.65901788	3.172834573
TIMM8A	5.44E-15	1	1.854228293	3.624243958
TIMM8B	4.66E-15	1	1.103249897	2.149711783
TIMM9	4.22E-15	1	-1.679108104	0.311147382

TIMMDC1	4.44E-15	1	2.536403813	5.850154732
TIMP2	4.11E-15	1	-1.175882549	0.441659782
TIMP3	3.66E-15	1	1.768878672	3.420740162
TIMP4	3.00E-15	1	1.343319827	2.539706518
TINF2	3.22E-15	1	-3.757785446	0.072746204
TIPIN	3.11E-15	1	0.953875962	1.937495664
TK1	2.78E-15	1	-2.163982652	0.22295846
TKT	2.89E-15	1	1.087811591	2.128916463
TLCD2	2.89E-15	1	0.732575654	1.661710238
TLE2	3.22E-15	1	-2.897335862	0.127671644
TLE4	3.11E-15	1	1.162892721	2.242822381
TLR1	2.66E-15	1	0.960203862	1.945865606
TLR10	3.22E-15	1	-0.639722435	0.641715591
TLR2	1.78E-15	1	-3.701001949	0.072833259
TLR5	1.89E-15	1	1.210775405	2.314894708
TLR6	1.55E-15	1	1.151788535	2.228317985
TMA16	1.78E-15	1	0.673095071	1.595690219
TMC5	2.22E-15	1	1.373508633	2.60523607
TMCC1	2.11E-15	1	2.389962632	5.247297359
TMCO3	2.22E-15	1	-4.927310938	0.028390691
TMCO6	2.00E-15	1	1.880642673	3.699897684
TMED3	1.55E-15	1	-1.87016545	0.271432411
TMED8	2.22E-15	1	0.775820727	1.713154362
TMED9	1.89E-15	1	1.667739886	3.177726166
TMEM107	2.11E-15	1	-2.325368196	0.197336971
TMEM109	2.22E-15	1	-6.581341055	0.010255393
TMEM11	2.00E-15	1	1.195353162	2.290885351
TMEM116	1.78E-15	1	-2.401430129	0.189070812
TMEM120B	2.00E-15	1	1.509373566	2.851030008
TMEM132B	5.55E-16	1	0.96166498	1.951527557
TMEM136	8.88E-16	1	-1.071765507	0.475181728
TMEM139	6.66E-16	1	-2.123338417	0.227750518
TMEM141	8.88E-16	1	1.193441062	2.288138323
TMEM147	6.66E-16	1	1.017920253	2.027798863
TMEM147-AS1	6.66E-16	1	1.778256036	3.439788273
TMEM159	5.55E-16	1	-1.309968634	0.403164754
TMEM161A	5.55E-16	1	0.838176303	1.788236943
TMEM169	9.99E-16	1	-2.427901507	0.185587854
TMEM183A	5.55E-16	1	-2.502110786	0.174926743
TMEM184B	5.55E-16	1	1.588183301	3.010249776
TMEM186	1.33E-15	1	0.726719838	1.655567235
TMEM192	7.77E-16	1	0.834822039	1.784078879
TMEM206	5.55E-16	1	1.333829992	2.522173761
TMEM213	5.55E-16	1	1.116664133	2.169446954
TMEM231	5.55E-16	1	-3.300228261	0.093813231
TMEM241	1.22E-15	1	-0.796576628	0.574915949
TMEM246	8.88E-16	1	-3.539027679	0.077957214
TMEM254	1.11E-15	1	0.945550736	1.929517199
TMEM258	9.99E-16	1	1.420415656	2.679219136
TMEM261	1.33E-15	1	-1.872436587	0.269855578
TMEM33	9.99E-16	1	1.588348626	3.019530991
TMEM38A	1.11E-15	1	1.009325201	2.016173107
TMEM38B	5.55E-16	1	1.372092009	2.594541968
TMEM63C	1.22E-15	1	1.448196029	2.729458006
TMEM69	0	1	1.128879631	2.18761503
TMEM70	0	1	0.872427498	1.831167293
TMEM71	0	1	1.130059041	2.192771124
TMEM97	4.44E-16	1	-3.934899826	0.061645432
TMEM98	2.22E-16	1	-1.239795812	0.422277025
TMEM99	0	1	-1.431927114	0.369445015
TMEM9B-AS1	0	1	1.526314379	2.896770074
TMOD2	1.11E-16	1	1.290588783	2.447272506
TMPRSS11A	3.33E-16	1	-5.215745894	0.019945886
TMPRSS11D	0	1	2.245804559	4.748953712
TMPRSS11GP	0	1	1.759660053	3.387184205
TMPRSS2	0	1	0.853030897	1.806978616
TMPRSS3	2.22E-16	1	1.093019981	2.134083325
TMPRSS5	0	1	1.006685022	2.011392778
TMSB15B	0	1	1.190648659	2.282952168
TMSB4X	0	1	1.268055855	2.41265051
TMTC1	0	1	-1.685797385	0.308686071
TMTC4	0	1	2.141991715	4.42234748
TMX2	0	1	3.09233826	8.626461923
TNC	0	1	1.027235662	2.038590655
TNFAIP1	0	1	-3.509028225	0.086925599
TNFAIP8L3	0	1	0.719003315	1.646195388
TNFRSF10A	0	1	1.260999763	2.399050874
TNFRSF10B	0	1	1.1712663	2.253075619
TNFRSF10C	0	1	-3.922070797	0.061795626
TNFRSF10D	0	1	1.001318916	2.002960164
TNFRSF11A	0	1	1.299061346	2.464240418
TNFRSF19	0	1	1.565596566	2.962463136
TNFRSF21	1.11E-16	1	0.882059961	1.844446862
TNFSF10	1.11E-16	1	0.817316147	1.762875687
TNFSF12	0	1	-5.025245234	0.029690053
TNFSF18	0	1	-2.138294416	0.224008098
TNFSF4	0	1	-1.162645312	0.445646886
TNIK	0	1	0.979151085	1.972660548
TNNI1	0	1	1.206532057	2.313732744
TNNT2	2.22E-16	1	1.235166573	2.357768148
TNNT3	0	1	1.358953056	2.569821296
TNPO2	0	1	1.213909408	2.32392694
TNRC6B	0	1	-1.181407591	0.440511309

TNRC6C	0	1	0.877804555	1.837998715
TNRC6C-AS1	4.44E-16	1	0.571173342	1.486133562
TOE1	0	1	1.613589058	3.065947288
TOMM20	0	1	-3.575173365	0.079861893
TOMM22	0	1	-1.509552499	0.350088876
TOMM34	0	1	1.516721959	2.871276946
TOMM40	0	1	1.561783239	2.952389984
TOMM40L	0	1	1.213710672	2.319580397
TOMM5	0	1	1.348814358	2.54736974
TOMM7	0	1	4.014039594	18.70270089
TONSL	0	1	1.463130052	2.762717448
TONSL-AS1	0	1	1.275076978	2.422266612
TOR3A	0	1	0.777977816	1.715336239
TOX	0	1	-2.085316898	0.234842409
TP53I3	0	1	-3.928110532	0.063018144
TP53INP2	0	1	1.125418567	2.186053867
TPI1	0	1	0.608015098	1.524282486
TPM1	0	1	2.391115832	5.272936054
TPP1	0	1	-3.646230021	0.070993697
TPRG1	0	1	-4.289215018	0.038455963
TPRXL	1.11E-16	1	-3.624316158	0.075844955
TPT1-AS1	0	1	0.610246907	1.526710864
TPT1P5	0	1	-2.772768431	0.146099808
TPT1P8	0	1	1.076947014	2.111828355
TPTE2P5	0	1	0.539559822	1.453840835
TPTEP1	0	1	0.868044767	1.826203861
TPX2	0	1	-0.918447566	0.528968121
TRABD2A	0	1	5.615178432	52.17005122
TRABD2B	0	1	-1.332721639	0.396015955
TRAF1	0	1	0.938882539	1.917370398
TRAIP	0	1	-2.223123773	0.211979127
TRAM2	0	1	-2.853062896	0.132199935
TRANK1	2.22E-16	1	-5.037850593	0.022032766
TRAP1	0	1	-0.792999821	0.576894084
TRAPPC2L	0	1	-2.749102985	0.142516634
TRERF1	0	1	-1.483524427	0.356543142
TRHDE-AS1	0	1	-1.831140806	0.277948173
TRIAP1	0	1	-0.540876896	0.687335694
TRIB2	0	1	-4.017205064	0.053650122
TRIL	0	1	-3.485420405	0.087369456
TRIM11	0	1	1.979080292	3.945808204
TRIM16L	0	1	-2.313390951	0.200948964
TRIM2	0	1	1.214561905	2.323157408
TRIM22	0	1	-1.812546606	0.283407924
TRIM25	0	1	1.144375723	2.210685833
TRIM46	0	1	2.177119891	4.546503048
TRIM5	0	1	0.560717225	1.475109578
TRIM55	0	1	0.591689852	1.507388382
TRIM56	0	1	1.833951542	3.571218733
TRIM6	0	1	-1.473996745	0.358618482
TRIM65	0	1	-3.857897034	0.059556089
TRIM69	0	1	-3.230671351	0.098258656
TRIP13	4.44E-16	1	1.176250193	2.261012783
TRIP6	0	1	1.18996418	2.282562592
TRIT1	0	1	-0.695135728	0.617465995
TRMT1	0	1	1.227571497	2.345883875
TRMT10C	0	1	1.67278696	3.193165505
TRMT11	0	1	2.704253649	6.605178325
TRMT112	0	1	-0.982740235	0.505969659
TRMT6	0	1	0.918198752	1.890050537
TRMU	0	1	0.620578952	1.537851473
TRO	0	1	0.566425813	1.480991372
TROAP	0	1	1.604336912	3.040984324
TRPC1	0	1	1.374368843	2.592917128
TRPM2	0	1	1.334215896	2.521898592
TRPM8	0	1	2.661947887	6.393785141
TRPS1	0	1	1.063250097	2.089840252
TRPV6	0	1	-1.56825746	0.337118086
TRUB2	0	1	1.586193552	3.002673545
TSEN2	0	1	-7.276117427	0.006341398
TSEN34	0	1	-2.985302181	0.125149306
TSEN54	0	1	-0.585340053	0.666438447
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TSIX	0	1	2.217210562	4.653426182
TSPAN1	1.11E-16	1	-1.299334988	0.404785478
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TSPAN3	0	1	-1.562732546	0.33787254
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TSPAN8	0	1	-1.446184383	0.36616782
TSPYL6	0	1	-0.692022952	0.618682046
TSR1	0	1	-2.316652392	0.200288713
TSSC1	0	1	1.814207822	3.517768511
TSTA3	0	1	0.664480796	1.58560277
TTBK2	0	1	-2.034087147	0.244152498
TTC38	0	1	2.805040345	7.090092162
TTC39A	0	1	1.46584829	2.768766917
TTC39B	0	1	2.037649096	4.105971429
TTC9	0	1	2.504734064	5.68601082
TTF2	0	1	-1.139789024	0.453496944
TTLL12	0	1	1.646701126	3.13129402
TTLL7	0	1	-0.86099913	0.54994595

TTLL7-IT1	0	1	1.101286979	2.146240943
TTN	0	1	1.64290519	3.123338638
TTN-AS1	0	1	4.297134466	21.64914836
TTYH2	0	1	1.463977595	2.760055585
TUB	3.33E-16	1	0.589346717	1.50483253
TUBA1B	0	1	-1.295648078	0.406770715
TUBA1C	0	1	0.808021397	1.7510885
TUBA4A	0	1	0.771172996	1.706995937
TUBAL3	0	1	1.160456986	2.235443297
TUBB	0	1	0.775701594	1.712068678
TUBB2A	0	1	-0.895072833	0.537399043
TUBB2B	0	1	-1.30705513	0.403699539
TUBB4B	0	1	1.368970571	2.58582181
TUBG1	0	1	1.851475156	3.614092176
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TUBGCP4	0	1	1.669412687	3.189840583
TUBGCP5	0	1	0.997887283	1.998280001
TUFM	0	1	1.549104468	2.935357753
TUSC2	0	1	1.500230434	2.832223441
TUSC8	0	1	1.299109212	2.467555152
TVP23C	0	1	1.857227351	3.640852481
TVP23CP1	0	1	1.781282776	3.444131807
TXLNG	0	1	1.379819026	2.603998571
TXN	0	1	0.890987649	1.8554795
TXN2	0	1	2.869345347	7.359548714
TXNDC17	2.22E-16	1	1.323852159	2.505725515
TXNIP	0	1	1.153164468	2.224279134
TXNL4A	0	1	-0.53638792	0.689388395
TXNRD1	0	1	-7.813459955	0.002954509
TXNRD3	0	1	1.16021808	2.235928805
TYMS	0	1	-2.929746524	0.130569364
U2AF2	0	1	1.173541261	2.259133173
UBA52	0	1	1.656566564	3.155662651
UBAC1	0	1	1.843872017	3.590370349
UBAP2L	0	1	-2.854334427	0.131447439
UBB	0	1	-2.949485599	0.122088961
UBC	0	1	-1.303998596	0.404593875
UBE2C	0	1	0.883010857	1.844320513
UBE2G2	0	1	-4.214683182	0.049719668
UBE2I	0	1	-2.205378251	0.216480834
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UBE3D	0	1	-10.86423738	0.000501611
UBIAD1	0	1	1.04722921	2.067643315
UBL4A	0	1	-1.69265758	0.306666894
UBL5	0	1	0.7081224	1.634007896
UBL7	0	1	-5.493549785	0.016431682
UBQLN2	1.11E-16	1	-3.244022935	0.101756037
UBXN8	0	1	-2.6020886	0.162078352
UCHL5	0	1	-2.626848346	0.159277696
UCK2	0	1	2.785454693	6.935686606
UFC1	0	1	-0.615899971	0.652431366
UGDH-AS1	0	1	-4.489010701	0.04386312
UHRF1	0	1	-1.162720703	0.445817921
UHRF1BP1	0	1	-1.786355443	0.286290891
UHRF2P1	0	1	-2.303617173	0.197562256
ULK3	0	1	1.01817682	2.026493679
UMODL1	0	1	0.757502513	1.69086422
UMPS	0	1	1.514340356	2.859972357
UNC93B1	4.44E-16	1	1.212622808	2.318318801
UNG	0	1	-3.009832815	0.124090368
UPP2	0	1	1.081219593	2.121159741
UQCC2	0	1	1.581151276	2.994729546
UQCR10	0	1	-1.132850961	0.455086669
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UQCRC1	2.22E-16	1	0.554817155	1.46915576
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UQCRFS1	0	1	0.776028226	1.713169493
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URB1	0	1	1.670510987	3.188948061
URB2	0	1	1.368255754	2.583033657
UROD	0	1	2.223842623	4.696901709
UROS	4.44E-16	1	1.186586247	2.27728531
USMG5	0	1	1.355715268	2.570907703
USMG5P1	0	1	1.195758493	2.291911882
USP10	0	1	1.225334887	2.339003331
USP2-AS1	0	1	1.072687765	2.103813621
USP36	0	1	1.306584715	2.477699908
USP39	0	1	1.043339049	2.062326576
USP5	0	1	1.630399323	3.098538968
USP6	0	1	0.787824779	1.726718756
UTP11L	0	1	1.016150076	2.026938426
UTP14A	0	1	-0.751838464	0.593624739
UTP15	0	1	-1.571005688	0.334122633
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UTP6	0	1	-2.435000681	0.179018921
UTRN	0	1	1.003220769	2.006522793
VAMP1	2.22E-16	1	-1.132870652	0.455976163
VAMP2	0	1	-1.848590127	0.276784693
VANGL2	1.11E-16	1	0.999972811	2.002231534
VARS	0	1	-0.73649756	0.600018148
VASH2	0	1	1.236143346	2.35627781
VCAM1	0	1	-3.737878549	0.069493283
VCAN	0	1	-3.149064748	0.112626944
VCAN-AS1	0	1	1.579807406	3.004218311
VCP	0	1	-0.977967804	0.507382851
VDAC1	0	1	1.566139331	2.961220232
VDAC2	3.33E-16	1	0.705797227	1.631433662
VDAC3	0	1	0.968888068	1.959154571
VEGFA	0	1	1.48206648	2.796542567
VEGFB	0	1	0.99978131	2.000264844
VEPH1	0	1	0.82484081	1.771585291
VILL	0	1	1.079489414	2.113726078
VIPR1-AS1	0	1	0.672797329	1.594540448
VIT	0	1	0.86030739	1.815801794
VKORC1	0	1	1.321974859	2.503814801
VMA21	0	1	-1.720555069	0.301447087
VN1R108P	0	1	1.919651192	3.79198842
VN1R21P	0	1	2.874140552	7.421176821
VNN2	0	1	-2.070528667	0.2374353
VNN3	0	1	1.529134286	2.889533479
VOPP1	4.44E-16	1	0.75832638	1.691982645
VPRBP	0	1	0.753965143	1.68651258
VPS25	0	1	1.227805649	2.344055726
VPS33B	3.33E-16	1	1.728475326	3.317150977
VPS37B	0	1	0.930835259	1.907287534
VRK1	0	1	-3.440814117	0.0920043
VSIG10	0	1	1.08831022	2.127433327
VSNL1	0	1	0.787455092	1.726523565
VSTM5	0	1	0.828701793	1.776627771
VTI1BP1	0	1	1.021020471	2.030130727
VTRNA1-3	0	1	-2.186117161	0.217690167
VWA1	0	1	1.05562024	2.0792141
VWA5A	0	1	-2.8812157	0.134984325
VWC2L	0	1	1.278309903	2.426705567
VWDE	0	1	-3.170460392	0.109559652
WARS	0	1	-1.472518808	0.35900179
WASF3-AS1	0	1	1.146927203	2.215492124
WBP1L	1.11E-16	1	1.492161648	2.813706744
WBSCR16	4.44E-16	1	0.858232693	1.813219936
WBSCR22	0	1	1.196519702	2.294783719
WDFY2	0	1	-2.523477458	0.171798103
WDFY3	0	1	0.827828454	1.775172165
WDR12	0	1	2.131686982	4.416536357
WDR17	0	1	1.990084755	3.976130052
WDR18	0	1	1.479151038	2.791121132
WDR3	0	1	1.269386272	2.414708731
WDR36	0	1	1.471028632	2.773225954
WDR4	0	1	1.349039273	2.548577041
WDR43	0	1	1.036792278	2.052000165
WDR45B	0	1	1.3100326	2.480572543
WDR46	0	1	1.647047961	3.134631765
WDR5	0	1	1.536252481	2.902686867
WDR55	0	1	1.562828321	2.955358232
WDR62	0	1	-1.871657857	0.269620464
WDR7	1.11E-16	1	1.497928587	2.832697139
WDR74	0	1	0.73458188	1.664160549
WDR76	0	1	-1.847205743	0.277845191
WDR77	0	1	1.242442091	2.370671792
WDR78	0	1	-4.078293665	0.05652648
WDR83OS	0	1	-1.619068382	0.325151268
WDR90	0	1	1.671669474	3.194599273
WEE2	0	1	0.869864537	1.828496744
WEE2-AS1	0	1	-0.767131653	0.587369448
WFDC2	0	1	1.301455332	2.465398086
WHAMMP2	0	1	1.288737031	2.44505489
WI2-3658N16.1	0	1	-0.634214235	0.644130858
WIPF1	0	1	1.151430547	2.222485961
WIPF3	0	1	0.952558273	1.935615946
WNK3	0	1	1.254096314	2.386142235
WNT10A	0	1	1.043975642	2.062412444
WNT10B	2.22E-16	1	0.869898004	1.828389054
WNT11	0	1	0.842010429	1.792886538
WNT2B	0	1	0.650120541	1.569415153
WRAP53	1.11E-16	1	0.969751191	1.958884968
WTIP	0	1	-2.312874411	0.199877368
WWC3	0	1	1.325159434	2.506183616
WWTR1-IT1	0	1	0.854720106	1.808446712
XAF1	0	1	1.955629241	3.920236521
XIST	0	1	1.421070251	2.680885515
XK	0	1	-0.833753155	0.560312394
XKRX	0	1	0.809996555	1.753876093
XPNPEP3	0	1	-1.751297317	0.296491451
XPO5	0	1	-4.510909471	0.035817433
XPO6	0	1	-1.128416322	0.457173514
XPO7	0	1	-3.376165571	0.087120286
XPOT	0	1	0.702370124	1.627382311
XRCC2	0	1	1.257808172	2.391586116

XRCC6	0	1	1.656444222	3.154287227
XXbac-B476C20.13	0	1	2.000979757	4.03191458
XXbac-BPG154L12.	0	1	0.52410352	1.438246511
XXbac-BPGBPG55C	0	1	1.056176687	2.081473584
XXYLT1	0	1	2.684842673	6.471996063
XYLB	0	1	1.224998925	2.344050618
YARS	0	1	0.614713264	1.531514405
YARS2	0	1	-2.817458793	0.137768493
YBX1	0	1	-3.617833358	0.078341652
YDJC	0	1	1.645626546	3.14037743
YEATS4	0	1	2.405012239	5.340459774
YIF1A	2.22E-16	1	-2.622102364	0.160400114
YJEFN3	0	1	-0.965472935	0.511474451
YKT6	0	1	-1.793313589	0.284906786
YPEL1	0	1	-3.030656443	0.115782418
YPEL3	0	1	-1.20203824	0.433510605
YRDC	0	1	-1.373846368	0.384881454
YWHAZP4	0	1	-0.734350772	0.600942868
ZBED6CL	0	1	-4.650199751	0.031442268
ZBTB20	0	1	-1.818154398	0.282404677
ZBTB20-AS1	0	1	1.629685202	3.114767701
ZBTB20-AS4	0	1	-1.718758896	0.301381235
ZBTB24	0	1	-2.170156319	0.221140667
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ZC2HC1A	0	1	-3.565291962	0.076103277
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ZDHHC15	0	1	1.256515429	2.38941016
ZDHHC9	0	1	1.336432649	2.525393491
ZFAND2A	0	1	1.641484217	3.120024602
ZFAS1	0	1	1.800112681	3.482656868
ZFHX3	0	1	1.515184566	2.85846408
ZFP2	0	1	1.732767679	3.323904036
ZFP36L1	0	1	1.559081249	2.947392483
ZFP36L2	0	1	1.662552406	3.165971969
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ZFYVE1	0	1	1.247152036	2.373874497
ZHX2	0	1	1.343949268	2.542030158
ZHX3	0	1	1.622511183	3.079435693
ZIK1	0	1	1.689412575	3.225873296
ZKSCAN1	0	1	1.563293581	2.955394897
ZKSCAN3	0	1	1.364178194	2.574936237
ZMIZ1-AS1	0	1	1.712201089	3.276861583
ZMYND19	0	1	1.21134544	2.315637451
ZNF117	0	1	1.509556126	2.847370581
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ZNF615	0	1	-1.533047928	0.343776693
ZNF622	0	1	-1.053122894	0.480649118
ZNF641	0	1	0.890645456	1.85420565
ZNF660	0	1	1.284791529	2.436923596
ZNF662	0	1	1.067074551	2.096058817
ZNF670-ZNF695	0	1	2.056632422	4.16263318
ZNF674	0	1	1.674550285	3.194615935
ZNF676	0	1	0.887744206	1.851551988
ZNF69	0	1	-2.367288314	0.193464514
ZNF692	0	1	-4.504657558	0.03078998
ZNF695	1.11E-16	1	0.988751413	1.987374805
ZNF696	3.33E-16	1	1.343949878	2.540595901
ZNF699	0	1	-1.476507183	0.359100454
ZNF70	1.11E-16	1	1.249819874	2.378668955
ZNF701	0	1	-2.316897623	0.197430384
ZNF703	0	1	-2.143241992	0.224767065
ZNF711	0	1	0.995925917	1.996489329
ZNF713	0	1	0.902360105	1.869751208
ZNF725P	0	1	-5.781798753	0.013233492
ZNF732	0	1	1.93179206	3.817075685
ZNF737	0	1	1.179838885	2.269047017
ZNF74	0	1	0.685243663	1.608508802
ZNF747	0	1	-1.492724761	0.35281503
ZNF75D	0	1	0.957411676	1.942224145
ZNF763	0	1	1.464200928	2.76115828
ZNF771	1.11E-16	1	1.380320723	2.603561118
ZNF774	0	1	-0.933165578	0.523074003
ZNF778	0	1	-0.842086169	0.557428156
ZNF792	0	1	2.069000025	4.19992633
ZNF812	2.22E-16	1	1.343511641	2.543808808
ZNF829	0	1	1.144919648	2.214457967
ZNF83	0	1	-2.115183896	0.230029344
ZNF830	0	1	0.872035114	1.832031003
ZNF836	0	1	0.724320095	1.652191466
ZNF846	0	1	-1.17393454	0.44318381
ZNF852	0	1	1.7070424	3.265584842
ZNF860	0	1	1.108256803	2.157964015
ZNF879	0	1	1.092394104	2.132696429
ZNF880	0	1	0.79557399	1.735844406
ZNF90P1	1.11E-16	1	1.382491066	2.618267246
ZNRD1	0	1	-3.520569026	0.086013847
ZP3	0	1	0.967752367	1.956099062
ZPR1	0	1	0.690756832	1.614524157
ZSCAN23	0	1	0.828478038	1.77648226
ZSCAN26	0	1	-2.614187589	0.155424231
ZSCAN30	0	1	-1.73704215	0.299402367
ZWINT	0	1	1.464030409	2.760728891

Supplementary Table S2 – Summary of GO-term GSEA result		

Differentially expressed genes in 10A.PM tumors were analyzed by GSEA using GO-term gene sets. Grouped nodes in Figure 3B contain the GO-terms listed here. A summary of all GO terms analyzed are also included.

GROUPINGS:	
Cell Adhesion and Development	
GO_CELL_CELL_ADHESION	
GO_REGULATION_OF_GTPASE_ACTIVITY	
GO_NEURON_DIFFERENTIATION	
GO_CELLULAR_COMPONENT_MORPHOGENESIS	
GO_REGULATION_OF_CELLULAR_COMPONENT_MOVEMENT	
GO_CELL_CELL_SIGNALING	
GO_HEART_DEVELOPMENT	
GO_NEGATIVE_REGULATION_OF_DEVELOPMENTAL_PROCESS	
GO_CARDIOVASCULAR_SYSTEM_DEVELOPMENT	
GO_VASCULATURE_DEVELOPMENT	
GO_BIOLOGICAL_ADHESION	
GO_CELL_MORPHOGENESIS_INVOLVED_IN_DIFFERENTIATION	
GO_NEURON_DEVELOPMENT	
GO_REGULATION_OF_NERVOUS_SYSTEM_DEVELOPMENT	
GO_REGULATION_OF_CELL_DEVELOPMENT	
GO_REGULATION_OF_CELL_DIFFERENTIATION	
GO_CIRCULATORY_SYSTEM_DEVELOPMENT	
GO_CELL_DEVELOPMENT	
GO_REGULATION_OF_NEURON_DIFFERENTIATION	
GO_EPITHELIAL_CELL_DIFFERENTIATION	
GO_REGULATION_OF_CELL_MORPHOGENESIS	
GO_MUSCLE_STRUCTURE_DEVELOPMENT	
GO_NEGATIVE_REGULATION_OF_CELL_DIFFERENTIATION	
Cell Cycle	
GO_CELLULAR_RESPONSE_TO_DNA_DAMAGE_STIMULUS	
GO_DNA_REPAIR	
GO_CELLULAR_RESPONSE_TO_STRESS	
GO_MITOTIC_NUCLEAR_DIVISION	
GO_CHROMATIN_ORGANIZATION	
GO_MITOTIC_CELL_CYCLE	
GO_DNA_METABOLIC_PROCESS	
GO_POSTTRANSCRIPTIONAL_REGULATION_OF_GENE_EXPRESSION	
GO_PROTEIN_COMPLEX_ASSEMBLY	
GO_REGULATION_OF_CELL_CYCLE_PHASE_TRANSITION	
GO_NEGATIVE_REGULATION_OF_ORGANELLE_ORGANIZATION	
GO_REGULATION_OF_MITOTIC_CELL_CYCLE	
GO_PROTEIN_COMPLEX_SUBUNIT_ORGANIZATION	
GO_PROTEIN_MODIFICATION_BY_SMALL_PROTEIN_CONJUGATION_OR_REMOVAL	
GO_MACROMOLECULAR_COMPLEX_ASSEMBLY	
GO_CELL_CYCLE	
GO_CELL_DIVISION	
GO_PROTEIN_CATABOLIC_PROCESS	
GO_PROTEIN_COMPLEX_BIOGENESIS	
GO_POSITIVE_REGULATION_OF_PROTEOLYSIS	
GO_REGULATION_OF_PROTEOLYSIS	
GO_REGULATION_OF_CELL_CYCLE	
GO_ORGANELLE_ASSEMBLY	
GO_CELLULAR_MACROMOLECULAR_COMPLEX_ASSEMBLY	
GO_ORGANELLE_FISSION	
GO_PROTEIN_UBIQUITINATION	
GO_CELL_CYCLE_PROCESS	
GO_CHROMOSOME_ORGANIZATION	
GO_REGULATION_OF_CELL_CYCLE_PROCESS	
GO_DNA_CONFORMATION_CHANGE	
GO_NEGATIVE_REGULATION_OF_CELL_CYCLE	
Metabolism	
GO_SMALL_MOLECULE_BIOSYNTHETIC_PROCESS	
GO_GENERATION_OF_PRECURSOR_METABOLITES_AND_ENERGY	
GO_CARBOHYDRATE_METABOLIC_PROCESS	
GO_CARBOHYDRATE_DERIVATIVE_BIOSYNTHETIC_PROCESS	
GO_NUCLEOSIDE_MONOPHOSPHATE_METABOLIC_PROCESS	
GO_CELLULAR_AMINO_ACID_METABOLIC_PROCESS	
GO_ORGANIC_ACID_METABOLIC_PROCESS	
GO_OXIDATION_REDUCTION_PROCESS	
GO_CARBOHYDRATE_DERIVATIVE_METABOLIC_PROCESS	
GO_PURINE_CONTAINING_COMPOUND_METABOLIC_PROCESS	
GO_GLYCOSYL_COMPOUND_METABOLIC_PROCESS	
GO_COFACTOR_METABOLIC_PROCESS	
GO_NUCLEOBASE_CONTAINING_SMALL_MOLECULE_METABOLIC_PROCESS	
GO_ORGANOPHOSPHATE_METABOLIC_PROCESS	
GO_SINGLE_ORGANISM_BIOSYNTHETIC_PROCESS	
GO_TRANSMEMBRANE_TRANSPORT	
RNA and Protein Synthesis	
GO_ESTABLISHMENT_OF_PROTEIN_LOCALIZATION_TO_MEMBRANE	
GO_RNA_CATABOLIC_PROCESS	
GO_ESTABLISHMENT_OF_PROTEIN_LOCALIZATION	
GO_PROTEIN_TARGETING	
GO_SYMBIOSIS_ENCOMPASSING_MUTUALISM_THROUGH_PARASITISM	
GO_PROTEIN_LOCALIZATION_TO_MEMBRANE	
GO_MACROMOLECULE_CATABOLIC_PROCESS	
GO_ORGANONITROGEN_COMPOUND_BIOSYNTHETIC_PROCESS	
GO_NCRNA_METABOLIC_PROCESS	
GO_TRANSLATIONAL_INITIATION	
GO_PROTEIN_LOCALIZATION	
GO_ORGANIC_CYCLIC_COMPOUND_CATABOLIC_PROCESS	

GO_VIRAL_LIFE_CYCLE	
GO_PROTEIN_LOCALIZATION_TO_ORGANELLE	
GO_SINGLE_ORGANISM_CELLULAR_LOCALIZATION	
GO_CATABOLIC_PROCESS	
GO_RIBOSOME_BIOGENESIS	
GO_INTERSPECIES_INTERACTION_BETWEEN_ORGANISMS	
GO_NITROGEN_COMPOUND_TRANSPORT	
GO_RRNA_METABOLIC_PROCESS	
GO_PEPTIDE_METABOLIC_PROCESS	
GO_RNA_PROCESSING	
GO_MRNA_METABOLIC_PROCESS	
GO_CELLULAR_AMIDE_METABOLIC_PROCESS	
GO_AMIDE_BIOSYNTHETIC_PROCESS	
GO_RIBONUCLEOPROTEIN_COMPLEX_BIOGENESIS	
GO_MEMBRANE_ORGANIZATION	
RNA and Protein Metabolism	
GO_ESTABLISHMENT_OF_LOCALIZATION_IN_CELL	
GO_ESTABLISHMENT_OF_PROTEIN_LOCALIZATION_TO_ORGANELLE	
GO_INTRACELLULAR_PROTEIN_TRANSPORT	
GO_CELLULAR_MACROMOLECULE_LOCALIZATION	
GO_CELLULAR_CATABOLIC_PROCESS	
GO_NCRNA_PROCESSING	

All Biological processes gene sets

NAME	SIZE	ES	NES	NOM p-val	FDR q-val	FWER p-val	RANK AT MAX
GO_RIBONUCLEOPROTEIN_COMPLEX_BIOGENESIS	260	0.700739	2.737249	0	0	0	1076
GO_NCRNA_PROCESSING	222	0.694336	2.720099	0	0	0	1078
GO_RIBOSOME_BIOGENESIS	211	0.704939	2.706077	0	0	0	1039
GO_TRANSLATIONAL_INITIATION	111	0.725213	2.683347	0	0	0	1103
GO_RRNA_METABOLIC_PROCESS	176	0.702099	2.672241	0	0	0	1039
GO_NCRNA_METABOLIC_PROCESS	273	0.675415	2.630119	0	0	0	1086
GO_RNA_CATABOLIC_PROCESS	115	0.705351	2.620501	0	0	0	721
GO_ESTABLISHMENT_OF_PROTEIN_LOCALIZATION_TO_MEMBRANE	113	0.696814	2.585239	0	0	0	776
GO_VIRAL_LIFE_CYCLE	125	0.699305	2.573847	0	0	0	1103
GO_RNA_PROCESSING	334	0.647019	2.541204	0	0	0	1078
GO_AMIDE_BIOSYNTHETIC_PROCESS	272	0.64156	2.518846	0	0	0	1105
GO_MRNA_METABOLIC_PROCESS	211	0.648444	2.51524	0	0	0	1076
GO_ESTABLISHMENT_OF_PROTEIN_LOCALIZATION_TO_ORGANELLE	154	0.666893	2.499924	0	0	0	995
GO_PROTEIN_TARGETING	155	0.658715	2.482041	0	0	0	995
GO_PROTEIN_LOCALIZATION_TO_MEMBRANE	139	0.656501	2.478488	0	0	0	744
GO_PEPTIDE_METABOLIC_PROCESS	281	0.628779	2.471736	0	0	0	1443
GO_ORGANIC_CYCLIC_COMPOUND_CATABOLIC_PROCESS	163	0.643379	2.44473	0	0	0	721
GO_CELLULAR_AMIDE_METABOLIC_PROCESS	324	0.609392	2.421287	0	0	0	1105
GO_PROTEIN_LOCALIZATION_TO_ORGANELLE	184	0.633714	2.420716	0	0	0	995
GO_CELLULAR_MACROMOLECULAR_COMPLEX_ASSEMBLY	240	0.613297	2.412648	0	0	0	992
GO_INTRACELLULAR_PROTEIN_TRANSPORT	208	0.612972	2.36054	0	0	0	995
GO_SYMBIOSIS_ENCOMPASSING_MUTUALISM_THROUGH_PARASITISM	229	0.591008	2.309102	0	0	0	996
GO_ORGANONITROGEN_COMPOUND_BIOSYNTHETIC_PROCESS	416	0.576952	2.299449	0	0	0	1109
GO_INTERSPECIES_INTERACTION_BETWEEN_ORGANISMS	229	0.591008	2.280414	0	0	0	996
GO_MITOCHONDRION_ORGANIZATION	227	0.575594	2.243709	0	0	0	1512
GO_MACROMOLECULE_CATABOLIC_PROCESS	259	0.572306	2.240818	0	0	0	1299
GO_DNA_CONFORMATION_CHANGE	102	0.61413	2.217435	0	0	0	934
GO_SINGLE_ORGANISM_CELLULAR_LOCALIZATION	239	0.563018	2.197163	0	0	0	995
GO_MEMBRANE_ORGANIZATION	229	0.559927	2.182152	0	0	0	1045
GO_CELLULAR_MACROMOLECULE_LOCALIZATION	297	0.550696	2.178533	0	0	0	995
GO_GENERATION_OF_PRECURSOR_METABOLITES_AND_ENERGY	104	0.591068	2.171674	0	0	0	888
GO_NUCLEOSIDE_MONOPHOSPHATE_METABOLIC_PROCESS	100	0.597056	2.163501	0	0	0	896
GO_GLYCOSYL_COMPOUND_METABOLIC_PROCESS	124	0.57495	2.153712	0	0	0	926
GO_ESTABLISHMENT_OF_PROTEIN_LOCALIZATION	299	0.544923	2.134327	0	0	0	995
GO_POSTTRANSCRIPTIONAL_REGULATION_OF_GENE_EXPRESSION	146	0.560846	2.125737	0	0	0	1360
GO_CELLULAR_CATABOLIC_PROCESS	367	0.53076	2.114962	0	0	0	1107
GO_ESTABLISHMENT_OF_LOCALIZATION_IN_CELL	399	0.528122	2.114405	0	0	0	982
GO_MACROMOLECULAR_COMPLEX_ASSEMBLY	385	0.531843	2.106329	0	0	0	992
GO_CATABOLIC_PROCESS	459	0.506621	2.015824	0	0	0	1107
GO_MRNA_PROCESSING	113	0.547266	2.006617	0	0	0	1214
GO_PURINE_CONTAINING_COMPOUND_METABOLIC_PROCESS	136	0.533903	1.998855	0	0	0	1325
GO_DNA_REPAIR	122	0.540229	1.996982	0	0	0	1604
GO_PROTEIN_LOCALIZATION	378	0.501173	1.983834	0	0	0	982
GO_COFACTOR_METABOLIC_PROCESS	108	0.544738	1.979087	0	0	0	838
GO_CHROMOSOME_ORGANIZATION	275	0.505148	1.966823	0	0	0	1300
GO_REGULATION_OF_CELLULAR_AMIDE_METABOLIC_PROCESS	101	0.533321	1.951424	0	0	0	1097
GO_NUCLEOBASE_CONTAINING_SMALL_MOLECULE_METABOLIC_PROCESS	181	0.504227	1.942229	0	0	0	1556
GO_CELLULAR_RESPONSE_TO_DNA_DAMAGE_STIMULUS	178	0.50189	1.913103	0	0	0	1671
GO_CHROMATIN_ORGANIZATION	161	0.503367	1.902382	0	0	0	1284
GO_ORGANELLE_ASSEMBLY	124	0.506962	1.869319	0	1.58E-05	0.001	687
GO_CELLULAR_AMINO_ACID_METABOLIC_PROCESS	117	0.504806	1.867412	0	1.55E-05	0.001	1899
GO_PROTEIN_COMPLEX_BIOGENESIS	281	0.473782	1.863393	0	1.52E-05	0.001	1205
GO_PROTEIN_COMPLEX_ASSEMBLY	281	0.473782	1.862466	0	1.49E-05	0.001	1205
GO_SINGLE_ORGANISM_BIOSYNTHETIC_PROCESS	396	0.466962	1.859662	0	1.47E-05	0.001	1593
GO_PROTEIN_COMPLEX_SUBUNIT_ORGANIZATION	408	0.466292	1.853259	0	1.44E-05	0.001	1305
GO_DNA_METABOLIC_PROCESS	218	0.478986	1.850817	0	1.41E-05	0.001	1671
GO_MITOTIC_CELL_CYCLE	231	0.469622	1.84132	0	1.39E-05	0.001	1907
GO_CELLULAR_COMPONENT_DISASSEMBLY	164	0.475705	1.81459	0	1.37E-05	0.001	1476
GO_OXIDATION_REDUCTION_PROCESS	262	0.458463	1.786043	0	5.35E-05	0.004	1557
GO_MITOTIC_NUCLEAR_DIVISION	106	0.485565	1.768706	0.001104972	5.26E-05	0.004	1652
GO_REGULATION_OF_MITOTIC_CELL_CYCLE	135	0.471991	1.751266	0	1.17E-04	0.009	785
GO_ORGANOPHOSPHATE_METABOLIC_PROCESS	242	0.442006	1.728894	0	1.66E-04	0.013	1244
GO_CARBOHYDRATE_DERIVATIVE_METABOLIC_PROCESS	266	0.436132	1.703204	0	2.91E-04	0.023	1112
GO_CARBOHYDRATE_METABOLIC_PROCESS	153	0.445745	1.695123	0	3.37E-04	0.027	1070
GO_CELL_CYCLE_PROCESS	311	0.428204	1.677464	0	5.00E-04	0.04	1907
GO_SMALL_MOLECULE_BIOSYNTHETIC_PROCESS	125	0.453633	1.673245	0	5.29E-04	0.043	1290
GO_REGULATION_OF_CELL_CYCLE_PHASE_TRANSITION	101	0.456878	1.666017	0	5.80E-04	0.048	996
GO_ORGANIC_ACID_METABOLIC_PROCESS	274	0.420348	1.651029	0	7.69E-04	0.064	1343
GO_POSITIVE_REGULATION_OF_PROTEOLYSIS	103	0.44511	1.642445	0.002234637	9.75E-04	0.082	1299
GO_NEGATIVE_REGULATION_OF_ORGANELLE_ORGANIZATION	100	0.451928	1.626904	0.001123596	0.001199278	0.101	1561

GO_ORGANELLE_FISSION	134	0.43191	1.623668	0.001069519	0.001249561	0.105	1907
GO_CELL_CYCLE	367	0.408626	1.623132	0	0.00125421	0.107	1907
GO_PROTEIN_CATABOLIC_PROCESS	121	0.435657	1.606525	0	0.001593909	0.135	1299
GO_PROTEIN_MODIFICATION_BY_SMALL_PROTEIN_CONJUGATION_OR_REMOVAL	161	0.419507	1.595882	0.002107482	0.001819631	0.153	996
GO_CELL_DIVISION	130	0.416515	1.575546	0.00109529	0.002566212	0.212	1652
GO_REGULATION_OF_DEFENSE_RESPONSE	178	0.410437	1.574849	0.002079002	0.002574058	0.214	1157
GO_PROTEIN_UBIQUITINATION	120	0.425096	1.572585	0.003282276	0.00264328	0.221	996
GO_REGULATION_OF_CELL_CYCLE_PROCESS	154	0.41452	1.569128	0	0.002741294	0.233	1649
GO_PROTEIN_OLIGOMERIZATION	102	0.423146	1.562743	0.006779661	0.003136027	0.267	921
GO_NEGATIVE_REGULATION_OF_CELL_CYCLE	114	0.422311	1.554896	0.003271538	0.003601891	0.304	1024
GO_CELLULAR_RESPONSE_TO_STRESS	389	0.385856	1.547704	0	0.004055385	0.338	1515
GO_REGULATION_OF_HOMEOSTATIC_PROCESS	102	0.422212	1.540451	0.003333333	0.004545215	0.372	1107
GO_SINGLE_ORGANISM_CATABOLIC_PROCESS	224	0.392652	1.532081	0.002042901	0.005091365	0.417	1095
GO_CARBOHYDRATE_DERIVATIVE_BIOSYNTHETIC_PROCESS	141	0.407704	1.524744	0.004352557	0.005585711	0.449	1109
GO_POSITIVE_REGULATION_OF_IMMUNE_RESPONSE	115	0.405638	1.505958	0.006571741	0.007295628	0.544	1121
GO_REGULATION_OF_PROTEOLYSIS	178	0.3932	1.504369	0.001058201	0.00740411	0.557	1569
GO_REGULATION_OF_CELL_CYCLE	257	0.3858	1.502305	0.001021451	0.0075278	0.564	801
GO_NITROGEN_COMPOUND_TRANSPORT	125	0.402294	1.501637	0.004347826	0.007522587	0.57	1607
GO_TRANSMEMBRANE_TRANSPORT	267	0.380186	1.490516	0	0.009019404	0.642	1462
GO_PHOSPHORYLATION	309	0.374699	1.481035	0	0.010484532	0.709	1189
GO_REGULATION_OF_ORGANELLE_ORGANIZATION	267	0.376271	1.479554	0	0.010508183	0.716	1502
GO_REGULATION_OF_MULTI_ORGANISM_PROCESS	111	0.403196	1.478487	0.007650273	0.010479307	0.72	1157
GO_CHROMATIN_MODIFICATION	113	0.399877	1.467941	0.009814613	0.011989916	0.768	1284
GO_RESPONSE_TO_BIOTIC_STIMULUS	198	0.382099	1.467082	0.004132231	0.012056059	0.772	737
GO_PHOSPHATE_CONTAINING_COMPOUND_METABOLIC_PROCESS	495	0.366656	1.466789	0	0.011954261	0.772	1302
GO_ORGANOPHOSPHATE_BIOSYNTHETIC_PROCESS	119	0.395591	1.461109	0.01191766	0.012850282	0.798	1325
GO_POSITIVE_REGULATION_OF_ORGANELLE_ORGANIZATION	137	0.38812	1.454418	0.009615385	0.014086581	0.833	733
GO_REGULATION_OF_CATABOLIC_PROCESS	166	0.379629	1.448762	0.007352941	0.015224588	0.857	1272
GO_HOMEOSTATIC_PROCESS	296	0.364691	1.446102	0.003033367	0.015678735	0.873	1361
GO_MONOVALENT_INORGANIC_CATION_TRANSPORT	104	0.389211	1.429351	0.01664817	0.019286709	0.915	888
GO_MONOCARBOXYLIC_ACID_METABOLIC_PROCESS	121	0.382893	1.41437	0.017316017	0.023713283	0.954	1314
GO_RESPONSE_TO_CYTOKINE	167	0.369178	1.404393	0.017875921	0.026875915	0.973	996
GO_CELLULAR_RESPONSE_TO_CYTOKINE_STIMULUS	146	0.370768	1.392125	0.021321962	0.031344105	0.983	996
GO_ION_TRANSMEMBRANE_TRANSPORT	191	0.360566	1.388514	0.009365245	0.0325544	0.987	1462
GO_REGULATION_OF_RESPONSE_TO_STRESS	332	0.347386	1.38637	0.00404449	0.033335894	0.988	1166
GO_CATION_TRANSPORT	173	0.353819	1.359822	0.027139874	0.046310864	0.998	1377
GO_POSITIVE_REGULATION_OF_ESTABLISHMENT_OF_PROTEIN_LOCALIZATION	108	0.371296	1.346955	0.039955605	0.053550836	1	965
GO_MICROTUBULE_BASED_PROCESS	106	0.367482	1.342327	0.057483733	0.056242466	1	1389
GO_DEFENSE_RESPONSE_TO_OTHER_ORGANISM	119	0.365305	1.341241	0.04535637	0.056480832	1	863
GO_REGULATION_OF_CELLULAR_PROTEIN_LOCALIZATION	121	0.359584	1.328656	0.04408602	0.06505669	1	939
GO_DEFENSE_RESPONSE	249	0.33736	1.323887	0.01724138	0.067682944	1	1343
GO_REGULATION_OF_PEPTIDASE_ACTIVITY	101	0.359894	1.32094	0.05574136	0.069483995	1	1556
GO_CELLULAR_HOMEOSTASIS	139	0.353746	1.31739	0.057446808	0.07169836	1	1513
GO_CELL_DEATH	234	0.336734	1.315429	0.02639594	0.07265542	1	1561
GO_INORGANIC_ION_TRANSMEMBRANE_TRANSPORT	132	0.358517	1.313283	0.046637744	0.07378419	1	888
GO_CHEMICAL_HOMEOSTASIS	176	0.339943	1.310923	0.043704476	0.07522082	1	1354
GO_NEGATIVE_REGULATION_OF_PROTEIN_MODIFICATION_PROCESS	155	0.347388	1.310244	0.040837698	0.07510612	1	1187
GO_NEGATIVE_REGULATION_OF_PROTEIN_METABOLIC_PROCESS	255	0.335403	1.309043	0.022403259	0.075386904	1	1499
GO_IMMUNE_SYSTEM_PROCESS	420	0.325813	1.298911	0.007021063	0.083868966	1	1154
GO_SIGNAL_TRANSDUCTION_BY_PROTEIN_PHOSPHORYLATION	101	0.355822	1.297863	0.08379272	0.08417071	1	1015
GO_ION_TRANSPORT	293	0.331202	1.294547	0.016260162	0.08687854	1	1473
GO_NEGATIVE_REGULATION_OF_CELL_DEATH	225	0.329163	1.277742	0.041025642	0.10293648	1	1272
GO_REGULATION_OF_CYTOPLASMIC_TRANSPORT	101	0.348557	1.265052	0.10421286	0.116587386	1	939
GO_REGULATION_OF_INTRACELLULAR_TRANSPORT	121	0.343198	1.261864	0.09415584	0.11957359	1	939
GO_CYTOKINE_MEDIATED_SIGNALING_PATHWAY	102	0.351122	1.261234	0.1053787	0.1194007	1	996
GO_POSITIVE_REGULATION_OF_IMMUNE_SYSTEM_PROCESS	185	0.330325	1.261104	0.0524109	0.118584275	1	1130
GO_RESPONSE_TO_DRUG	111	0.344848	1.253468	0.11231101	0.12699348	1	1177
GO_REGULATION_OF_CELLULAR_RESPONSE_TO_STRESS	154	0.333336	1.253011	0.09243698	0.12655847	1	1515
GO_REGULATION_OF_IMMUNE_RESPONSE	162	0.325087	1.242373	0.096092924	0.1399274	1	1270
GO_ION_HOMEOSTASIS	115	0.339907	1.23522	0.12864865	0.1492586	1	1473
GO_REGULATION_OF_IMMUNE_SYSTEM_PROCESS	296	0.316714	1.23385	0.05995935	0.15014121	1	1157
GO_PROTEOLYSIS	252	0.31435	1.233264	0.068297654	0.1499738	1	1299
GO_CELLULAR_CHEMICAL_HOMEOSTASIS	108	0.335424	1.22937	0.1254162	0.15461284	1	1513
GO_PEPTIDYL_AMINO_ACID_MODIFICATION	186	0.317703	1.212881	0.0966736	0.17964083	1	1532
GO_CELLULAR_RESPONSE_TO_ORGANIC_SUBSTANCE	424	0.301356	1.196669	0.063253015	0.20678161	1	970
GO_REGULATION_OF_RESPONSE_TO_EXTERNAL_STIMULUS	191	0.310576	1.195469	0.122384936	0.20748806	1	1166
GO_NEGATIVE_REGULATION_OF_GENE_EXPRESSION	329	0.301056	1.195365	0.0755287	0.20619245	1	1107
GO_REGULATION_OF_CELL_DEATH	346	0.299389	1.184476	0.09889001	0.22557256	1	1501
GO_POSITIVE_REGULATION_OF_CELLULAR_COMPONENT_ORGANIZATION	246	0.297572	1.167651	0.1459404	0.25803167	1	733
GO_POSITIVE_REGULATION_OF_PROTEIN_METABOLIC_PROCESS	339	0.294047	1.166703	0.10574018	0.25825763	1	1272
GO_SECRETION	109	0.314946	1.157935	0.21492206	0.2756556	1	1214
GO_NEGATIVE_REGULATION_OF_NITROGEN_COMPOUND_METABOLIC_PROCESS	327	0.28565	1.139606	0.15704153	0.31649077	1	1092
GO_POSITIVE_REGULATION_OF_PROTEIN_MODIFICATION_PROCESS	258	0.287045	1.122534	0.22312373	0.3572759	1	1249
GO_REGULATION_OF_PROTEIN_LOCALIZATION	194	0.290528	1.118301	0.25420168	0.3660635	1	965
GO_NEGATIVE_REGULATION_OF_CATALYTIC_ACTIVITY	194	0.287101	1.115842	0.25129804	0.3699083	1	1174
GO_NEGATIVE_REGULATION_OF_CELLULAR_COMPONENT_ORGANIZATION	150	0.292268	1.112185	0.25638297	0.3773165	1	1473
GO_POSITIVE_REGULATION_OF_CELL_DEATH	131	0.297123	1.107578	0.27105832	0.38700664	1	709
GO_IMMUNE_RESPONSE	205	0.288668	1.105191	0.24896695	0.39079678	1	970
GO_POSITIVE_REGULATION_OF_TRANSFERASE_ACTIVITY	161	0.289461	1.101189	0.2857143	0.39852563	1	1342
GO_MULTI_ORGANISM_REPRODUCTIVE_PROCESS	172	0.289392	1.094896	0.3018066	0.41364473	1	1238
GO_INNATE_IMMUNE_RESPONSE	121	0.295081	1.082609	0.35455543	0.44649518	1	952
GO_POSITIVE_REGULATION_OF_GENE_EXPRESSION	373	0.274299	1.080267	0.2765531	0.4501328	1	1187
GO_REGULATION_OF_BODY_FLUID_LEVELS	111	0.29042	1.071598	0.37045205	0.47177187	1	1242
GO_REGULATION_OF_GROWTH	127	0.283979	1.062307	0.3664865	0.49560177	1	709
GO_RESPONSE_TO_EXTERNAL_STIMULUS	389	0.262363	1.039161	0.3926648	0.56100374	1	1354
GO_NEGATIVE_REGULATION_OF_CELL_COMMUNICATION	276	0.265286	1.035444	0.38735983	0.5689398	1	1280
GO_NEGATIVE_REGULATION_OF_RESPONSE_TO_STIMULUS	304	0.261841	1.035361	0.3892821	0.56557316	1	1270
GO_REGULATION_OF_TRANSFERASE_ACTIVITY	228	0.264253	1.030675	0.41188523	0.5761304	1	1145
GO_POSITIVE_REGULATION_OF_TRANSPORT	179	0.266834	1.019907	0.45089757	0.60575503	1	846
GO_POSITIVE_REGULATION_OF_BIOSYNTHETIC_PROCESS	374	0.253106	0.997927	0.49898785	0.67011005	1	1276
GO_RESPONSE_TO_HORMONE	212	0.255684	0.996171	0.5	0.67104274	1	1272
GO_REGULATION_OF_CELLULAR_LOCALIZATION	251	0.256283	0.991516	0.5274949	0.6813301	1	1280
GO_PROTEIN_PHOSPHORYLATION	221	0.2552	0.991358	0.50988555	0.6776075	1	1186
GO_REGULATION_OF_CYTOSKELETON_ORGANIZATION	108	0.273047	0.98461	0.5065076	0.6941721	1	1467
GO_RESPONSE_TO_OXYGEN_CONTAINING_COMPOUND	315	0.246968	0.97907	0.55959594	0.70700943	1	1272
GO_SEXUAL_REPRODUCTION	134	0.262011	0.976953	0.5210356	0.70900494	1	1300

GO_RESPONSE_TO_ENDOGENOUS_STIMULUS	332	0.246932	0.975596	0.5646465	0.7087918	1	1272
GO_CELL_PROLIFERATION	198	0.253359	0.974211	0.56666666	0.70873874	1	1361
GO_METAL_ION_TRANSPORT	112	0.264471	0.9737	0.5358324	0.706019	1	1377
GO_CELLULAR_RESPONSE_TO_HORMONE_STIMULUS	124	0.257597	0.969056	0.5465368	0.7153831	1	845
GO_NEGATIVE_REGULATION_OF_MOLECULAR_FUNCTION	243	0.247999	0.968731	0.5746653	0.71211493	1	1174
GO_REGULATION_OF_PROTEIN_MODIFICATION_PROCESS	379	0.242814	0.961524	0.6002014	0.72875494	1	1187
GO_REPRODUCTION	285	0.243622	0.957681	0.6125126	0.73539054	1	1195
GO_REGULATION_OF_CYTOKINE_PRODUCTION	113	0.258255	0.957477	0.55969334	0.73176396	1	736
GO_ANION_TRANSPORT	124	0.257381	0.949585	0.58502674	0.74912953	1	1689
GO_POSITIVE_REGULATION_OF_CATALYTIC_ACTIVITY	322	0.232912	0.925661	0.6936299	0.8097486	1	1362
GO_CELLULAR_RESPONSE_TO_ENDOGENOUS_STIMULUS	228	0.241005	0.925474	0.6819572	0.805746	1	845
GO_WOUND_HEALING	101	0.253794	0.913411	0.6431718	0.8320983	1	1268
GO_RESPONSE_TO_LIPID	199	0.234005	0.909417	0.7016632	0.83757323	1	1341
GO_RESPONSE_TO_GROWTH_FACTOR	113	0.24756	0.906966	0.6596685	0.8391173	1	1173
GO_POSITIVE_REGULATION_OF_CELL_COMMUNICATION	321	0.228948	0.90607	0.7376388	0.8364424	1	1345
GO_REGULATION_OF_CELL_PROLIFERATION	329	0.230002	0.903242	0.76649743	0.8385158	1	1173
GO_RESPONSE_TO_ABIOTIC_STIMULUS	245	0.230103	0.897766	0.7336066	0.8469076	1	1662
GO_INTRACELLULAR_SIGNAL_TRANSDUCTION	331	0.227579	0.897463	0.7543147	0.84294486	1	1272
GO_ORGANIC_HYDROXY_COMPOUND_METABOLIC_PROCESS	115	0.244582	0.897008	0.67099565	0.83946145	1	1090
GO_NEGATIVE_REGULATION_OF_CELL_PROLIFERATION	143	0.237784	0.892033	0.7009646	0.846208	1	574
GO_POSITIVE_REGULATION_OF_MOLECULAR_FUNCTION	381	0.221752	0.884576	0.8062249	0.8581251	1	1362
GO_POSITIVE_REGULATION_OF_RESPONSE_TO_STIMULUS	387	0.221113	0.883995	0.81287724	0.8548515	1	1345
GO_MULTICELLULAR_ORGANISM_REPRODUCTION	140	0.236246	0.882211	0.71905273	0.85446286	1	1300
GO_RESPONSE_TO_INORGANIC_SUBSTANCE	128	0.236526	0.880977	0.70354456	0.8528318	1	1655
GO_REGULATION_OF_SYSTEM_PROCESS	100	0.243226	0.87594	0.73245615	0.85895944	1	709
GO_RESPONSE_TO_NITROGEN_COMPOUND	192	0.225949	0.870927	0.771134	0.86478573	1	1341
GO_CELLULAR_RESPONSE_TO_OXYGEN_CONTAINING_COMPOUND	173	0.225161	0.858326	0.7989474	0.88489217	1	1242
GO_EMBRYO_DEVELOPMENT	205	0.221189	0.85377	0.803719	0.88890034	1	634
GO_REGULATION_OF_TRANSPORT	346	0.209082	0.824675	0.9089069	0.93560725	1	846
GO_BEHAVIOR	100	0.226411	0.822019	0.8008801	0.9350677	1	1224
GO_RESPONSE_TO_ORGANIC_CYCLIC_COMPOUND	209	0.21096	0.812163	0.8661088	0.9458395	1	1341
GO_CYTOSKELETON_ORGANIZATION	178	0.212853	0.809559	0.8793651	0.945124	1	1389
GO_IMMUNE_SYSTEM_DEVELOPMENT	144	0.212144	0.805255	0.85287845	0.94673455	1	1145
GO_RESPONSE_TO_WOUNDING	120	0.217228	0.802322	0.85927504	0.9457917	1	1268
GO_POSITIVE_REGULATION_OF_CELL_PROLIFERATION	184	0.204241	0.787808	0.8960499	0.96087146	1	1287
GO_NEGATIVE_REGULATION_OF_PHOSPHATE_METABOLIC_PROCESS	109	0.209041	0.772312	0.8659341	0.9752525	1	879
GO_NEUROLOGICAL_SYSTEM_PROCESS	136	0.205576	0.767835	0.897937	0.97550917	1	1174
GO_REGULATION_OF_INTRACELLULAR_SIGNAL_TRANSDUCTION	333	0.193953	0.763329	0.9575329	0.9756531	1	1361
GO_CELLULAR_RESPONSE_TO_ORGANIC_CYCLIC_COMPOUND	105	0.210154	0.760895	0.88606197	0.9736517	1	942
GO_CELLULAR_RESPONSE_TO_NITROGEN_COMPOUND	110	0.205213	0.760706	0.8785558	0.969125	1	847
GO_NEGATIVE_REGULATION_OF_PHOSPHORUS_METABOLIC_PROCESS	109	0.209041	0.756329	0.8952063	0.9687748	1	879
GO_CELLULAR_RESPONSE_TO_LIPID	102	0.206975	0.754899	0.9101996	0.9655003	1	1224
GO_IMMUNE_EFFECTOR_PROCESS	100	0.205886	0.745272	0.9029444	0.9700193	1	1281
GO_LIPID_METABOLIC_PROCESS	232	0.191797	0.74479	0.9460834	0.96580386	1	1197
GO_RESPONSE_TO_STEROID_HORMONE	120	0.19838	0.73688	0.92373794	0.9681935	1	1409
GO_REGULATION_OF_MAPK_CASCADE	137	0.19502	0.724988	0.92432433	0.9726859	1	1361
GO_REGULATION_OF_PHOSPHORUS_METABOLIC_PROCESS	337	0.184707	0.724562	0.9838872	0.9683942	1	1182
GO_EMBRYO_DEVELOPMENT_ENDING_IN_BIRTH_OR_EGG_HATCHING	145	0.189491	0.704492	0.952739	0.9771611	1	634
GO_CELLULAR_LIPID_METABOLIC_PROCESS	183	0.182892	0.702946	0.97196263	0.97347194	1	1197
GO_HEAD_DEVELOPMENT	151	0.172531	0.649194	0.9818182	0.99159676	1	1340
GO_LIPID_BIOSYNTHETIC_PROCESS	117	0.169936	0.628625	0.98468274	0.9918613	1	1290
GO_CELL_MORPHOGENESIS_INVOLVED_IN_DIFFERENTIATION	114	-0.39413	-1.86522	0	0	0	1696
GO_HEART_DEVELOPMENT	112	-0.35967	-1.75831	0	0	0	771
GO_REGULATION_OF_NERVOUS_SYSTEM_DEVELOPMENT	150	-0.33563	-1.75734	0	0	0	788
GO_MUSCLE_STRUCTURE_DEVELOPMENT	103	-0.37071	-1.72988	0	0	0	1191
GO_NEURON_DEVELOPMENT	120	-0.34606	-1.70953	0	0	0	801
GO_CELL_CELL_ADHESION	163	-0.33279	-1.69985	0	9.23E-04	0.001	1107
GO_VASCULATURE_DEVELOPMENT	122	-0.33863	-1.67224	0	0.003154845	0.004	1161
GO_REGULATION_OF_CELL_DEVELOPMENT	172	-0.318	-1.64039	0	0.00276049	0.004	1423
GO_CELLULAR_COMPONENT_MORPHOGENESIS	180	-0.32456	-1.63927	0	0.002453768	0.004	837
GO_CIRCULATORY_SYSTEM_DEVELOPMENT	197	-0.30897	-1.62311	0	0.002208391	0.004	1110
GO_CARDIOVASCULAR_SYSTEM_DEVELOPMENT	197	-0.30897	-1.60704	0	0.002352126	0.005	1110
GO_NEGATIVE_REGULATION_OF_DEVELOPMENTAL_PROCESS	161	-0.31324	-1.58958	0	0.002471905	0.006	788
GO_REGULATION_OF_NEURON_DIFFERENTIATION	114	-0.32052	-1.56534	0	0.002866374	0.008	1423
GO_NEGATIVE_REGULATION_OF_CELL_DIFFERENTIATION	127	-0.31762	-1.55592	0	0.002661633	0.008	788
GO_REGULATION_OF_CELLULAR_COMPONENT_MOVEMENT	168	-0.29468	-1.54315	0.020408163	0.003762033	0.012	824
GO_NEURON_DIFFERENTIATION	159	-0.29377	-1.53442	0	0.003826906	0.013	801
GO_REGULATION_OF_CELL_MORPHOGENESIS	102	-0.32329	-1.52375	0.010638298	0.004591486	0.016	1407
GO_CELL_CELL_SIGNALING	139	-0.30815	-1.51108	0	0.005577804	0.021	946
GO_REGULATION_OF_GTPASE_ACTIVITY	125	-0.30824	-1.50903	0	0.00579947	0.023	1176
GO_BIOLOGICAL_ADHESION	253	-0.276	-1.48784	0	0.008647906	0.037	961
GO_CELL_DEVELOPMENT	288	-0.27066	-1.47639	0	0.009868876	0.043	777
GO_REGULATION_OF_CELL_DIFFERENTIATION	306	-0.26714	-1.47292	0	0.009420291	0.043	818
GO_EPITHELIAL_CELL_DIFFERENTIATION	107	-0.30681	-1.46623	0	0.009408037	0.045	1446
GO_TISSUE_MORPHOGENESIS	125	-0.29331	-1.44316	0	0.012969665	0.062	1110
GO_EPITHELIUM_DEVELOPMENT	218	-0.26833	-1.41887	0	0.018584194	0.09	776
GO_TUBE_DEVELOPMENT	138	-0.28522	-1.4107	0	0.019066188	0.097	771
GO_CELL_PROJECTION_ORGANIZATION	149	-0.28202	-1.398	0.018518519	0.021278182	0.111	917
GO_TISSUE_DEVELOPMENT	331	-0.24354	-1.39528	0	0.02075201	0.112	776
GO_NEUROGENESIS	271	-0.26641	-1.39385	0	0.020646794	0.114	801
GO_CELL_PART_MORPHOGENESIS	111	-0.2902	-1.39219	0.009345794	0.020423329	0.117	917
GO_REPRODUCTIVE_SYSTEM_DEVELOPMENT	114	-0.27912	-1.36597	0	0.027891723	0.16	966
GO_ORGAN_MORPHOGENESIS	186	-0.26613	-1.35713	0	0.030210063	0.174	1385
GO_REGULATION_OF_CELL_ADHESION	120	-0.28505	-1.34426	0.034883723	0.033722	0.198	934
GO_LOCALIZATION_OF_CELL	168	-0.25884	-1.34284	0	0.033290338	0.201	738
GO_POSITIVE_REGULATION_OF_KINASE_ACTIVITY	109	-0.2731	-1.34217	0.035714287	0.032497425	0.201	760
GO_REGULATION_OF_CELL_PROJECTION_ORGANIZATION	102	-0.27742	-1.33359	0.027272727	0.03334462	0.212	747
GO_CELL_MOTILITY	168	-0.25884	-1.31727	0.03448270	0.038299926	0.247	738
GO_POSITIVE_REGULATION_OF_CELL_DIFFERENTIATION	173	-0.25182	-1.31177	0	0.039034426	0.257	925
GO_POSITIVE_REGULATION_OF_DEVELOPMENTAL_PROCESS	247	-0.24117	-1.29851	0	0.044855185	0.299	771
GO_REGULATION_OF_TRANSCRIPTION_FROM_RNA_POLYMERASE_II_PROMOTER	316	-0.2315	-1.27543	0	0.057343837	0.38	801
GO_LOCOMOTION	219	-0.24907	-1.27068	0.071428575	0.059017308	0.397	738
GO_ANATOMICAL_STRUCTURE_FORMATION_INVOLVED_IN_MORPHOGENESIS	218	-0.23934	-1.23642	0	0.08472515	0.517	875
GO_POSITIVE_REGULATION_OF_TRANSCRIPTION_FROM_RNA_POLYMERASE_II_PROMOTER	187	-0.24109	-1.2297	0.06382979	0.09027269	0.549	1065
GO_REGULATION_OF_PROTEIN_SERINE_THREONINE_KINASE_ACTIVITY	110	-0.25377	-1.22885	0.08421053	0.08848173	0.549	840
GO_GROWTH	112	-0.25202	-1.2126	0.078947365	0.10327828	0.614	801

GO_MOVEMENT_OF_CELL_OR_SUBCELLULAR_COMPONENT	249	-0.22345	-1.20416	0	0.111623555	0.653	738
GO_DEVELOPMENTAL_PROCESS_INVOLVED_IN_REPRODUCTION	148	-0.2374	-1.17725	0.03773585	0.14585681	0.759	743
GO_EMBRYONIC_MORPHOGENESIS	108	-0.24895	-1.16875	0.11764706	0.15807666	0.792	1110
GO_NEGATIVE_REGULATION_OF_TRANSCRIPTION_FROM_RNA_POLYMERASE_II_PROMOTER	154	-0.23056	-1.16295	0.05357143	0.16557813	0.814	818
GO_POSITIVE_REGULATION_OF_LOCOMOTION	100	-0.2495	-1.16254	0.14130434	0.16327631	0.816	803
GO_REGULATION_OF_ANATOMICAL_STRUCTURE_MORPHOGENESIS	226	-0.21832	-1.1455	0.029411765	0.18969348	0.871	819
GO_REGULATION_OF_KINASE_ACTIVITY	173	-0.21863	-1.13159	0.11627907	0.21238305	0.902	811
GO_TRANSCRIPTION_FROM_RNA_POLYMERASE_II_PROMOTER	136	-0.22738	-1.12709	0.18421052	0.21895537	0.913	290
GO_REGULATION_OF_SECRETION	123	-0.22433	-1.1117	0.25	0.24741618	0.932	559
GO_POSITIVE_REGULATION_OF_PHOSPHORUS_METABOLIC_PROCESS	210	-0.21555	-1.10598	0.14705883	0.25606164	0.94	771
GO_ENZYME_LINKED_RECEPTOR_PROTEIN_SIGNALING_PATHWAY	151	-0.21387	-1.09487	0.17142858	0.27780008	0.956	878
GO_NEGATIVE_REGULATION_OF_MULTICELLULAR_ORGANISMAL_PROCESS	187	-0.21135	-1.09058	0.21428572	0.28417277	0.963	361
GO_POSITIVE_REGULATION_OF_PHOSPHATE_METABOLIC_PROCESS	210	-0.21555	-1.08534	0.21276596	0.29372594	0.969	771
GO_REGULATION_OF_MULTICELLULAR_ORGANISMAL_DEVELOPMENT	361	-0.19497	-1.08287	0.1	0.29523197	0.971	818
GO_SYSTEM_PROCESS	246	-0.19522	-1.08173	0.2413793	0.2927138	0.974	878
GO_POSITIVE_REGULATION_OF_INTRACELLULAR_SIGNAL_TRANSDUCTION	181	-0.20619	-1.06573	0.3	0.33244786	0.984	760
GO_REGULATION_OF_HYDROLASE_ACTIVITY	272	-0.18995	-1.03223	0.25	0.43106574	0.99	516
GO_SKELETAL_SYSTEM_DEVELOPMENT	102	-0.21743	-1.03106	0.45360824	0.4284399	0.99	1279
GO_GLAND_DEVELOPMENT	110	-0.21487	-1.02583	0.443038	0.43989602	0.993	925
GO_POSITIVE_REGULATION_OF_MULTICELLULAR_ORGANISMAL_PROCESS	293	-0.18998	-1.02276	0.4117647	0.44255456	0.994	803
GO_REGULATION_OF_ION_TRANSPORT	115	-0.19875	-1.00335	0.4945055	0.4989454	0.999	511
GO_VESICLE_MEDIATED_TRANSPORT	175	-0.19684	-0.99765	0.4473684	0.5092677	0.999	611
GO_TRANSMEMBRANE_RECEPTOR_PROTEIN_TYROSINE_KINASE_SIGNALING_PATHWAY	113	-0.20067	-0.98096	0.5205479	0.5584068	1	754
GO_REGULATION_OF_CELLULAR_COMPONENT_BIOGENESIS	145	-0.19242	-0.96777	0.62903225	0.6000094	1	824
GO_POSITIVE_REGULATION_OF_HYDROLASE_ACTIVITY	175	-0.1755	-0.88736	0.82978725	0.8227005	1	497
GO_CENTRAL_NERVOUS_SYSTEM_DEVELOPMENT	179	-0.17213	-0.88714	0.9	0.81150895	1	1385
GO_CELL_ACTIVATION	108	-0.17696	-0.84237	0.9230769	0.89131063	1	803

Supplementary Table S3 – Summary of MYC and Breast cancer GSEA results

Differentially expressed genes in 10A.PM tumors were analyzed by GSEA using MYC and breast cancer gene sets.

MYC GENE SETS				
NAME	**SIZE**	**NES**	**FDR q-val**	**RANK AT MAX**
BILD_MYC_ONCOGENIC_SIGNATURE	117	1.927	0.000	1505
CACGTG_V$MYC_Q2	287	2.032	0.000	1490
COLLER_MYC_TARGETS_UP	22	1.986	0.000	1117
COLLER_MYC_TARGETS_DN	4	-1.526	0.036	594
DANG_BOUND_BY_MYC	368	2.248	0.000	1606
DANG_MYC_TARGETS_UP	95	2.252	0.000	1339
DANG_MYC_TARGETS_DN	8	-0.810	0.763	497
DANG_REGULATED_BY_MYC_UP	42	2.029	0.000	1676
DANG_REGULATED_BY_MYC_DN	54	1.107	0.318	715
FERNANDEZ_BOUND_BY_MYC	57	1.921	0.000	1327
HALLMARK_MYC_TARGETS_V1	131	2.501	0.000	1126
HALLMARK_MYC_TARGETS_V2	50	2.198	0.000	1553
MYC_UP.V1_UP	91	2.193	0.000	1560
MYC_UP.V1_DN	46	-2.124	0.000	1216
SCHLOSSER_MYC_TARGETS_AND_SERUM_RESPONSE_DN	34	2.172	0.000	1088
SCHLOSSER_MYC_TARGETS_AND_SERUM_RESPONSE_UP	29	1.942	0.000	1109
SCHUHMACHER_MYC_TARGETS_UP	61	2.112	0.000	1623
SCHUHMACHER_MYC_TARGETS_DN	3	0.613	0.949	1193

BREAST CANCER GENE SETS				
NAME	**SIZE**	**NES**	**FDR q-val**	**RANK AT MAX**
POOLA_INVASIVE_BREAST_CANCER_UP	82	1.482	0.041	2021
POOLA_INVASIVE_BREAST_CANCER_DN	40	0.629	0.968	1198
SMID_BREAST_CANCER_BASAL_UP	226	1.138	0.733	1241
SMID_BREAST_CANCER_BASAL_DN	158	-1.083	0.307	738
SMID_BREAST_CANCER_ERBB2_UP	33	1.010	0.694	826
SMID_BREAST_CANCER_LUMINAL_B_UP	37	0.653	0.960	381
SMID_BREAST_CANCER_LUMINAL_B_DN	157	-1.281	0.189	648
SMID_BREAST_CANCER_NORMAL_LIKE_UP	123	-1.512	0.084	902
SMID_BREAST_CANCER_LUMINAL_A_UP	27	-1.230	0.173	250
TURASHVILI_BREAST_DUCTAL_CARCINOMA_VS_DUCTAL_NORMAL_DN	70	-2.007	0.000	694
ZUCCHI_METASTASIS_UP	18	1.903	0.002	1214
ZUCCHI_METASTASIS_DN	8	1.565	0.019	234
VANTVEER_BREAST_CANCER_POOR_PROGNOSIS	14	1.400	0.085	1970