

The clinical and biological characteristics of NUP98-KDM5A pediatric acute myeloid leukemia

Sanne Noort,^{1,*} Priscilla Wander,^{1,2,*} Todd A. Alonzo,^{3,4} Jenny Smith,⁵ Rhonda E. Ries,⁵ Robert B. Gerbing,³ M. Emmy M. Dolman,² Franco Locatelli,⁶ Dirk Reinhardt,⁷ Andre Baruchel,⁸ Jan Stary,⁹ Jan J. Molenaar,² Ronald W. Stam,² Marry M. van den Heuvel-Eibrink,^{1,2} C. Michel Zwaan^{1,2,10} and Soheil Meshinchi^{5,11}

¹Department of Pediatric Oncology/Hematology, Erasmus MC-Sophia Children's Hospital Rotterdam, the Netherlands; ²Princess Máxima Center for Pediatric Oncology, Utrecht, the Netherlands; ³Children's Oncology Group, Monrovia, CA, USA; ⁴Keck School of Medicine, University of Southern California, Los Angeles, CA, USA; ⁵Fred Hutchinson Cancer Research Center, Seattle, WA, USA; ⁶IRCCS Ospedale Bambino Gesù, Sapienza, University of Rome, Rome, Italy; ⁷AML-BFM Study Group, Pediatric Hematology and Oncology, Essen, Germany; ⁸Pediatric Hematology-Immunology Department, University Hospital Robert Debré and Paris Diderot University, Paris, France; ⁹Czech Pediatric Hematology/Oncology (CPH), University Hospital Motol and Charles University, Prague, Czech Republic; ¹⁰Dutch Childhood Oncology Group (DCOG), The Hague, the Netherlands and ¹¹Department of Pediatrics, Seattle Children's Hospital, University of Washington, Seattle, WA, USA.

*SN and PW contributed equally as co-first authors.

Correspondence: SOHEIL MESHINCHI - smeshinc@fhcrc.org

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Supplemental material

Supplemental material and methods

Patients

The study comprised COG and European patients. The COG cohort included 2003 de novo patients from COG trials AAML03P1, AAML0531 and AAML1031¹. Patients with *FLT3*/ITD high allelic ratio from AAML1031 were excluded due to potentially enrolling onto the Phase I sorafenib treatment arm, which remained under the purview of the COG Data Safety Monitoring Committee and thus, were not analyzed. The European cohort consisted of 343 pediatric AML patients from AIEOP (Associazione Italiana di Ematologia e Oncologia Pediatrica), BFM (Berlin-Frankfurt-Münster), CPH (Czech Pediatric Hematology Working Group), DCOG (Dutch Childhood Oncology Group) and LAME (Leucémie Aiguë Myéloblastique Enfant), previously described by Balgobind *et al*². Patients included in this study were diagnosed between 1995 and 2017. *NUP98-KDM5A* rearrangements, and other rearrangements or mutations, were detected either by paired-end RNA sequencing, whole genome sequencing or RT-PCR, as previously described³. Patients with FAB M3 AML were excluded from this study. Flow cytometry-based minimal residual disease (MRD) data was obtained for patients in the COG trials only.

Gene expression analysis

Data of 1035 patients from the COG AAML1031 trial were utilized for gene expression analysis using RNAseq data. Fractional counts were normalized to trimmed mean of m-values and counts per million mapped reads (CPM). The normalized counts were log2 transformed and filtered for genes with at least 1 CPM in 5% of samples. For hierarchical clustering, the

relative level of expression per gene in each sample was determined by mean centering the expression values, using the geometric mean. Pearson correlation coefficients were employed as a measure of dissimilarity with the ward.D2 linkage algorithm was implemented in the R statistical programming environment (R v.3.4.0) ⁴. Differential expression analysis was completed using Limma v3.32.5 R package. Genes with absolute log₂ fold-change >1 and Benjamini-Hochberg adjusted p-values <0.05 were retained. Principal coordinate analysis (classical multidimensional scaling) was completed with variance stabilized transformed counts. The transformed counts were then used in a linear metric multidimensional scaling with a Bray-Curtis dissimilarity matrix using the Vegan v.2.4-3 R package.

Gene-set enrichment analysis was completed using the GAGE v2.30.0 R package with gene sets from MSigDB (<http://software.broadinstitute.org/gsea/msigdb>) and the KEGG pathway databases. Connectivity mapping was performed using the online webtool from Broad institute, <https://clue.io>⁵. A query was performed using the 90th percentile absolute log fold change of the differentially expressed genes in either *NUP98-KDM5A* or *NUP98-NSD1* rearranged AML.

Cell line and primary material

The AMKL cell line, CHRF-288-11, carrying the *NUP98-KDM5A* translocation, was a kind gift from Dr. Gruber's lab, St. Jude Children's Hospital (Memphis, TN, USA) (suppl. figure 1). Cells were maintained in RPMI-1640 medium, supplemented with 10% fetal calf serum, 100 IU/ml Penicillin Streptomycin, and 0.125 µg/ml Amphotericin B (Life Technologies) at 37°C under 5% CO₂ atmosphere. The identity of the cell line was routinely verified by DNA fingerprinting.

Viable cells from primary AML patients were used for drug screening and validation, and were processed and cultured as described previously ⁶. Viable cells of historic patients with

NUP98-KDM5A or *NUP98-NSD1* AML were obtained from the DCOG cell-bank. All leukemic samples used for drug testing contained >80% blasts, as validated by May-Grunwald-Giemsa (Merck, Darmstadt, Germany) stained cytopspins.

Drug library screening and validation

Primary AML cells and the CHRF-288-11 cell line were screened on the following commercially available drug libraries: Prestwick Chemical library (Prestwick Chemical, France), anti-neoplastic sequoia (Sequoia Research Products, United Kingdom), Epigenetics library (Enzo Life Sciences, Belgium), Epigenetics screening library (Cayman Chemical, MI, USA), Spectrum collection (Microsource, CT, USA) and the Cell cycle/DNA Damage compound library (MedChem Express) (suppl. table 1).

Primary AML cells and the CHRF-288-11 cell line were seeded semi-automatically in 384-well plates (Corning) using the Multidrop (Thermo Fisher Scientific). Drugs dissolved in DMSO were added to the 384-well plates using the Caliper SciClone ALH3000 liquid handling robot to a final concentration of 10 nM, 100 nM or 1000 nM, respectively.

The drug response on the cell viability was assessed by a 4-day thiazolyl blue tetrazolium bromide (MTT; Sigma) assay as described elsewhere⁷. MTT data was normalized to DMSO controls. The maximum DMSO limit was <0.5% to minimize toxicity induced by DMSO. The value of optical density for the controls were at least 0.07 to ensure the viability of the primary cells were in good condition when assessing the effect of the drug.

Validation of drug candidates was performed by automatically dispensing drugs to the cells using the Hewlett-Packard D300 Digital Dispenser (Tecan, Männedorf, Switzerland) followed by a 4-day MTT assay.

Statistical analysis clinical data

Complete remission (CR) was defined as less than 5% blasts in the bone marrow, with regeneration of trilineage hematopoiesis and absence of leukemia cells in cerebrospinal fluid or elsewhere. If a patient did not obtain CR, treatment was considered a failure at day 0. Event-free survival (EFS), overall survival (OS) were estimated using the Kaplan-Meier method ⁸. OS was calculated from the day of study entry until death. EFS was calculated from the day of study entry to relapse (either death or relapse, whichever occurred first). RR was defined as time to relapse from CR where competing events were defined as deaths without a relapse. TRM was defined as time to death without a relapse for patients in CR where competing events were relapses. Otherwise, patients without an event were censored at the date of last contact for all analyses.

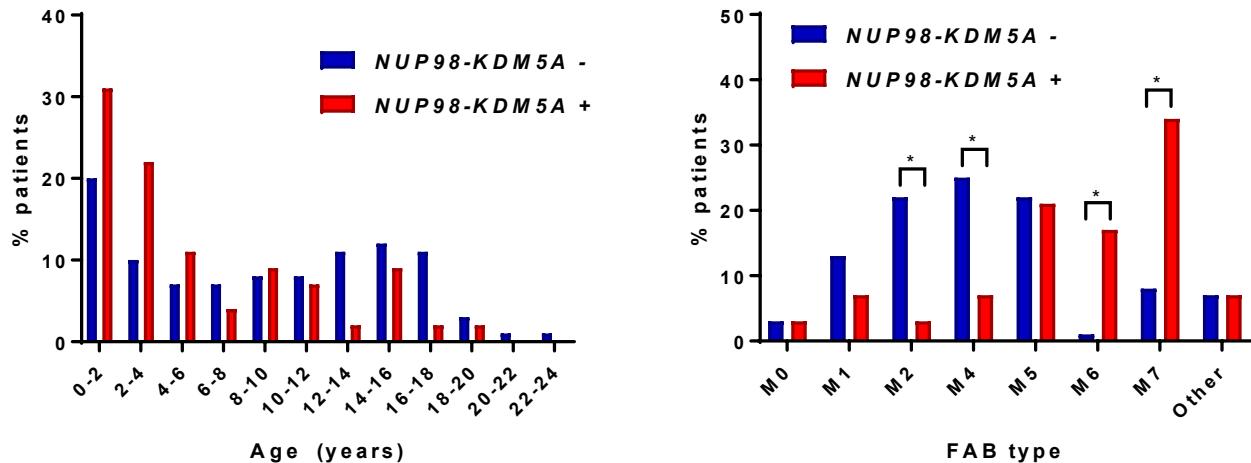
Relapse risk (RR) and treatment-related mortality (TRM) were estimated by the method of competing risks ⁹. Estimates of OS, EFS, RR and TRM were reported with their corresponding two standard errors (SE). Twelve patients from the European cohort had no survival data and were excluded from survival analyses.

For comparisons of clinical characteristics between *NUP98-KDM5A* positive and negative patients, Pearson's χ^2 -square test was used. Fisher's exact test was used when data were sparse. The Cox proportional-hazard model was used for multivariable analyses of OS and EFS ¹⁰; whereas, a competing risk regression model was used for multivariable analyses of RR ¹¹. For

these analyses, age, white blood cell count (WBC), cytogenetic risk group, study group (COG vs European cohort), and allogeneic HSCT in CR as a time dependent variable were used as covariates. For some patients on AAML1031, the date HSCT was received in follow-up was not collected; therefore, the midpoint of the follow-up period when HSCT occurred was used to calculate time to HSCT in CR. Two cytogenetic risk groups were defined: standard risk (SR), patients with t(8;21) or inv(16)/t(16;16) rearranged AML, and high risk (HR), patients with other cytogenetic aberrations. All tests were two-tailed and a P-value of less than .05 was considered significant.

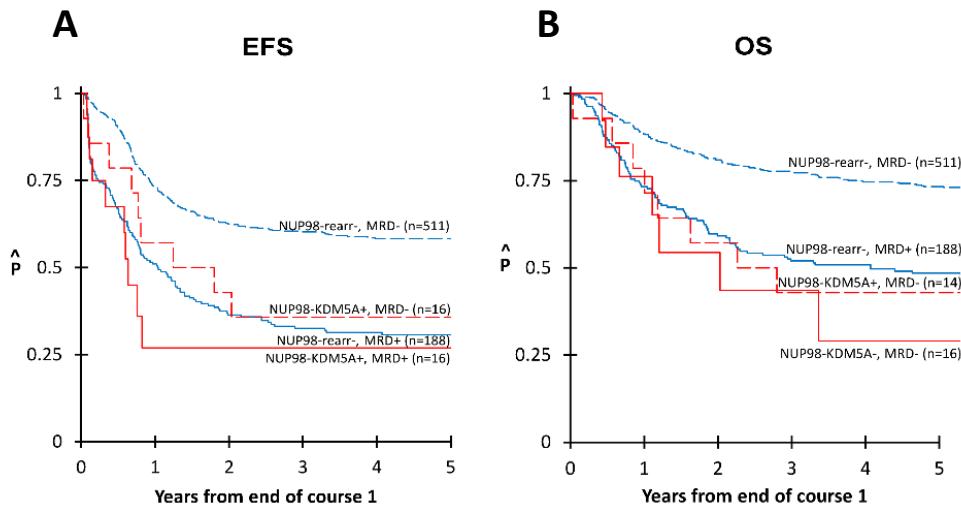
Supplemental figures

Supplemental figure 1. Age and FAB-type distribution of pediatric AML with and without *NUP98-KDM5A* rearrangements.



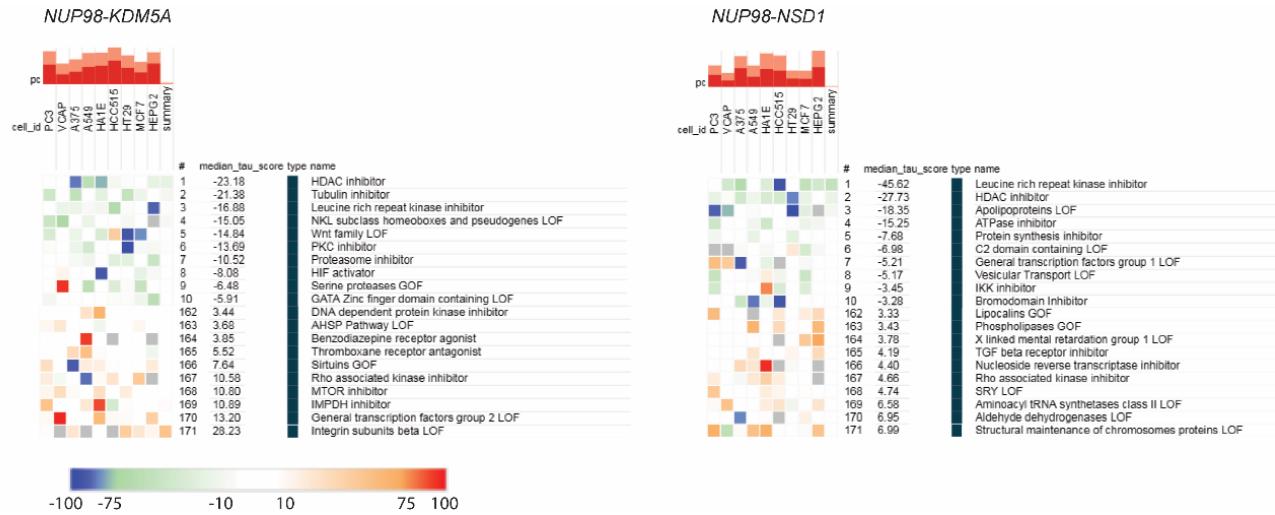
A. Age distribution of *NUP98-KDM5A*+ versus *NUP98-KDM5A*- patients, showing a higher frequency of *NUP98-KDM5A*+ AML in younger patients. B. FAB-type distribution of *NUP98-KDM5A*+ versus *NUP98-KDM5A*- patients. *P<0.05

Supplemental figure 2. Survival of *NUP98-KDM5A*+ and *NUP98-KDM5A*- AML stratified by MRD status



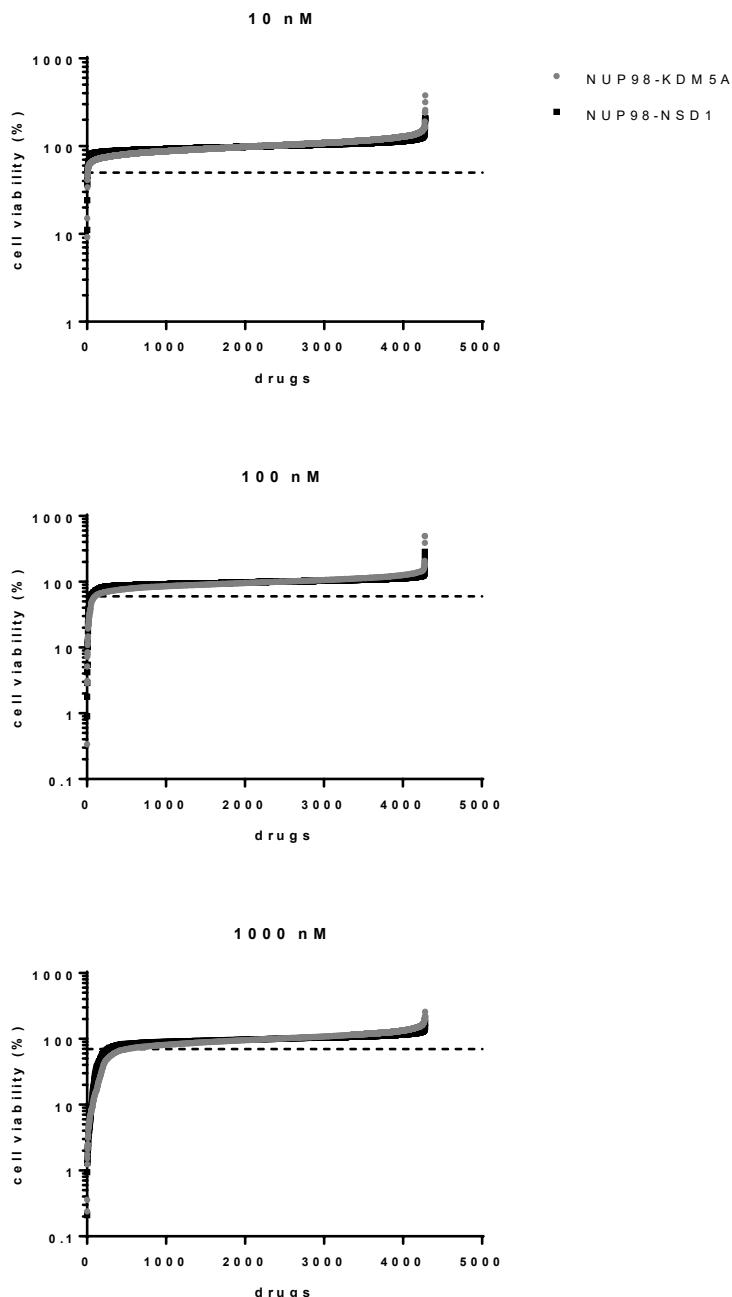
A: EFS of *NUP98-KDM5A* positive and *NUP98*-rearrangement negative patients, stratified by MRD status after the first course of treatment. B: OS *NUP98-KDM5A* positive and *NUP98*-rearrangement negative patients, stratified by MRD status after the first course of treatment.

Supplemental figure 3. Connectivity mapping of *NUP98-KDM5A* (A) and *NUP98-NSD1* (B).



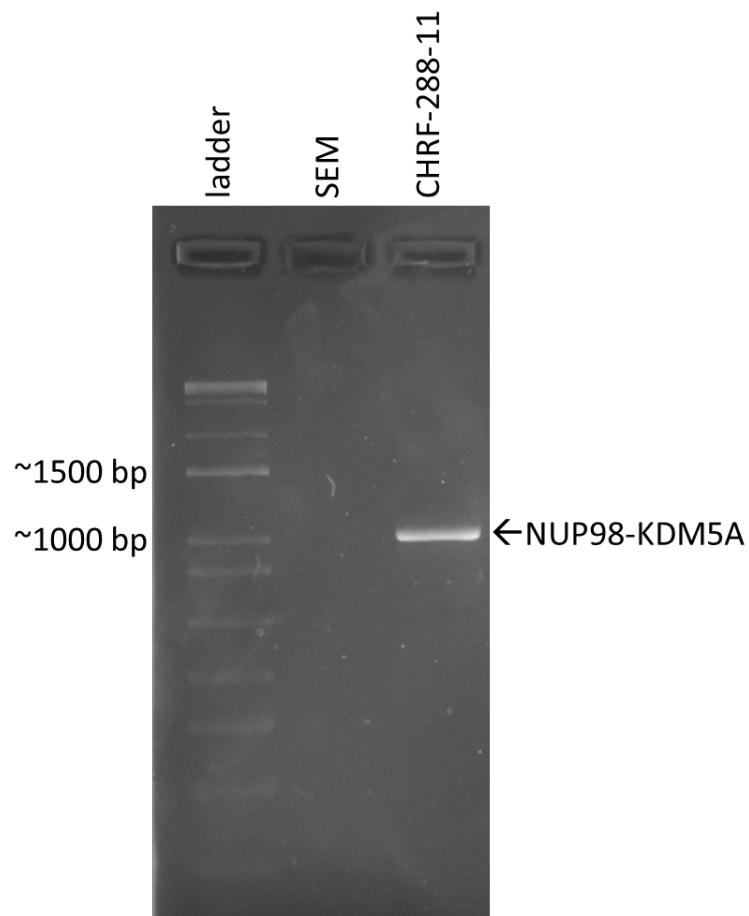
Top 10 highest and lowest median tau score for each *NUP98*-rearrangement for the perturbational classes. A low, negative, score predicts that adding of a member of the perturbational class would oppose the gene expression, whereas a high, positive score predicts that it would further enhance the gene expression.

Supplemental figure 4. Cell viability of all drugs screened on a NUP98-KDM5A⁺ AML and a NUP98-NSD1⁺ AML patient sample.



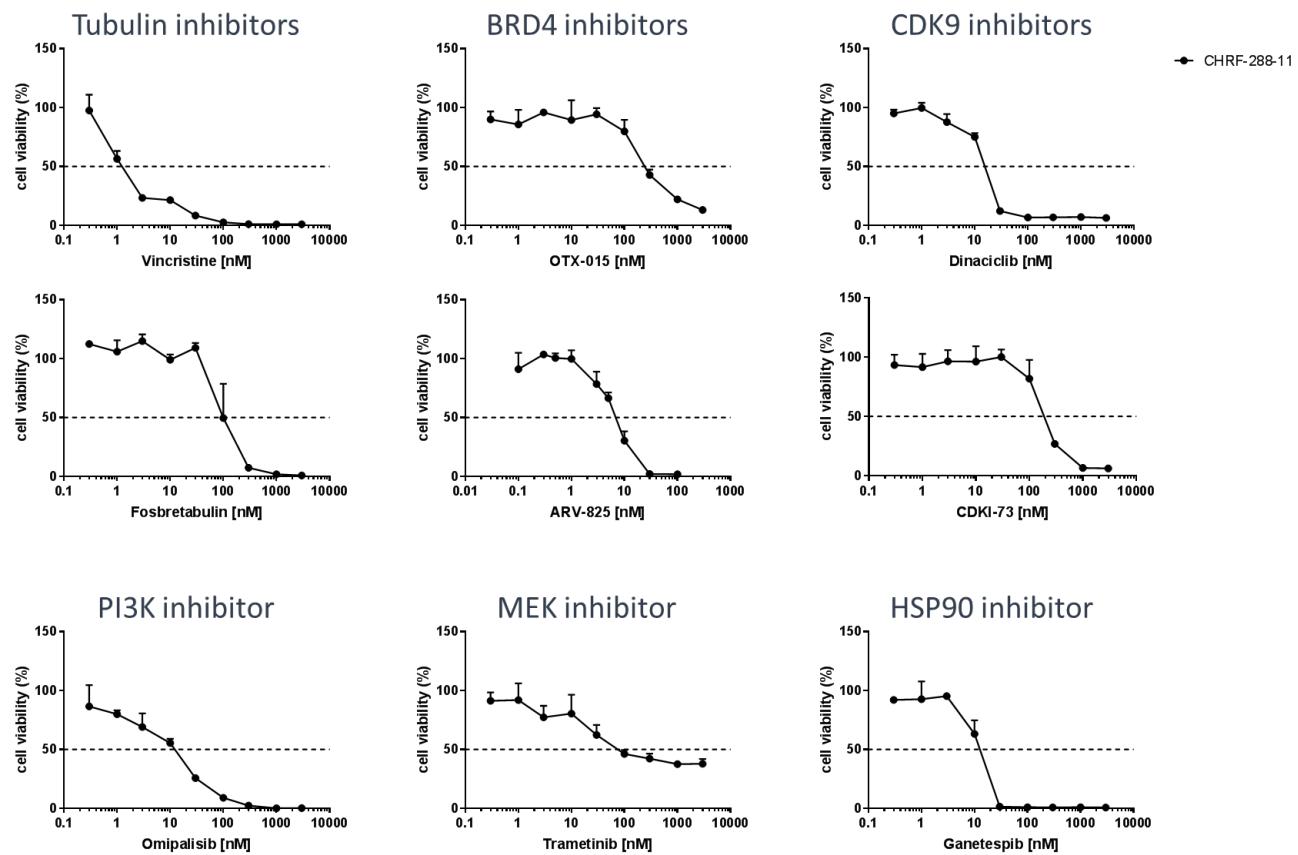
All drugs below the dotted line, representing the cut-off value, are defined as drug hits.

Supplemental figure 5. NUP98-KDM5A present in CHRF-288-11 while not in SEM.



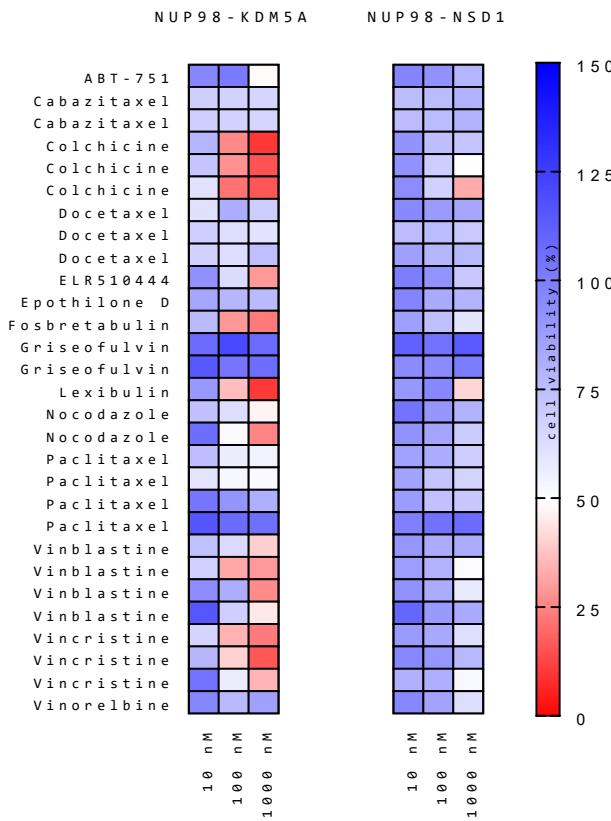
Gel electrophoresis of the PCR product after amplifying of the *NUP98-KDM5A* fusion in the CHRF-288-11 and SEM cell line. The SEM cell line, harboring a t(4;11), was used as negative control.

Supplemental figure 6. Validation of drug candidates on the CHRF-288-11 cell line.



Dose-response curves of the selected candidate drugs after 96 hour exposure of the CHRF-288-11 cell line to tubulin inhibitors vincristine (top) and fosbretabulin (bottom) (A), PI3K inhibitor Omipalisib (B), MEK inhibitor trametinib (C), BRD4 inhibitors OTX-015 (top) and ARV825 (bottom) (D) CDK9 inhibitors dinaciclib (top) and CDKI-73 (bottom) (E) and HSP90 inhibitor ganetespib (F).

Supplemental figure 7. Cell viability results of microtubule inhibitors present in drug screen.



Heatmaps representing the cell viability of a *NUP98-KDM5A*⁺ and a *NUP98-NSD1*⁺ primary AML sample after 96 hours exposure to all microtubule inhibitors present in the drug library screens.

Supplemental tables

Supplemental table 1. Genetic aberrations in *NUP98-KDM5A* + and *NUP98-KDM5A* - patients.

Genetic aberration	NUP98-KDM5A+	NUP98-KDM5A-	P-value
Cytogenetic group, N (%)	44 (93)	2283 (97)	
t(8;21)	0 (0)	314 (14)	0.008
inv(16)	0 (0)	269 (12)	0.016
KMT2A – 11q23	0 (0)	542 (24)	<0.001
t(6;9)	0 (0)	36 (2)	1
Cryptic rearrangements, N (%)*	29	1317	
CBFA2T3-GLIS2	0 (0)	30 (2)	1
Mutations, N/total cases tested (%)			
FLT3/ITD**	1/45 (2)	276/2318 (12)	0.046
FLT3 point mutation*	1/29 (3)	75/1395 (5)	1
CEBPA*	1/47 (4)	137/2325 (6)	0.521
NPM1*	1/47 (2)	177/2326 (8)	0.257
TET2*	0/25 (0)	29/1237 (2)	1
ASXL1*	0/21 (0)	19/1062 (1)	1
CKIT*	0/9 (0)	83/575 (14)	0.372
WT1*	3/29 (10)	91/1401 (6)	0.433

*Data unavailable from AAML1031; **Patients with high FLT3/ITD allelic ratio were excluded from the AAML1031 cohort

Supplemental table 2. Multivariable analyses of survival parameters of *NUP98-KDM5A* rearranged AML.

	EFS			OS			RR		
	Hazard ratio	95% CI	p-value	Hazard ratio	95% CI	p-value	Hazard ratio	95% CI	p-value
HR cytogenetics**	2.29	1.96-2.67	<0.001	3.08	2.46-3.84	<0.001	2.02	1.71-2.40	<0.001
<i>NUP98-KDM5A</i> +	1.40	0.95-2.07	0.093	1.77	1.16-2.71	0.009	1.62	1.01-2.60	0.049
WBC >10*10⁹	1.45	1.25-1.66	<0.001	1.17	0.99-1.39	0.074	1.37	1.15-1.63	<0.001
Age >10 years	0.99	0.88-1.11	0.804	1.08	0.94-1.25	0.283	0.89	0.77-1.02	0.092
European study group	1.05	0.89-1.24	0.598	1.09	0.89-1.34	0.391	1.11	0.91-1.37	0.309
HSCT in CR1	0.53	0.44-0.63	<0.001	0.94	0.77-1.15	0.553	0.54	0.44-0.67	<0.001

**HR=cytogenetic subgroups other than t(8;21) and inv(16)

CI confidence interval; HR, cytogenetic high-risk group; WBC, white blood cell count; HSCT, hematopoietic stem cell transplantation; CR1, first complete remission

Supplemental table 3. Differentially expressed genes in NUP98-KDM5A+ AML

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
HOXB9	8.750000705	-2.755172668	8.933646406	2.00E-18	8.98E-16	31.10577337	430.5391751
HOXB6	8.506241603	-1.698617762	7.981770479	4.01E-15	1.06E-12	23.72270071	363.6083708
HOXB5	8.067032854	-2.426448018	7.976167955	4.18E-15	1.09E-12	23.68138347	268.1753555
FREM1	7.246132697	-2.547414797	9.46454279	2.11E-20	1.35E-17	35.5292697	151.8110186
C17orf96	7.194709025	0.104879529	17.23042285	2.47E-58	4.88E-54	120.8225027	146.4951432
IGF2BP1	7.150258317	-3.227459484	7.743134156	2.41E-14	5.60E-12	21.98542058	142.0503245
TRHDE	7.145248044	-4.117182693	11.99582559	4.89E-31	1.08E-27	59.40570024	141.5578598
FRAS1	6.961651047	-2.480536077	9.497666811	1.58E-20	1.08E-17	35.81231939	124.6423947
HMGAA2	6.943930951	-1.909675466	9.211691463	1.89E-19	1.04E-16	33.39578409	123.1208213
PCGF2	6.920648071	-2.231293113	12.71854751	2.05E-34	1.01E-30	67.00100628	121.1497881
hsa-mir-10a	6.626517182	-2.021233372	6.35710258	3.14E-10	2.65E-08	12.83351523	98.8053449
TRHDE-AS1	6.580495981	-4.107604254	11.66394574	1.56E-29	2.37E-26	56.02780777	95.70324785
HOXB8	6.512172906	-3.965971218	8.005801418	3.34E-15	9.17E-13	23.90021121	91.27658471
HOXB7	6.421827891	-3.387127675	9.096266318	5.07E-19	2.39E-16	32.43795284	85.7359219
ST6GAL2	6.367915849	-2.998771462	8.922865946	2.18E-18	9.60E-16	31.01817855	82.5911818
MEIS2	6.327058871	-1.926001153	8.759679184	8.45E-18	3.34E-15	29.70321082	80.28501715
LIN28B	6.199333155	-4.316680772	7.594257201	7.19E-14	1.55E-11	20.92518521	73.48272154
DOK6	6.169242673	-3.574871072	8.337827331	2.53E-16	8.36E-14	26.40036908	71.96595536
PAPPA	6.169048673	-2.842648601	8.160832217	1.01E-15	2.99E-13	25.05658674	71.95627869
C1orf141	6.102945951	-4.318606429	10.94299592	2.23E-26	2.59E-23	48.93872024	68.73371109
TRIM7	6.09823637	-1.752605094	11.26321955	9.23E-28	1.22E-24	52.04469549	68.50970035
HBE1	5.98556605	-2.528160177	9.119798444	4.15E-19	2.05E-16	32.63240529	63.36288196
C19orf26	5.963562059	-2.250069754	12.67623748	3.26E-34	1.07E-30	66.54754021	62.40380352
TRPC6	5.836148469	-2.965265371	7.297339695	6.05E-13	9.89E-11	18.86538458	57.12888505
OLFM3	5.777674113	-4.898221092	10.59284677	6.68E-25	6.61E-22	45.62264846	54.85967281
HOXB3	5.65641919	1.476186073	5.825047543	7.73E-09	4.38E-07	9.758972051	50.43730164
RP11-357H14.19	5.641043678	-3.665918875	9.122177121	4.07E-19	2.05E-16	32.65208448	49.90262073
NKX2-3	5.596554201	-2.326901382	5.052750554	5.19E-07	1.64E-05	5.744204144	48.38722174
ALS2CR11	5.516035572	-4.100384855	12.08478009	1.91E-31	4.73E-28	60.32302583	45.76064786
PLOD2	5.395966676	-1.885175462	7.799983493	1.58E-14	3.76E-12	22.395073	42.1063722
COL6A6	5.395637832	-1.676304473	6.970265919	5.80E-12	7.86E-10	16.68173567	42.09677568
MAMLD1	5.339852478	-0.245321585	11.71889073	8.83E-30	1.46E-26	56.58214445	40.50006949
MEGF11	5.244193942	-3.573885077	10.61549982	5.38E-25	5.60E-22	45.83461327	37.90178639
PBX1	5.222292036	1.128055384	6.89970003	9.33E-12	1.23E-09	16.2224706	37.33073571
TMEM246	5.218354794	-2.650811181	8.511697779	6.35E-17	2.42E-14	27.74469379	37.22899572
RYR3	5.171646064	0.663428896	6.597417618	6.83E-11	7.07E-09	14.30321483	36.04297182
DPPA4	5.167393066	-0.860329781	6.799039471	1.83E-11	2.16E-09	15.57467406	35.93687527
KCNT2	5.154796017	-3.736493581	8.385004366	1.75E-16	6.17E-14	26.76276227	35.62445448
HOXB4	5.119635418	0.711931056	5.480032852	5.41E-08	2.36E-06	7.899181905	34.76672862
IL23R	5.104881689	-3.139492194	10.07972008	8.34E-23	7.18E-20	40.91833109	34.41299828
SPAG17	5.099722766	-3.123399826	8.283865998	3.88E-16	1.22E-13	25.98803287	34.29016084
DUSP5P	5.067978834	-3.126055077	8.871484341	3.35E-18	1.35E-15	30.60191866	33.54390709
RP11-734I18.1	5.061989674	-3.044626167	6.046900545	2.10E-09	1.43E-07	11.01072907	33.40494258
PRKD1	5.054785383	-3.68675846	9.332319312	6.69E-20	3.90E-17	34.40759535	33.23854632
COL6A5	5.047130462	-2.250035154	6.077714445	1.74E-09	1.21E-07	11.18802354	33.06265011
RP11-362F19.1	5.017711473	-3.713934262	9.122892763	4.04E-19	2.05E-16	32.65800595	32.39527441
TOM1L1	4.992177561	-2.047520562	6.584969845	7.40E-11	7.55E-09	14.22586194	31.82696229
SLC13A3	4.985818864	-2.499356095	9.154647495	3.09E-19	1.65E-16	32.92114864	31.68699322
HOXA6	4.931628668	1.279831076	4.019889825	6.27E-05	0.000947843	1.225604692	30.51884942
PTGER3	4.928797296	-0.684383699	8.316819292	2.99E-16	9.70E-14	26.23956408	30.45901316
CTD-2314B22.3	4.916842963	-3.117680654	6.730567342	2.87E-11	3.28E-09	15.13896918	30.20766913
CACNG4	4.852525276	-4.33868773	7.560815955	9.18E-14	1.95E-11	20.68954153	28.89054023
NLGN1	4.826902941	-3.666502594	6.682763359	3.92E-11	4.36E-09	14.83716109	28.38197228
PKHD1L1	4.816784746	-1.231431764	8.050220508	2.38E-15	6.72E-13	24.22955301	28.18361459
ROBO2	4.786263688	-3.51895184	5.79602646	9.14E-09	5.10E-07	9.598449025	27.5936364
MECOM	4.785741401	-2.161406679	4.761747938	2.21E-06	5.76E-05	4.371554817	27.5836487
MEG3	4.774374551	-0.256183471	5.657323518	2.02E-08	1.01E-06	8.841591213	27.36717382
RNF182	4.766571053	-0.578310452	6.098737472	1.54E-09	1.09E-07	11.30946312	27.21954514

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
GABRE	4.766337048	-2.50400211	5.608384603	2.65E-08	1.28E-06	8.578640471	27.21513048
CDC42BPA	4.760427987	1.531793283	6.921070514	8.08E-12	1.08E-09	16.36110986	27.10388939
CRYM	4.73617544	-2.902523681	8.445146282	1.08E-16	4.04E-14	27.22730638	26.65206552
GAD1	4.705363093	-0.256318842	6.320064457	3.96E-10	3.26E-08	12.61145543	26.08887978
MYCT1	4.704860783	-1.698146708	6.257181002	5.84E-10	4.64E-08	12.23717861	26.07979786
EMX2	4.701546498	-4.345703506	9.108677186	4.56E-19	2.20E-16	32.54045458	26.01995384
HLF	4.681482468	-1.654032161	8.554201681	4.51E-17	1.75E-14	28.07695736	25.66059056
AL589743.1	4.669757225	-3.161671545	6.196890576	8.46E-10	6.44E-08	11.88157687	25.45288394
CXADR	4.642084843	-1.610336166	7.116257999	2.14E-12	3.20E-10	17.64529085	24.96932374
IRX5	4.624487248	-0.921095932	6.28880087	4.81E-10	3.93E-08	12.4249463	24.66660483
IRX1	4.618119874	-2.286200153	4.639819441	3.96E-06	9.45E-05	3.819504892	24.55797798
RP11-178A10.1	4.604904171	-5.021534076	9.533565048	1.15E-20	8.14E-18	36.12000036	24.33404365
ALDH1A1	4.560719199	0.589498661	6.531175303	1.05E-10	1.02E-08	13.89310856	23.60006944
RP11-366L20.2	4.55967061	-0.443503176	6.767441088	2.25E-11	2.60E-09	15.37310745	23.58292252
DPY19L2P1	4.530229163	-3.266919714	7.469010295	1.78E-13	3.46E-11	20.0473869	23.10653716
HOXA9	4.505501094	2.653276698	3.777284009	0.000168078	0.002066972	0.308226961	22.71386158
AP000525.8	4.491579112	-3.384011814	6.399248813	2.41E-10	2.13E-08	13.08765149	22.4957274
KLHL4	4.485786352	-3.765547394	7.220122608	1.04E-12	1.66E-10	18.34174506	22.40558285
RNF150	4.430138387	-2.351368439	6.653178205	4.76E-11	5.08E-09	14.65135913	21.55780501
RP11-129J12.2	4.420333633	-3.278987033	5.51749084	4.40E-08	1.99E-06	8.095948458	21.41179193
FAT4	4.385920985	-1.165283953	7.045426481	3.48E-12	4.98E-10	17.17554875	20.90709897
AJ006998.2	4.385712548	-3.444728702	7.175042012	1.42E-12	2.18E-10	18.03834737	20.90407858
CALD1	4.378868537	-1.230404095	6.128845978	1.28E-09	9.31E-08	11.48406099	20.80514642
KBTBD12	4.366008434	-3.478502339	6.978464147	5.48E-12	7.59E-10	16.7353664	20.62051463
HOXA3	4.35656712	1.764118488	3.985381179	7.24E-05	0.001062112	1.091742972	20.48601004
HOXB-AS3	4.339564706	-2.553869578	5.020538546	6.12E-07	1.88E-05	5.588453945	20.24599591
HOXA5	4.308065425	1.776612798	3.876098227	0.000113194	0.001521589	0.675199634	19.80874294
NFIB	4.287931409	-2.598782805	6.480873774	1.44E-10	1.37E-08	13.58422283	19.53421545
MSX1	4.272923519	-3.401751901	7.671010276	4.10E-14	9.12E-12	21.4695114	19.33206062
GLB1L2	4.263952405	-1.237155133	7.998158217	3.54E-15	9.59E-13	23.84370213	19.21222101
BMP6P1	4.250844595	-4.070198745	6.775574042	2.13E-11	2.50E-09	15.42490612	19.03845623
STAC	4.249415156	-2.864849571	5.963281358	3.45E-09	2.18E-07	10.53382096	19.01960206
SULT4A1	4.230660201	-3.893446475	6.531893742	1.04E-10	1.02E-08	13.89753611	18.77394849
SLC27A6	4.227999289	-1.927374977	5.693429918	1.64E-08	8.45E-07	9.036962739	18.73935366
GRTP1	4.211741972	-2.421004716	6.830105054	1.49E-11	1.85E-09	15.77367344	18.52937059
RP11-146I2.1	4.192389284	-3.305576383	6.828954511	1.50E-11	1.85E-09	15.76628862	18.28247246
LL22NC03-30E12.13	4.192202702	-3.835876124	7.190543431	1.28E-12	1.97E-10	18.14248118	18.28010817
CTD-2643I7.1	4.158388854	-2.812499369	6.221471521	7.28E-10	5.67E-08	12.02617523	17.85664147
RP1-170O19.20	4.15013314	0.917196211	3.77205517	0.000171589	0.002103609	0.289064502	17.75474999
RP11-211A18.1	4.139727126	-4.099946003	8.011306331	3.20E-15	8.92E-13	23.94094039	17.62714751
PIEZ02	4.120609826	0.30827242	4.617930477	4.39E-06	0.000102938	3.721848663	17.39510914
HOXB2	4.097632767	1.093735273	5.365061955	1.01E-07	4.07E-06	7.303115031	17.12026072
RHAG	4.096382482	3.273094944	5.281044161	1.58E-07	6.03E-06	6.875056518	17.10543018
RP11-438N16.1	4.044879696	-2.495999535	8.418677093	1.34E-16	4.82E-14	27.02250178	16.50555444
MYO3B	4.042242802	-3.132732836	7.352225999	4.10E-13	6.94E-11	19.24062234	16.47541388
CTNNA3	4.028447857	-3.09942345	5.998276112	2.80E-09	1.82E-07	10.73265777	16.31862795
HEY2	4.026436055	-3.80639022	7.520191575	1.23E-13	2.49E-11	20.40452489	16.29588789
RP11-112J1.2	3.997162502	-3.335261356	6.879359337	1.07E-11	1.38E-09	16.09087289	15.96856207
HOXA-AS4	3.986384356	-0.822235388	4.361918188	1.43E-05	0.000276405	2.61254696	15.84970799
FAM83A	3.981419528	0.035517228	5.637892383	2.25E-08	1.11E-06	8.736930894	15.79525724
HRC	3.968801577	-3.999456591	6.004353219	2.70E-09	1.77E-07	10.76729737	15.65771276
PCDH9	3.951222667	0.615316186	6.330252794	3.72E-10	3.09E-08	12.67241993	15.46808473
HS3ST4	3.943677981	-3.101931518	4.705264458	2.90E-06	7.25E-05	4.114116688	15.38740433
SAGE1	3.935941208	-2.574463445	3.791962793	0.00015858	0.001978456	0.362158948	15.30510681
TSPAN6	3.931378706	-2.376478019	6.88332576	1.04E-11	1.36E-09	16.11650672	15.25678109
FGF2	3.923713652	-3.288924219	6.742014583	2.66E-11	3.06E-09	15.21153145	15.17593661
CNNM1	3.91984283	-2.247894654	5.666689704	1.91E-08	9.63E-07	8.892159889	15.13527339
PTRF	3.912617247	1.633304767	5.454430717	6.22E-08	2.67E-06	7.765418769	15.05965952
TMEM72	3.909985469	-3.642918106	6.093016707	1.59E-09	1.12E-07	11.27637865	15.03221258
NUP62CL	3.907791621	-1.714531808	6.274268634	5.26E-10	4.25E-08	12.33854145	15.00937108

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
CPS1	3.904512432	-2.853495174	7.497342025	1.45E-13	2.90E-11	20.24481475	14.97529411
PARK2	3.880978366	-1.640693841	6.958761687	6.27E-12	8.43E-10	16.60657403	14.73299022
CYP3A5	3.865788837	-3.835439635	7.41759306	2.58E-13	4.62E-11	19.6907907	14.5786865
LRRC7	3.860947982	-2.941376197	6.572218211	8.03E-11	8.07E-09	14.14675926	14.52985079
EDIL3	3.855808909	-1.655731357	4.572947022	5.42E-06	0.000123428	3.522545324	14.47818558
FAM18A	3.837787157	-3.259991879	8.362772369	2.08E-16	6.98E-14	26.59176556	14.29845297
HOXA2	3.83387685	-1.536193931	4.406005662	1.17E-05	0.000236207	2.799250618	14.25975065
HPSE2	3.829665767	-4.061317737	5.42846551	7.16E-08	3.02E-06	7.630360328	14.21818855
AL132709.8	3.818351415	-4.208814724	6.659221972	4.57E-11	4.92E-09	14.68925435	14.10711835
HOXA10	3.795528086	2.340747878	3.434565998	0.000618318	0.005795667	-0.893095837	13.8857008
RP1-163G9.1	3.794674455	-2.906160763	4.298045169	1.89E-05	0.000352354	2.345257745	13.87748718
ATP8A2	3.783375462	-1.761198755	6.802652485	1.78E-11	2.13E-09	15.59777589	13.76922507
PRAME	3.78238231	1.708579546	3.506487541	0.000474598	0.004683721	-0.650212483	13.75974959
NEO1	3.762334021	1.924474561	5.552017122	3.63E-08	1.67E-06	8.278429181	13.56986084
SKIDA1	3.761121193	1.825595855	4.233977778	2.51E-05	0.000443286	2.080968497	13.55845788
CTA-109P11.4	3.760189015	-3.455474975	6.453078781	1.72E-10	1.58E-08	13.41448161	13.5497001
ZNF711	3.758045132	1.500496202	4.77474478	2.07E-06	5.47E-05	4.431206179	13.52957984
XIRP2	3.749674606	-2.980631515	5.773498437	1.04E-08	5.64E-07	9.474356406	13.45130841
TBX2	3.72922528	-2.565965019	7.462281229	1.87E-13	3.59E-11	20.00059366	13.2619892
MAP2	3.729002408	-3.008938451	7.46940104	1.78E-13	3.46E-11	20.05010526	13.2599406
RPS3AP39	3.717138176	-3.680317226	7.69920473	3.33E-14	7.49E-12	21.67068092	13.15134252
HBG2	3.710744144	5.444776915	4.564796271	5.63E-06	0.000127389	3.486632571	13.09318468
HOOK1	3.704234406	0.539864492	8.247980267	5.14E-16	1.56E-13	25.71510379	13.03423862
MYO16	3.697753454	-2.6856529	5.257504129	1.79E-07	6.70E-06	6.756266907	12.97581683
AL132709.5	3.684777899	-4.204729639	6.522508881	1.10E-10	1.06E-08	13.83973487	12.85963598
ZNF300	3.678613255	-0.945330338	6.818972182	1.60E-11	1.95E-09	15.70226395	12.80480391
ST6GALNAC1	3.67002542	-0.816176668	5.793196421	9.29E-09	5.15E-07	9.582835374	12.72880801
CNTN4	3.654299928	-3.365855011	4.279691058	2.05E-05	0.000376504	2.269153192	12.59081641
NAP1L3	3.648130135	-2.503510435	6.41959137	2.12E-10	1.89E-08	13.21086644	12.53708582
ITLN1	3.634196001	-2.227366574	5.697694417	1.60E-08	8.27E-07	9.060114673	12.41658044
A2ML1	3.632402588	-3.715476757	7.429985313	2.36E-13	4.36E-11	19.77653435	12.40115499
LL22NC03-30E12.10	3.6314989	-4.258182409	6.802381649	1.79E-11	2.13E-09	15.59604376	12.39338947
SLC22A10	3.602516064	-4.391764087	6.975079573	5.61E-12	7.71E-10	16.71321847	12.14689829
CFH	3.594731107	0.169935624	5.148343585	3.17E-07	1.09E-05	6.211969417	12.08152869
VWDE	3.577681718	-1.847919729	5.121852185	3.64E-07	1.21E-05	6.081507209	11.93959271
ESRRG	3.56569605	-4.526541515	7.072000829	2.90E-12	4.19E-10	17.35128869	11.84081148
ACTN2	3.565497454	-3.455936474	6.356930775	3.15E-10	2.65E-08	12.83248243	11.83918162
HEPACAM2	3.564845573	-1.092563384	5.252615983	1.84E-07	6.85E-06	6.731662784	11.8338333
HBBP1	3.556006419	-2.256056697	5.362044651	1.03E-07	4.13E-06	7.287632055	11.76155102
IL1RAPL1	3.546051924	-4.942303161	7.419526065	2.54E-13	4.61E-11	19.70415701	11.68067648
RGS9BP	3.541171548	-1.493757174	7.393804755	3.05E-13	5.34E-11	19.52655415	11.64122962
TRPM4	3.536781334	0.954693257	3.726136364	0.000205527	0.00242792	0.12189035	11.60585846
RYR2	3.53253237	-3.848748366	5.100205256	4.07E-07	1.33E-05	5.975375865	11.57172766
RP13-726E6.2	3.532175935	-2.295064626	7.539504391	1.07E-13	2.21E-11	20.53985153	11.56886908
PCYT1B	3.527138354	-0.347432191	5.864522139	6.15E-09	3.60E-07	9.978515356	11.52854352
HOXA7	3.523884531	-0.114952675	3.328205081	0.000906534	0.007823385	-1.243275246	11.50257159
RP11-26F2.1	3.508881087	-2.094380674	3.015264972	0.00263357	0.017563344	-2.21104709	11.38356937
CDH6	3.50191414	-4.198837788	6.527796239	1.07E-10	1.03E-08	13.87229028	11.32872927
IGSF3	3.501277098	-0.743978773	6.206395493	7.98E-10	6.17E-08	11.93742724	11.32372802
SYTL4	3.5011111402	0.55871553	4.746391015	2.38E-06	6.10E-05	4.30127141	11.32242754
SYDE2	3.496959914	-0.568675746	5.751148686	1.18E-08	6.38E-07	9.351691512	11.28989305
RP11-578F21.10	3.492663047	-2.137863561	3.370957979	0.000778258	0.006971205	-1.103809978	11.25631769
HOXA4	3.487366597	0.80134501	3.720410823	0.000210177	0.002471042	0.101185163	11.21506904
IGLVV-58	3.486174035	-4.703681043	7.371207962	3.59E-13	6.17E-11	19.37098017	11.20580227
ZNF229	3.469662543	-1.351247416	5.621306938	2.47E-08	1.19E-06	8.647864811	11.07828415
RGS6	3.459553165	-1.081483887	6.167544165	1.01E-09	7.53E-08	11.70963793	11.00092678
EXOC3L4	3.447584805	-1.892108827	5.954721892	3.62E-09	2.27E-07	10.48535139	10.91004241
IGSF11	3.433780914	-3.091463734	6.970345582	5.79E-12	7.86E-10	16.68225653	10.80615154
ZDHHC15	3.425834682	-2.773734596	5.298243077	1.44E-07	5.53E-06	6.962163741	10.74679586
RP11-446H18.3	3.411467653	-1.034219058	5.920618961	4.43E-09	2.69E-07	10.29287974	10.64030539

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
PLCB4	3.403823141	-0.636551869	4.601433528	4.75E-06	0.000110199	3.648540571	10.58407395
PRR15	3.399915545	-3.143328001	5.650191784	2.10E-08	1.05E-06	8.803138989	10.55544535
SELP	3.394963924	1.435036438	6.006012018	2.67E-09	1.76E-07	10.7767582	10.51927903
IGLV4-60	3.394113853	-2.843138829	6.029230311	2.33E-09	1.56E-07	10.90943643	10.51308265
BCORP1	3.393597276	-2.547905626	4.129300715	3.95E-05	0.000647757	1.657391556	10.50931896
ANKFN1	3.392013263	-3.148467126	5.626288094	2.40E-08	1.16E-06	8.674588471	10.49778654
RP11-57F8.21.12	3.376283496	0.971383203	3.383814884	0.000743117	0.006729542	-1.061529074	10.38395043
SLC44A4	3.373580326	-1.967515654	6.366195633	2.97E-10	2.55E-08	12.88821454	10.36451229
MED12L	3.363393384	4.299341777	5.104193021	3.99E-07	1.31E-05	5.994895222	10.29158572
EIF1AY	3.358874765	-0.504183783	2.875892233	0.004115955	0.024860319	-2.611902304	10.2594022
OSBPL6	3.344227168	-1.029643595	5.236410046	2.00E-07	7.40E-06	6.650246036	10.1557661
PDIA2	3.340201872	-2.831968719	7.392695427	3.08E-13	5.34E-11	19.51890674	10.12746976
C6orf25	3.338158553	0.984274369	5.636500846	2.27E-08	1.11E-06	8.72944871	10.11313617
PLSCR4	3.337815985	-1.378591913	5.298093591	1.44E-07	5.53E-06	6.961405487	10.11073509
COL11A1	3.332209655	-4.177611582	5.583788082	3.05E-08	1.44E-06	8.44729062	10.07152089
FKBP14	3.319939957	3.155376707	6.441916968	1.84E-10	1.69E-08	13.34650587	9.986228771
SETP11	3.318791293	-2.091124756	5.097887763	4.12E-07	1.34E-05	5.964038815	9.978280967
TTLL7	3.313431865	-1.115106493	5.602675727	2.74E-08	1.31E-06	8.54810583	9.941281691
GPC5	3.302135385	-3.08047213	5.7316549	1.32E-08	7.00E-07	9.245064128	9.863744191
CCDC74A	3.299873633	-1.727790204	6.183243456	9.20E-10	6.92E-08	11.80152538	9.848292647
EGFEM1P	3.296119276	-2.879921491	4.622939085	4.29E-06	0.000100886	3.74415527	9.822697541
EML6	3.283706367	0.52346365	9.898961927	4.37E-22	3.46E-19	39.30607799	9.73854585
PRDM16	3.282959332	-1.073854749	3.478793866	0.00052578	0.005104808	-0.744316899	9.733504486
DTX3	3.273063038	0.871559294	6.836800519	1.42E-11	1.78E-09	15.81667102	9.666965134
C2orf88	3.262707849	1.381246547	5.311176833	1.35E-07	5.23E-06	7.027845266	9.597827268
HBG1	3.25436818	4.030705698	3.915455049	9.65E-05	0.001343264	0.823919758	9.542505945
SLTRK6	3.252068014	-4.845421575	6.818626101	1.60E-11	1.95E-09	15.70004579	9.527303939
AC138649.1	3.2468944	-3.121506208	3.865339143	0.000118224	0.001573685	0.634797078	9.49319949
C14orf38	3.227746207	-3.025425198	5.215783022	2.23E-07	8.12E-06	6.546962117	9.368033318
AC103702.1	3.226113386	-4.32058473	5.048120303	5.32E-07	1.67E-05	5.721757984	9.357436712
TEK	3.207434106	-1.581174052	5.714098159	1.46E-08	7.63E-07	9.149321521	9.237062349
RP11-844P9.2	3.205374641	-2.335188157	4.788999154	1.93E-06	5.14E-05	4.496807525	9.223885735
RP11-13K12.1	3.185288662	-0.252303098	3.877982973	0.000112335	0.001515176	0.682288447	9.096355648
EPB41L4A	3.157934204	-0.510810148	6.686552916	3.83E-11	4.30E-09	14.86101474	8.925507512
IFI27	3.153840873	1.176266645	4.837768449	1.52E-06	4.22E-05	4.722663012	8.900219228
ARHGAP6	3.15198869	-0.984264166	4.497118608	7.71E-06	0.000165461	3.190811726	8.888800145
MAGI1	3.140201334	-2.850093908	4.935050085	9.41E-07	2.77E-05	5.179691006	8.816471217
CCDC68	3.131252218	-2.069623869	5.536438719	3.96E-08	1.82E-06	8.195960846	8.761951434
RBFOX2	3.122788379	0.930063885	4.979091768	7.54E-07	2.28E-05	5.389443396	8.710698302
HIF3A	3.121802954	-3.86418335	4.101126879	4.45E-05	0.000717309	1.545133622	8.704750541
DNAJC6	3.111758279	2.647074005	5.570592585	3.28E-08	1.54E-06	8.377047347	8.644354749
MYO18B	3.105649085	1.40618047	2.971171494	0.003038918	0.019650676	-2.339880286	8.607827013
CLCN4	3.102869786	1.015674406	5.819041426	8.01E-09	4.51E-07	9.72568934	8.591260311
PROS1	3.10019091	-0.302140188	4.982183095	7.43E-07	2.24E-05	5.404232619	8.575322389
MAOA	3.097635034	-0.819629776	5.628198747	2.38E-08	1.15E-06	8.684844915	8.560143812
LCA5	3.095331356	0.231460635	5.948528978	3.76E-09	2.34E-07	10.45032319	8.546485982
MME	3.089891525	0.533634022	4.375750429	1.34E-05	0.000262956	2.670930109	8.514321249
ZNF883	3.088530274	-3.531266544	5.848249183	6.76E-09	3.90E-07	9.887843757	8.506291376
NID2	3.079679107	-0.805137675	5.734904614	1.30E-08	6.91E-07	9.262815972	8.454263669
NCR2	3.078499945	-4.127825109	5.130336364	3.48E-07	1.18E-05	6.123219879	8.447356543
GLRB	3.067240898	-3.701889171	5.199258781	2.43E-07	8.73E-06	6.46449971	8.381688458
SDPR	3.060222186	1.719999824	4.577677109	5.30E-06	0.000120915	3.543414531	8.341010568
AP001189.4	3.056540356	-3.154717098	5.464351731	5.89E-08	2.54E-06	7.817183084	8.319751028
SFRP5	3.056398796	-2.904602119	4.738263314	2.47E-06	6.33E-05	4.264161378	8.318934719
IL7	3.049998872	-2.297830865	5.570348349	3.28E-08	1.54E-06	8.375748679	8.282112914
RP11-313J2.1	3.044980777	-4.09312383	5.956546491	3.59E-09	2.26E-07	10.49567809	8.253355465
GDF15	3.043307888	-0.470139387	5.447739315	6.45E-08	2.75E-06	7.730555364	8.243790765
HMGB1P30	3.043156517	-3.305458576	5.440485705	6.71E-08	2.86E-06	7.692808217	8.242925849
RP11-277P12.20	3.028865777	-1.846268048	6.704779209	3.40E-11	3.84E-09	14.97591363	8.161677904
DGKI	3.02517292	-3.270184129	6.172838219	9.80E-10	7.34E-08	11.74059974	8.140813227

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
DLK1	3.023138102	-3.02637495	3.779407574	0.000166672	0.002059918	0.316016684	8.129339285
HOXA-AS3	3.022103562	-1.699361116	3.651113906	0.00027488	0.003056798	-0.146957579	8.123511924
AQP10	3.020221736	-2.851806422	5.63436105	2.29E-08	1.12E-06	8.717946572	8.112922666
REN	3.01844937	-3.637893564	4.151850896	3.58E-05	0.000597513	1.747776689	8.102961975
GPR173	3.008495044	-2.300411507	4.332676688	1.62E-05	0.000308191	2.489709438	8.04724549
TRPV5	3.005808571	-1.963306424	6.666395426	4.37E-11	4.80E-09	14.73427358	8.032274485
FAM65C	3.00262054	3.40739569	4.68364432	3.21E-06	7.96E-05	4.016353781	8.014544564
SPTA1	2.994115966	5.621440125	4.903882635	1.10E-06	3.17E-05	5.03232406	7.967438434
AP000688.8	2.992818564	-2.681155236	3.865257053	0.000118263	0.001573685	0.634489235	7.960276614
PIR	2.986075249	-1.692246027	5.516474361	4.42E-08	1.99E-06	8.090592287	7.923156227
ARHGAP42	2.981042044	-0.026006094	5.502095554	4.79E-08	2.11E-06	8.014924742	7.895562463
NKAIN2	2.975819314	-3.33005738	3.793871883	0.000157383	0.001968483	0.369188144	7.867031248
PRTFDC1	2.971869359	-2.017787165	4.798999482	1.84E-06	4.95E-05	4.542942246	7.84552156
PRRG1	2.968897823	-2.986832795	4.033094866	5.93E-05	0.00090769	1.277123347	7.82937868
AL008733.1	2.963977788	-4.721777432	5.729302284	1.34E-08	7.07E-07	9.232218628	7.80272356
SLC8A3	2.963603865	0.234545389	4.205007812	2.85E-05	0.000494961	1.962717943	7.800701483
IRX3	2.963277579	-1.196512083	3.371730287	0.000776104	0.006955061	-1.101274624	7.798937442
GYG2P1	2.956101334	-4.696226731	6.26837598	5.45E-10	4.39E-08	12.30355779	7.760240338
FNBP1L	2.952967242	3.554420526	6.006033195	2.67E-09	1.76E-07	10.776879	7.743400389
XXbac-BPG154L12.4	2.94711659	-1.294573199	6.100406099	1.52E-09	1.08E-07	11.31911858	7.71206168
IRF6	2.944303164	-1.221774186	5.185247851	2.62E-07	9.29E-06	6.394773546	7.697036902
TTLL7-IT1	2.940394581	-3.13885907	5.171261072	2.82E-07	9.88E-06	6.325345089	7.676212131
RP11-98O2.1	2.939932922	-4.773339542	5.848277369	6.76E-09	3.90E-07	9.888000605	7.673756154
PTCH1	2.937168036	0.761478717	5.603082582	2.73E-08	1.31E-06	8.550280985	7.659063695
KEL	2.936260012	2.697820821	4.535181469	6.47E-06	0.000141838	3.356664418	7.65424464
FAM127C	2.928636919	-2.91505783	4.547220882	6.11E-06	0.000136148	3.409403074	7.613906846
WBSCR27	2.907261123	-3.166097277	5.989645096	2.95E-09	1.90E-07	10.68351681	7.501926471
PKP2	2.905402636	-0.704270606	3.78697485	0.00016175	0.002012917	0.343809744	7.492268677
TSPYL5	2.895714777	0.663719294	4.485848815	8.12E-06	0.000172954	3.141962641	7.442125797
MYRIP	2.894451419	-3.02536865	5.004025509	6.65E-07	2.02E-05	5.508977346	7.43561163
WBP5	2.893784035	-1.344708703	4.176534499	3.22E-05	0.000548351	1.847257423	7.432172749
HRASLS	2.884643814	-4.700479954	6.019052544	2.47E-09	1.64E-07	10.85121831	7.385234924
MYL4	2.884303121	1.388409227	4.106934172	4.34E-05	0.000702103	1.568211917	7.383491104
BEX1	2.881999584	-0.339662265	3.517560077	0.000455468	0.004544802	-0.612383916	7.371711362
EPCAM	2.880400941	-1.039240291	4.205623508	2.84E-05	0.000494073	1.965222969	7.363547332
CA3	2.879120894	-0.929699976	5.23054471	2.07E-07	7.57E-06	6.620837851	7.357016844
AC073410.1	2.873239795	-1.561199492	6.183252696	9.20E-10	6.92E-08	11.80157953	7.327087248
DNAH8	2.870616272	-1.170081655	4.058345069	5.33E-05	0.000832476	1.376090238	7.313775138
TSSC2	2.869606355	-3.051182754	6.083687859	1.68E-09	1.18E-07	11.22248949	7.308657133
ZNF334	2.867393881	-0.657074634	3.832018953	0.000135172	0.001750045	0.510363877	7.297457386
SH3BGRL2	2.865779413	0.927584446	5.532622235	4.05E-08	1.85E-06	8.175790457	7.289295634
AC003102.3	2.861900829	-1.144407104	5.563085264	3.42E-08	1.59E-06	8.33715336	7.269725194
PROX1	2.861876736	-3.896302334	5.123993224	3.60E-07	1.20E-05	6.092027507	7.269603792
AC007392.3	2.861526138	-2.655558433	4.559784098	5.77E-06	0.00012981	3.46457907	7.267837372
NCKAP1	2.860413247	0.37897157	5.223384519	2.14E-07	7.84E-06	6.584979609	7.262233148
MEIS1	2.853125554	4.224880425	2.715177469	0.006740223	0.035338952	-3.050981448	7.225640881
MYH10	2.842546502	2.365817699	4.996396107	6.91E-07	2.09E-05	5.472341298	7.172850201
TRPC1	2.836103751	-0.22006639	6.32745403	3.78E-10	3.13E-08	12.65566381	7.14088929
LTBP1	2.831374653	3.955154624	4.460182174	9.13E-06	0.00019157	3.031149065	7.117520055
ANKRD5	2.831357367	-1.1982838	5.699671576	1.59E-08	8.20E-07	9.070854154	7.117434776
INTU	2.823510778	-0.49763882	3.893279007	0.00010558	0.00144276	0.739942671	7.078829257
MORC1	2.815873678	-3.071100144	5.38756272	8.94E-08	3.66E-06	7.418834041	7.041455532
SCN9A	2.808445897	-0.504871057	3.613958608	0.000316856	0.00342603	-0.278136497	7.005295444
RP11-3K16.2	2.807735781	-4.909664383	5.491380109	5.08E-08	2.22E-06	7.958656026	7.001848181
STXBP1	2.806940062	-0.316570241	5.173567577	2.78E-07	9.78E-06	6.336782048	6.997987377
KALP	2.802147483	-2.27039892	3.173655945	0.001552112	0.011816714	-1.732908739	6.974778891
EREG	2.799627053	3.833717236	3.38904125	0.000729258	0.006616234	-1.044296839	6.962604391
RP11-757G1.6	2.798662079	-0.293524253	5.702759783	1.56E-08	8.10E-07	9.087635566	6.957948879
RP11-11N9.4	2.795465284	-1.595690691	4.415180001	1.12E-05	0.000227658	2.838329273	6.942548182
C6orf223	2.79481284	-1.280384549	4.719744908	2.70E-06	6.84E-05	4.179835517	6.939409191

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
KCP	2.792392531	-0.551581383	6.281807645	5.02E-10	4.09E-08	12.38334343	6.927777191
SEMA3C	2.790239222	-1.819544228	4.065049069	5.19E-05	0.000813139	1.402466519	6.91744478
PLAG1	2.788151659	1.330206202	6.04797898	2.08E-09	1.43E-07	11.01691997	6.907442554
ROBO1	2.781868249	0.309339035	3.25291992	0.001181187	0.009594481	-1.484634058	6.877423796
C3orf14	2.77835568	-3.576871337	4.617049027	4.41E-06	0.000102993	3.71792538	6.860699511
RP11-701B16.3	2.772501941	-4.056958105	5.557754122	3.52E-08	1.63E-06	8.308854256	6.832918605
CNRIP1	2.767273332	1.60905703	4.766820065	2.15E-06	5.64E-05	4.394815809	6.808199593
AC073283.4	2.765404508	-3.43487301	5.117170286	3.73E-07	1.24E-05	6.058516537	6.79938616
PLEKHA8	2.757757673	2.275609593	5.80589959	8.64E-09	4.83E-07	9.652975922	6.76344216
PPAPDC3	2.752744177	-1.108209805	4.433322824	1.03E-05	0.000212806	2.915839551	6.739979377
IGSF9	2.746592507	-1.908835718	5.415625626	7.68E-08	3.19E-06	7.563797508	6.711301203
COL6A4P2	2.745379701	-0.855907134	5.317347447	1.30E-07	5.08E-06	7.059234738	6.7056617
CCDC152	2.742901347	-1.843471869	4.869200223	1.31E-06	3.66E-05	4.869381968	6.694152172
CC2D2A	2.740791927	-1.967371019	4.795389161	1.87E-06	5.01E-05	4.526276092	6.684371547
GRIN3A	2.736978778	-3.19445613	5.197419607	2.46E-07	8.79E-06	6.455336813	6.666727588
GCKR	2.733528624	-3.324805841	5.739364183	1.27E-08	6.77E-07	9.287192052	6.650803397
CDH1	2.731847488	0.79628438	4.392016107	1.24E-05	0.000246828	2.739811588	6.643057897
RP11-382A20.3	2.726111198	0.952374507	4.68469299	3.20E-06	7.93E-05	4.021085774	6.616696922
ONECUT2	2.72129526	-3.158477595	3.739216579	0.000195266	0.002327547	0.169308201	6.594646191
NUDT11	2.720546261	-3.310989308	5.144004281	3.25E-07	1.11E-05	6.190556002	6.591223363
CYP2T2P	2.720522619	-2.252962659	5.552903017	3.62E-08	1.67E-06	8.283125427	6.591115349
GULP1	2.709488736	-4.041109275	4.748843885	2.35E-06	6.04E-05	4.312482818	6.540898085
ITPKA	2.707290126	0.146347245	6.464889089	1.59E-10	1.50E-08	13.48652423	6.530937608
RP11-122A3.2	2.704261412	-0.8441992	5.000154997	6.78E-07	2.06E-05	5.490384683	6.517241303
RP11-670E13.2	2.701701946	-1.869042757	7.788842499	1.71E-14	4.04E-12	22.31458354	6.505689401
PDZK1IP1	2.699356159	-0.410701341	4.454727648	9.36E-06	0.00019526	3.007678217	6.495119906
NGFRAP1	2.694374155	0.807299649	4.019672705	6.27E-05	0.000947843	1.224758978	6.472729238
SLC16A9	2.689174509	-0.709209863	4.266984697	2.17E-05	0.000394115	2.216650486	6.449442734
ABCG2	2.688206396	0.378253275	4.905862156	1.09E-06	3.14E-05	5.041657279	6.445116319
RBPMS2	2.687256937	-0.918120782	3.672854675	0.000252801	0.002861773	-0.069595237	6.440876087
PRKAR2B	2.68671238	4.619869317	6.028991482	2.33E-09	1.56E-07	10.90806925	6.438445384
GSTM3	2.685641038	1.180074217	5.284899051	1.55E-07	5.92E-06	6.894557113	6.433665984
ABO	2.680842321	-0.308460254	3.350369437	0.000837765	0.007376283	-1.17118947	6.412301767
EXPH5	2.680531423	-0.326570663	5.204926526	2.36E-07	8.49E-06	6.492756091	6.410920076
RP5-884M6.1	2.678339419	-3.591885435	4.333263784	1.62E-05	0.000307788	2.492167892	6.401186838
PSAT1	2.677179546	-0.284944214	5.08878609	4.32E-07	1.40E-05	5.919561169	6.39604259
KLHL21	2.673602164	6.514773503	13.38428024	1.19E-37	7.88E-34	74.27542379	6.38020228
ITGA2B	2.672140108	4.448509999	4.26808878	2.16E-05	0.000392565	2.221206593	6.373739731
TEX15	2.671631202	-4.137594149	4.476547014	8.47E-06	0.000178964	3.101732411	6.37149181
RP11-757F18.5	2.66020901	-2.844298484	5.332786474	1.20E-07	4.70E-06	7.137922543	6.321246217
SCIN	2.658025572	-3.339827863	4.882402748	1.22E-06	3.48E-05	4.931279241	6.3116866
GFI1B	2.648563207	3.104826589	4.730264396	2.57E-06	6.53E-05	4.227698634	6.270424899
C3orf52	2.640461785	-0.823157013	5.071056459	4.73E-07	1.52E-05	5.833137139	6.235312146
SP6	2.636944175	-1.255078445	7.539278214	1.07E-13	2.21E-11	20.5382649	6.220127596
LAPTM4B	2.631938831	3.286694812	4.869221604	1.31E-06	3.66E-05	4.869482078	6.198584627
MYEF2	2.63086482	2.832823865	4.415050294	1.12E-05	0.000227658	2.837776231	6.193971822
PYGO1	2.624862253	-3.39311504	4.581173192	5.22E-06	0.000119227	3.558852581	6.168254336
TMEM133	2.624172332	-2.296721276	4.872616694	1.28E-06	3.62E-05	4.885384073	6.165305279
LIPH	2.620920915	-2.877502727	4.251914601	2.32E-05	0.000416125	2.154575728	6.151426108
FER1L6	2.620194498	-2.610312747	4.589697303	5.01E-06	0.000114832	3.596540752	6.14832956
BMPR2	2.617082331	4.337714693	6.196766206	8.47E-10	6.44E-08	11.8808466	6.135080743
AKR1C2	2.616971424	-1.923171056	4.460057256	9.14E-06	0.00019157	3.030611235	6.134609125
TRO	2.614215027	-0.027022122	3.25758555	0.001162146	0.009494377	-1.469833368	6.1228996
DCBLD2	2.606486392	1.033368804	4.697324452	3.01E-06	7.49E-05	4.078163235	6.09018643
FOXJ1	2.603185941	-2.197237654	5.389499221	8.85E-08	3.63E-06	7.428814576	6.076269846
GYPB	2.600575099	0.946823968	3.75757508	0.000181675	0.002201347	0.236132927	6.065283579
SEMA6C	2.599553892	1.511866545	7.980893321	4.03E-15	1.06E-12	23.7162302	6.060991807
TMTC1	2.599160251	-2.496445853	4.019618946	6.28E-05	0.000947843	1.224549584	6.059338284
ZNF205	2.598948309	-2.5969096	3.90782859	9.95E-05	0.001377138	0.794987454	6.058448187
HOXA11-AS	2.596828885	-1.824873457	2.935233019	0.003410605	0.021554021	-2.443507516	6.049554423

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
C10orf114	2.584682882	-0.208815323	2.832497614	0.004713036	0.02739087	-2.732905433	5.99883721
SCRN1	2.582354716	3.553896686	4.293231771	1.94E-05	0.000359263	2.325268862	5.989164324
PRSS23	2.573087838	-1.259321639	5.510898815	4.56E-08	2.04E-06	8.061229319	5.950817351
GYPE	2.569858321	0.630311978	4.178560504	3.19E-05	0.00054498	1.855447961	5.937511164
MEIOB	2.569004483	-3.594630432	3.6439671	0.000282525	0.003121346	-0.172291193	5.933998174
TMSB4Y	2.562574399	-2.193826226	2.848325471	0.004486711	0.026540674	-2.68898004	5.907609229
AR	2.560511227	-0.144868414	3.065700301	0.002230976	0.01554925	-2.061400981	5.89916669
GP9	2.557279963	-0.870100439	4.196694628	2.95E-05	0.000511345	1.928929434	5.885969079
RNASE1	2.55571474	-0.995481463	3.945179656	8.54E-05	0.001214988	0.93720671	5.879586676
MID1	2.551055875	-1.481812181	5.107088035	3.93E-07	1.30E-05	6.009074827	5.860630473
ADCY1	2.548016769	-2.014271098	3.92290792	9.36E-05	0.001312225	0.852246321	5.84829777
CNTNAP2	2.545113335	-2.030704494	4.750533278	2.33E-06	6.00E-05	4.320207799	5.836539865
C16orf45	2.543670756	-1.582853603	4.932308084	9.54E-07	2.80E-05	5.166690569	5.830706713
LRRN3	2.541651736	-1.178669456	4.555697808	5.88E-06	0.000131676	3.446616618	5.822552474
RP11-354E11.2	2.538967787	-0.523534097	3.24165032	0.001228378	0.009899517	-1.520298784	5.81173043
NXN	2.538206289	-1.336806288	4.418416561	1.10E-05	0.000225134	2.852134224	5.808663632
ALOX12	2.536828917	-1.21632567	3.663903721	0.000261682	0.002943657	-0.101500405	5.803120623
PHF13	2.531199341	4.279713802	10.04862555	1.11E-22	9.16E-20	40.63930106	5.780520248
XK	2.521382562	3.669669128	4.327490653	1.66E-05	0.000314384	2.468006941	5.741320374
TIMP3	2.519822338	1.205357953	3.76478625	0.000176584	0.00215152	0.26246845	5.735114694
LUM	2.519516983	-2.564092647	3.795571582	0.000156324	0.001957189	0.375449259	5.733900951
C17orf67	2.518168232	1.129068961	11.01117378	1.14E-26	1.41E-23	49.59419013	5.728542929
AMHR2	2.5171109044	-2.325313466	5.765153563	1.09E-08	5.90E-07	9.428504251	5.72433873
AC130352.1	2.510620485	1.450994084	9.327676563	6.97E-20	3.94E-17	34.36844908	5.698651172
LPIN3	2.507900275	-2.079191541	3.795543185	0.000156342	0.001957189	0.375344635	5.687916456
FAM176C	2.506463801	-0.483646793	5.373884833	9.63E-08	3.91E-06	7.348435776	5.682255887
PDE3A	2.506315153	-0.232422216	3.528378682	0.000437475	0.004409693	-0.575310612	5.681670447
PTPRN	2.502748948	-3.379518	4.91381085	1.05E-06	3.03E-05	5.079170579	5.667643241
WASF3	2.491858321	-1.722664122	4.227573776	2.58E-05	0.000454235	2.054761067	5.62502037
NXF3	2.487624999	1.228290931	3.425704738	0.000638595	0.005946301	-0.922681028	5.608538979
PRKAB2	2.481220788	5.081760813	11.8676443	1.88E-30	3.72E-27	58.09269096	5.583697513
TDRD9	2.47800414	1.92388017	3.695834179	0.000231281	0.002668424	0.01266052	5.571261909
DMGDH	2.475838309	-1.600015515	6.08151885	1.70E-09	1.19E-07	11.20997092	5.562904386
ANK1	2.472932876	5.728609963	3.903107022	0.000101445	0.001393952	0.77710275	5.551712566
INMT-FAM188B	2.472200966	0.799274313	7.120735976	2.07E-12	3.13E-10	17.67513025	5.548896779
GYPA	2.471650556	2.419835942	3.274116864	0.001096941	0.009077867	-1.417224374	5.546780193
PARD3B	2.469436507	-1.478764864	3.230274372	0.001277778	0.010215512	-1.556177236	5.538274292
THRB	2.462552602	-2.10251953	4.395137214	1.23E-05	0.000245095	2.753056854	5.511911035
ADAM32	2.462287802	0.290318252	5.108084263	3.91E-07	1.29E-05	6.013956049	5.510899441
SLC6A9	2.458562014	1.745757502	4.541500204	6.28E-06	0.000138814	3.384326936	5.496685797
IGF2BP3	2.457461846	3.428461885	4.243873106	2.40E-05	0.00042858	2.121538821	5.492495742
FBN1	2.455966499	3.97778222	5.396302343	8.53E-08	3.51E-06	7.463903953	5.486805743
OR2W6P	2.455618401	-2.519480164	5.464120259	5.90E-08	2.54E-06	7.815974336	5.485482029
TTTY10	2.451311358	-2.4509656	2.906229177	0.003740296	0.02311344	-2.526235637	5.469130012
RP11-1055B8.3	2.449959769	-2.053670186	4.192360683	3.01E-05	0.000519675	1.911339908	5.464008654
HFM1	2.448150178	-3.358915695	3.898965451	0.000103169	0.00141567	0.761432253	5.457159374
OTUD7B	2.443328309	2.228346436	5.851473113	6.63E-09	3.85E-07	9.905788591	5.438950549
LEF1-AS1	2.442052152	-0.160256572	4.928351216	9.73E-07	2.85E-05	5.147942282	5.434141573
LINC00340	2.440158258	-0.806505683	4.067914715	5.12E-05	0.000806566	1.413753979	5.4270126
MLLT3	2.439832227	3.797386607	6.045131237	2.12E-09	1.44E-07	11.00057433	5.4257863
ERVH48-1	2.438247262	-3.796735666	5.040636261	5.52E-07	1.72E-05	5.685518722	5.419828731
RP11-1055B8.4	2.436638215	0.976680323	3.489366277	0.000505661	0.004936116	-0.708477209	5.41378733
FHL2	2.432750961	1.133229198	4.039970123	5.76E-05	0.000886712	1.304011409	5.399219841
GPR161	2.431243	-1.76663555	4.907036526	1.08E-06	3.13E-05	5.047196	5.393579316
TP63	2.429573116	-0.852672467	3.466198978	0.000550722	0.005287303	-0.786874189	5.387339994
BAI3	2.427758769	-4.090697323	4.384825428	1.29E-05	0.000253943	2.709330393	5.38056908
AC005082.12	2.423589549	-1.822156062	3.809730112	0.000147761	0.001867018	0.427710264	5.365042313
TMEM98	2.421648583	-3.090221117	3.836959177	0.000132522	0.001724001	0.528747012	5.35782917
FAM178B	2.41788364	-1.203759214	3.812335308	0.000146235	0.001851275	0.437346953	5.343865289
ABCB5	2.415152137	-3.409397205	4.653574915	3.71E-06	8.95E-05	3.881100056	5.333757141

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
AMPH	2.412548186	-3.283654858	4.336402525	1.60E-05	0.000304891	2.50531674	5.324138811
CTC-756D1.1	2.411940065	-3.340059885	4.421146166	1.09E-05	0.000222662	2.863784404	5.321895068
NOX5	2.409300132	-2.74596002	3.894282408	0.000105151	0.001438879	0.743732407	5.312165639
FAM188B	2.409071268	1.251439954	6.872264943	1.12E-11	1.43E-09	16.04505729	5.311323001
TPM1	2.408836621	3.207060741	6.222731664	7.22E-10	5.65E-08	12.03360231	5.310459213
BEST3	2.408800608	-3.71953983	4.558585901	5.80E-06	0.00013024	3.459310457	5.310326655
AL033532.1	2.403413753	-2.829712778	4.942829808	9.05E-07	2.66E-05	5.216613807	5.290535483
TAL1	2.403044002	4.713842273	4.123908694	4.04E-05	0.000658132	1.635849771	5.289179736
ESPN	2.400334726	-0.061905763	3.852476262	0.000124514	0.001639221	0.586637245	5.279256365
MDGA2	2.399344723	-3.828933768	4.00776649	6.59E-05	0.000990572	1.178450124	5.275634887
AK7	2.398449436	-1.698175924	5.244772706	1.92E-07	7.10E-06	6.692229392	5.272362024
LRRC16A	2.396975168	2.019663676	5.179848601	2.69E-07	9.52E-06	6.367951387	5.266977029
KIF5A	2.395941102	-2.077903041	4.878235166	1.25E-06	3.53E-05	4.911723171	5.263203226
ADCY10	2.395510254	-0.285660902	9.397699983	3.79E-20	2.34E-17	34.96058949	5.26163165
HBZ	2.39469313	-2.526920318	4.108617262	4.31E-05	0.000698233	1.574906443	5.258652374
ELOVL7	2.388850977	0.569424715	4.855288053	1.40E-06	3.90E-05	4.804330354	5.237400668
SOBP	2.377022551	-1.81899302	3.813782602	0.000145393	0.001845342	0.442703296	5.194635609
TUBAL3	2.373073046	-3.400120311	3.793463143	0.000157639	0.001969191	0.36768289	5.180434281
RP11-57I17.3	2.370335199	-3.367998981	4.563190506	5.68E-06	0.000128055	3.479564698	5.170612534
GATA1	2.367286489	2.531849959	4.066851142	5.15E-05	0.000808905	1.409563788	5.159697508
FKBP10	2.366846244	-1.654304004	3.827801851	0.000137473	0.00176406	0.494689735	5.158123244
PDE5A	2.364878574	-0.668460197	3.595826346	0.000339457	0.003607321	-0.341679314	5.151092954
PKIA	2.360132923	-0.245730678	4.6793503	3.28E-06	8.10E-05	3.996988097	5.134176608
RHEBL1	2.358901837	0.088296638	6.662783681	4.47E-11	4.86E-09	14.71160143	5.129797362
BRSK1	2.357316161	-0.626551682	5.918711944	4.48E-09	2.71E-07	10.28214718	5.124162262
TMEM56	2.355006737	2.499724612	3.653241555	0.000272642	0.003035887	-0.139406274	5.115966216
TFR2	2.351681009	3.839479456	5.049826257	5.27E-07	1.66E-05	5.730025702	5.104186376
RAB23	2.339017937	-1.052341678	4.797458096	1.86E-06	4.98E-05	4.535825355	5.059581073
NOG	2.33593368	0.850238749	4.784736434	1.97E-06	5.22E-05	4.477170126	5.048776034
ASIC4	2.335071857	-1.748850986	5.456412018	6.15E-08	2.65E-06	7.775749424	5.045760947
LEF1	2.332842611	4.031756762	5.212929197	2.27E-07	8.21E-06	6.532702747	5.037970279
ANKRD20A11P	2.330672262	-1.949552948	3.830598481	0.000135943	0.001752472	0.505082391	5.030397
KRT8P31	2.329890171	-3.188850372	4.27441628	2.10E-05	0.000383186	2.247339549	5.027670738
CHAC1	2.328097367	-0.063455649	4.457808887	9.23E-06	0.00019314	3.020933413	5.021426849
SLC40A1	2.32513329	4.811456413	4.289964092	1.96E-05	0.000363809	2.311711264	5.011120707
GOLGA8B	2.323885383	4.363525112	5.642772741	2.19E-08	1.09E-06	8.763185866	5.006788049
PLEK2	2.32332893	-1.244321015	3.69299212	0.000233846	0.002694876	0.002460262	5.004857283
ROR1	2.322001018	-2.8566247	4.010893779	6.51E-05	0.000978493	1.190600752	5.000252739
MAP9	2.315719909	0.172305411	5.27722908	1.61E-07	6.12E-06	6.855770532	4.978530295
COL25A1	2.309847851	-2.635158677	4.67285822	3.38E-06	8.33E-05	3.967741578	4.958307859
LY6G6D	2.302928877	-3.510699164	4.629399829	4.16E-06	9.84E-05	3.77296336	4.934585405
HMCN1	2.302319463	-1.985372695	4.648081378	3.81E-06	9.13E-05	3.856479824	4.932501407
DGKE	2.29503718	4.784195548	9.859451163	6.25E-22	4.76E-19	38.95683052	4.907666385
TMEM200A	2.290426875	-2.888689415	4.230363799	2.55E-05	0.000449137	2.066174123	4.892008379
SCHIP1	2.290378933	0.431959807	2.851555988	0.004441748	0.026344273	-2.679985149	4.891845816
KLF1	2.290218893	2.596586989	3.831862286	0.000135256	0.001750045	0.509781274	4.891303187
SLC30A4	2.286763039	0.18557242	5.307293879	1.38E-07	5.32E-06	7.008110583	4.879600508
SELENBP1	2.281113983	3.607480183	3.253463898	0.001178953	0.009588135	-1.482909475	4.860531167
AP000269.1	2.280660786	-2.515109671	4.800914011	1.83E-06	4.91E-05	4.551785045	4.859004559
GP1BA	2.276442953	0.489413036	3.722542156	0.000208434	0.002459327	0.108889053	4.844819619
APOC1	2.273336441	-1.408833591	4.040292361	5.76E-05	0.000886203	1.305272716	4.834398641
TMOD1	2.270093405	3.422396914	4.880282381	1.24E-06	3.50E-05	4.921327588	4.823543592
HOTTIP	2.269091476	-3.889571076	3.848866259	0.000126335	0.001656584	0.573149032	4.820194881
MPDZ	2.265867529	-3.087811866	3.582468642	0.000357063	0.003754096	-0.388291074	4.809435365
TRPV6	2.265310943	-0.659213908	3.992088746	7.04E-05	0.001042251	1.117674724	4.807580259
PLEKHG1	2.264540141	2.229555101	4.958288941	8.37E-07	2.49E-05	5.290147394	4.805012355
KLRC2	2.263495332	-1.78715933	4.733223273	2.53E-06	6.45E-05	4.241179701	4.801533797
SERpine2	2.261706967	1.670397952	4.447873227	9.66E-06	0.000200621	2.978222702	4.7955855
NFIA	2.260171039	1.988067197	4.01802187	6.32E-05	0.000953455	1.21833017	4.790482722
RP11-673E1.3	2.260037512	-2.024320258	4.702920844	2.93E-06	7.32E-05	4.103498447	4.790039363

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
RP11-178L8.5	2.259745535	-2.75760356	5.152801394	3.10E-07	1.07E-05	6.23398542	4.789070041
IFIT1B	2.259051084	1.902424885	2.844391696	0.004542021	0.026755869	-2.699919512	4.786765344
SLC22A23	2.255978918	2.785522205	4.161443069	3.44E-05	0.000577755	1.786367823	4.776582948
RP11-382A20.2	2.249958301	-3.342709117	4.365375019	1.40E-05	0.000273333	2.627120906	4.756690972
CREB3L1	2.249803484	-2.960477552	4.754874711	2.28E-06	5.91E-05	4.340071614	4.756180553
GJA4	2.247924913	-3.262635536	3.597695462	0.000337059	0.003587622	-0.335143554	4.749991437
TMEM136	2.245082251	-1.004385728	2.934659171	0.003416862	0.021579782	-2.44515214	4.740641351
GOLGA8A	2.241192457	5.077881049	5.787948637	9.58E-09	5.29E-07	9.553901562	4.72787685
RP5-1033H22.2	2.239254366	-0.130698164	4.475199724	8.53E-06	0.000179878	3.095912034	4.721529766
C6orf183	2.23815507	-0.481050789	6.110082749	1.43E-09	1.02E-07	11.37516043	4.717933454
GPC6	2.231067399	-3.959408815	3.234002905	0.001261388	0.010127191	-1.544431461	4.694812038
LANCL3	2.230603544	0.861171402	4.276300516	2.09E-05	0.00038107	2.255128763	4.693302806
AVPR1A	2.228767467	-3.752868279	4.091263037	4.64E-05	0.000740143	1.506006814	4.68733357
SPTB	2.228540563	5.023512872	3.378664769	0.000757012	0.006827257	-1.078484489	4.686596415
CD274	2.22613559	-0.412683005	5.452884789	6.27E-08	2.69E-06	7.757360632	4.678790366
CYP4F29P	2.225545428	-2.909926895	3.877271831	0.000112658	0.001517474	0.679613341	4.67687681
RHD	2.219465157	0.823982421	2.953791498	0.003213784	0.020599656	-2.390149494	4.657207482
C3orf80	2.216668655	-0.506800623	2.575770555	0.010146904	0.047588713	-3.411705146	4.648188754
RP11-79H23.3	2.216001017	-3.039459124	4.373635298	1.35E-05	0.000264757	2.661991054	4.646038202
ARHGEF25	2.215228305	-2.923152212	4.369130179	1.38E-05	0.000269294	2.642965177	4.643550437
FAM81B	2.2131881	-1.656162745	4.24313552	2.41E-05	0.000429331	2.118511607	4.636988344
DLX1	2.212885488	-3.513522984	4.180642324	3.17E-05	0.000541034	1.863868133	4.636015814
MET	2.211708291	-2.679265625	3.705744433	0.000222542	0.00258494	0.048288466	4.632234506
LDOC1	2.211313564	-3.082748036	4.434590857	1.03E-05	0.000212024	2.921268288	4.630967281
PRPH2	2.20847319	-3.010033747	3.992157308	7.04E-05	0.001042251	1.117940005	4.621858814
RP11-337N19.1	2.205837827	-2.747350997	4.564445943	5.64E-06	0.000127452	3.485090377	4.613423798
CCNL	2.203474795	-0.362072949	3.767105485	0.000174975	0.002137185	0.270948825	4.60587352
PHOSPHO1	2.19532531	1.790055003	3.367102494	0.000789094	0.007042758	-1.116458391	4.579929245
LINC00570	2.192863894	-2.677925385	3.474182379	0.000534787	0.005182091	-0.759916278	4.572121979
CR1L	2.191912134	0.213661889	3.773196922	0.000170816	0.002096879	0.293246552	4.569106701
TEAD2	2.188802971	-2.717978358	4.06384031	5.21E-05	0.000816	1.397707656	4.559270389
PAQR9	2.179489902	-0.745544064	3.143291537	0.001720699	0.012728023	-1.826428829	4.529933596
TBC1D8B	2.179195519	-1.922642005	3.418371478	0.000655843	0.006072612	-0.947108255	4.529009353
RP1-18D14.7	2.179154195	-3.6175148	4.141111755	3.75E-05	0.00061994	1.704673053	4.528879628
HEPH	2.170078248	-2.441840454	4.333185118	1.62E-05	0.000307788	2.491838462	4.500478025
JMY	2.169893018	5.511031593	5.922709566	4.38E-09	2.67E-07	10.30464922	4.49990024
SYN3	2.157536202	-2.84011892	4.531736709	6.57E-06	0.000143645	3.341599299	4.461522766
PLCH1	2.157109584	-0.154766023	3.525033292	0.000442967	0.004456014	-0.586786479	4.46020365
F2RL2	2.157037571	-3.654244138	3.813144871	0.000145763	0.001846489	0.440342852	4.459981021
HSPA1A	2.155838011	4.74665294	4.264761841	2.19E-05	0.000396533	2.207481089	4.456274215
SCG5	2.153717031	-0.38511997	5.674480867	1.83E-08	9.24E-07	8.934284544	4.44972763
PDGFD	2.149443722	0.065779352	3.450245227	0.000583901	0.005543979	-0.840564686	4.436566894
PRKG1	2.148604373	-3.86447121	3.832495137	0.000134914	0.001750045	0.512134809	4.433986487
MOV10L1	2.146218086	-2.615157847	4.549862937	6.04E-06	0.000134724	3.420994525	4.426658522
CAND2	2.145181465	0.15353055	4.288181298	1.98E-05	0.000365659	2.304318646	4.423478973
EPB41L3	2.144915471	0.650960051	3.192495906	0.001455311	0.011266134	-1.674440434	4.422663479
CTD-255A7.2	2.142351726	-2.607278734	3.99289355	7.01E-05	0.001040767	1.120788967	4.414811152
IL1A	2.140348797	-3.357777778	4.04778431	5.58E-05	0.000862124	1.334625236	4.408686213
MT1E	2.138481816	-1.539658642	3.463913398	0.000555365	0.005320441	-0.79458087	4.402984653
RGS16	2.138154847	-0.027077736	3.537127834	0.000423412	0.004296439	-0.545247785	4.401986884
CEACAM22P	2.136971684	-3.865265707	3.869413522	0.000116295	0.001555004	0.650084394	4.39837827
CACNA1E	2.136562751	-1.859693733	3.680001938	0.000245914	0.00280455	-0.044064864	4.397131722
TRIM15	2.135245392	-2.745677649	3.446080072	0.000592865	0.005615618	-0.85454225	4.393118429
KIAA1210	2.133776294	-4.685802682	3.908828901	9.91E-05	0.001374253	0.798779192	4.388647188
RGAG1	2.130880157	-3.625946486	3.920846989	9.44E-05	0.001321451	0.844408003	4.37984604
CA13	2.130779109	0.827749876	5.787021994	9.63E-09	5.31E-07	9.548795028	4.37953928
SLFN14	2.130089531	1.206669999	3.58384593	0.000355209	0.003736587	-0.383492833	4.377446453
RP11-48O20.4	2.128952498	-2.35768481	4.107410145	4.33E-05	0.000701255	1.570104841	4.373997809
KCNH2	2.128084499	3.200925109	3.555293668	0.000395553	0.004076464	-0.482596765	4.37136698
ZFP57	2.124974461	-3.314660115	2.555157704	0.010763711	0.049727188	-3.463451406	4.361953713

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
CLIC2	2.123120996	1.730767698	4.48682412	8.08E-06	0.000172366	3.146185466	4.356353404
ZC3H12B	2.121603264	-1.263903328	3.974776965	7.56E-05	0.001099918	1.050832702	4.351772879
BDNF	2.12107316	-2.821295129	3.269654281	0.001114201	0.00919762	-1.431451696	4.350174157
CMTM5	2.117787738	-1.821519157	2.929541742	0.003473129	0.021851451	-2.459804484	4.340278861
DSEL	2.11629312	-0.197084531	3.858903951	0.000121332	0.001604811	0.610683659	4.335784702
RP11-761E20.1	2.116063557	-1.668365798	2.613583229	0.009096861	0.043859547	-3.315714641	4.335094844
MEX3A	2.11425073	-0.731738982	3.644854607	0.000281565	0.003112476	-0.169147831	4.329650974
GBP5	2.113054881	5.367073913	5.923003131	4.37E-09	2.67E-07	10.30630222	4.326063618
ANKRD18DP	2.112399689	-2.438750788	3.616461038	0.00031385	0.003401922	-0.269342533	4.324099405
AMOTL1	2.111449502	3.870160467	4.131975836	3.90E-05	0.000640922	1.668089077	4.321252406
EGLN3	2.108291481	-1.531683378	3.803341476	0.000151569	0.001909033	0.404105583	4.311803647
TMEM45A	2.108017024	-1.910196817	3.441434242	0.000603015	0.005686169	-0.870113445	4.310983451
MAST1	2.104279333	-0.749820345	5.152549796	3.11E-07	1.07E-05	6.232742357	4.29982914
SERPINI1	2.103369805	0.33567538	5.123325748	3.61E-07	1.21E-05	6.088747322	4.297119224
CSDC2	2.103348209	-3.552662914	3.85974585	0.000120921	0.001600445	0.613836139	4.2970549
ABHD15	2.10334132	4.360212115	7.148875744	1.71E-12	2.60E-10	17.86302867	4.297034381
RP11-397A16.2	2.099307597	-3.126725536	3.897626026	0.000103732	0.001421429	0.756367712	4.285036809
AC006370.2	2.091132346	-3.204405003	3.094679954	0.002026025	0.014404946	-1.97431449	4.260823664
LRRC2	2.084889735	-1.135019076	3.95653076	8.15E-05	0.001170506	0.980687145	4.242426705
RP3-522J7.6	2.082320673	-1.642003654	6.61702141	6.02E-11	6.30E-09	14.42530722	4.234878777
LEPR	2.081449399	3.685242542	7.636923519	5.27E-14	1.15E-11	21.22717237	4.232322017
ACVR2B-AS1	2.076405704	-2.591688088	4.589602844	5.02E-06	0.000114832	3.596122743	4.217551556
SLC22A17	2.07279714	-1.204432475	3.938033386	8.80E-05	0.001245539	0.909894954	4.207015518
PRL	2.071360796	-3.896839468	3.052308235	0.002331972	0.016028697	-2.101373886	4.202829108
ARHGEF26	2.071113239	-3.085316814	3.643526282	0.000283003	0.003124882	-0.173852199	4.202107992
SGIP1	2.067905519	-1.099189215	4.421165669	1.09E-05	0.000222662	2.863867672	4.192775312
PGF	2.059539259	-0.666914304	3.81477336	0.000144819	0.001841607	0.446371165	4.168531564
AC093415.2	2.057377813	-1.493499121	4.114211468	4.21E-05	0.000683475	1.597176545	4.162290945
H2AFY2	2.054661929	-0.174371078	2.975620563	0.002995574	0.019450952	-2.326965422	4.154462773
MATN2	2.053484574	-0.167064049	3.62887428	0.000299331	0.003270489	-0.225632723	4.151073778
APBA2	2.047372494	3.364239722	4.504377079	7.46E-06	0.000160714	3.22233591	4.133524662
RP3-508I15.9	2.046716758	-0.466120567	5.71482538	1.46E-08	7.62E-07	9.153281842	4.131646312
ARHGEF37	2.046314788	0.920126335	4.144384248	3.70E-05	0.000612839	1.71779643	4.130495294
HRK	2.046053805	-2.534002881	3.629562325	0.000298545	0.003263702	-0.223205699	4.129748156
SOX5	2.044319294	-0.999453868	3.372708107	0.000773385	0.006943274	-1.098063794	4.124786062
PDZRN4	2.038457986	-3.684827548	3.063466753	0.002247536	0.0156255	-2.068079644	4.108062087
CACNA2D1	2.036737166	-3.858464578	3.751954582	0.000185738	0.002235524	0.215640617	4.103164988
KLRC3	2.036263423	-1.144807706	4.361858965	1.43E-05	0.000276405	2.612297375	4.101817837
NHLRC1	2.035147024	-0.744951038	5.022579428	6.05E-07	1.87E-05	5.598293891	4.098644961
GCNT4	2.034050515	-0.371033428	4.191126878	3.03E-05	0.000522004	1.906335652	4.095531003
MINPP1	2.03221541	3.420999643	5.530434584	4.10E-08	1.86E-06	8.164234451	4.090324807
THEM5	2.03214949	-2.927392703	3.534941671	0.000426886	0.004325034	-0.552766424	4.090137914
RP11-342M1.6	2.031297863	-3.702586314	3.551223472	0.000401642	0.004126318	-0.496661392	4.087724207
RP11-57H12.2	2.027408031	-2.766243938	3.713934291	0.000215555	0.002522286	0.077801471	4.076717624
FBLN1	2.027382284	-2.578613036	3.248663595	0.00119881	0.009709721	-1.498118213	4.076644868
GCSAML-AS1	2.026216946	-4.59136215	3.87832002	0.000112181	0.001514143	0.683556485	4.073353287
HSPA1B	2.025984114	4.647906854	3.590091546	0.000346914	0.003672755	-0.361711615	4.072695952
CLIC5	2.025661612	-2.578708534	4.402787601	1.19E-05	0.000238452	2.78556159	4.07178564
TTC39A	2.025130067	-0.091479841	5.139404586	3.32E-07	1.13E-05	6.167876287	4.07028571
DNM3	2.024998513	2.031862074	4.543690625	6.22E-06	0.00013787	3.393924899	4.069914573
EGF	2.021337815	-0.599254669	3.440939798	0.000604105	0.005689683	-0.871769439	4.059600652
STK33	2.020505863	-1.559037624	3.709963592	0.000218916	0.002554064	0.063484735	4.057260297
SLC30A10	2.018226399	-3.374286556	3.660915006	0.000264711	0.00297267	-0.112136648	4.050854872
ANO2	2.016722322	-2.764912575	3.577732144	0.000363509	0.003805573	-0.404778535	4.046633866
MAGI2-AS3	2.015921771	-2.562310956	3.277773606	0.001082983	0.008988672	-1.405552037	4.044389013
TUBB1	2.015402659	2.027089076	3.264656084	0.00113383	0.009312759	-1.447364091	4.042934019
ULBP1	2.01413976	-3.109566588	4.083848179	4.79E-05	0.00076131	1.476654287	4.039396484
SLC7A11	2.010924173	2.709744653	3.522199802	0.000447668	0.004478266	-0.596498048	4.0304032
CXCL5	2.01023643	-3.417098961	3.699589791	0.000227931	0.002637474	0.026151252	4.028482338
ARHGEF28	2.007566372	-2.535119	4.148487099	3.64E-05	0.000603711	1.734263845	4.021033546

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
CDKN2A	2.007373111	1.885128221	4.099466966	4.48E-05	0.000720682	1.538542893	4.020494931
HTR2A	2.004339709	-4.08019305	3.992793073	7.02E-05	0.001040767	1.120400132	4.012050343
MSX2	1.998806827	-4.35648433	3.733631626	0.000199587	0.002369061	0.149042111	3.99669319
AC003102.1	1.998449978	4.885157213	2.673186357	0.00763805	0.038613718	-3.161607424	3.995704735
CLEC4D	1.997965949	1.049134924	2.911272743	0.003680958	0.022853819	-2.51190777	3.994364387
RP11-594N15.3	1.996022213	-2.560960233	3.990163018	7.09E-05	0.001048259	1.110225455	3.988986424
DLX2	1.993511394	-2.315465956	3.553200352	0.000398674	0.004102214	-0.489832211	3.982050161
RP11-281P23.1	1.99318307	-3.676036401	3.638820944	0.000288153	0.003174661	-0.190503107	3.98114404
PLXDC2	1.992590027	4.605801005	3.687240759	0.000239118	0.002744452	-0.018158247	3.979507864
EPHX2	1.991868328	0.32097396	4.23321711	2.52E-05	0.00044397	2.077853575	3.977517637
PID1	1.991392922	-1.705666093	3.062289455	0.002256311	0.015670628	-2.071598033	3.976207156
ANKRD53	1.989835635	-1.884023206	5.258187966	1.79E-07	6.70E-06	6.759710673	3.971917439
TMEM184A	1.988660269	-3.034634103	3.821063847	0.000141227	0.001801719	0.469680644	3.968682829
RAG1	1.987416821	-0.027603224	3.58571597	0.000352706	0.003720145	-0.376975052	3.965263724
ANKRD31	1.985579083	-1.516410398	4.94743328	8.84E-07	2.61E-05	5.23848806	3.960215897
RP11-390F4.3	1.98471658	-0.718032321	4.075404845	4.96E-05	0.000786462	1.44329307	3.957849023
CD40LG	1.982825838	-0.364455583	4.385538706	1.28E-05	0.000253381	2.712351826	3.952665413
RP11-277P12.6	1.981492463	-1.121610976	4.265303194	2.19E-05	0.000396533	2.209713776	3.949013946
RP11-1299A16.3	1.979153697	-1.630168988	3.821850906	0.000140784	0.00179722	0.472599725	3.942617351
FAM108A6P	1.979034989	-0.699267045	3.26343234	0.001138685	0.009341277	-1.451256407	3.942292957
TLCD1	1.979022183	-1.474586969	6.264025509	5.60E-10	4.49E-08	12.27774923	3.942257964
CDKN2B	1.975571941	-2.165032837	3.350887706	0.000836217	0.007373539	-1.169498293	3.932841217
ESR2	1.975480039	-0.206060859	5.503027926	4.76E-08	2.10E-06	8.019825664	3.932590697
C3orf67	1.969783121	-1.621765961	4.171480011	3.29E-05	0.000559	1.826840332	3.917092292
FN3K	1.969652309	1.439315929	4.594593401	4.90E-06	0.000113001	3.618218491	3.916737139
NFATC4	1.968428847	-2.109675778	3.192498257	0.001455299	0.011266134	-1.674433115	3.913417
OSBP2	1.966748384	3.695973423	3.29013983	0.001036991	0.008701839	-1.365984585	3.908861273
FBXW11P1	1.966646714	-1.956172611	6.066535241	1.86E-09	1.28E-07	11.12360504	3.908585817
TUBB4A	1.956958764	-2.347438823	3.194301301	0.001446334	0.011231031	-1.668819744	3.882426909
MOBP	1.95588275	-3.387673579	3.9735186	7.60E-05	0.001103285	1.045985027	3.879532334
HBQ1	1.955848751	-0.832950314	3.16675729	0.001589019	0.011996151	-1.754233386	3.879440907
RP11-342M1.7	1.9553968	-3.633846665	3.335248326	0.000884133	0.007683063	-1.220418979	3.878225792
SYDE1	1.955142813	-2.995049385	3.39509767	0.000713499	0.00651045	-1.024295291	3.877543089
TOB2	1.953714651	5.948960377	9.582814887	7.45E-21	5.46E-18	36.54367909	3.873706504
SNX18P13	1.948916257	-3.190643145	3.533034805	0.000429938	0.004349271	-0.559320812	3.860843985
HIST1H3E	1.94835527	-0.200359918	4.036790773	5.84E-05	0.000896518	1.29157196	3.859343001
AC055876.1	1.947762482	-3.836509045	2.82568953	0.004813531	0.027794686	-2.751725147	3.857757564
CCDC162P	1.94721488	-0.923013526	3.989101871	7.12E-05	0.00105053	1.106122122	3.856293558
PLEKHG4B	1.945815354	-3.857806674	3.287785626	0.001045605	0.008759262	-1.373528416	3.852554468
ITGA2	1.944502017	-1.01828095	2.907256874	0.003728135	0.023067106	-2.523318113	3.849048945
CD36	1.944225917	5.264663975	3.627324375	0.000301108	0.003286284	-0.231098248	3.848312393
GUSBP5	1.943455765	0.44097674	5.356305205	1.06E-07	4.25E-06	7.258203345	3.846258602
SMPDL3A	1.942584249	-0.820003748	2.972808685	0.003022902	0.019585513	-2.335130015	3.843935822
AC010745.4	1.940884065	-3.866515568	3.292950648	0.001026792	0.008627236	-1.35697066	3.839408496
RP11-730A19.6	1.940542931	-2.313588603	2.827405022	0.004788027	0.027685768	-2.746987177	3.838500752
EPOR	1.9386555783	3.063125319	4.894956128	1.15E-06	3.28E-05	4.990281086	3.833483003
SLC4A1	1.932014048	7.234840768	2.593675292	0.009636923	0.045717043	-3.366424494	3.81587536
ARHGAP5-AS1	1.929894568	-2.04731185	3.61638695	0.000313939	0.003401922	-0.269602979	3.810273527
RP11-501J20.5	1.928949269	-3.050591735	3.721409158	0.000209359	0.002466745	0.104793198	3.807777736
RP4-737E23.2	1.928405758	-3.370657322	3.329420795	0.00090263	0.007799275	-1.239333464	3.806343489
CCDC74B	1.92653196	-2.165188181	3.929029396	9.13E-05	0.00128524	0.875551603	3.801402952
EPT1	1.924852457	5.606698855	12.36424784	9.67E-33	2.73E-29	63.23726897	3.79698015
LHFP	1.924637119	0.119094444	3.085759275	0.002087192	0.014760283	-2.00120753	3.796413453
RP11-384P7.7	1.922629131	-3.089087402	2.713058419	0.006783148	0.035488672	-3.056604796	3.79113316
RP5-877J2.1	1.922621966	1.91980299	3.937421083	8.82E-05	0.001247128	0.907557074	3.791114332
ZFP112	1.922299531	-2.199049699	3.03701264	0.002452444	0.01668151	-2.146818479	3.790267131
RAB38	1.922109472	0.806305953	5.022028208	6.07E-07	1.87E-05	5.595635855	3.789767839
SHOX2	1.921923397	-3.167539424	2.932915031	0.003435946	0.021679545	-2.450148824	3.789279078
GSTM5	1.917744768	-1.025647007	3.043417694	0.002401319	0.016407076	-2.12781574	3.778319669
RP11-318E3.4	1.916123854	-1.463475569	6.54841236	9.36E-11	9.31E-09	13.99945883	3.774076992

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
TRPV3	1.915884753	-0.411777817	3.843056552	0.000129319	0.001689153	0.551467718	3.773451557
ARHGAP39	1.914052488	-1.985508655	3.513922006	0.000461672	0.004589648	-0.624825964	3.768662205
DVL2	1.912394677	5.168496033	16.51086716	3.12E-54	3.08E-50	111.5928831	3.764334096
RP11-145F16.2	1.912053972	0.672857149	5.262646199	1.74E-07	6.56E-06	6.782172463	3.763445219
PHLDB1	1.909496127	2.134016699	4.200158401	2.91E-05	0.000504162	1.942999929	3.756778683
KCNJ2	1.908288594	-1.374800795	2.901158873	0.003800824	0.02336344	-2.54061485	3.753635558
PBK	1.906008053	-0.392742669	3.523430323	0.000445621	0.004469748	-0.592281469	3.747706706
SEPP1	1.905479158	2.04201751	2.658208884	0.007983389	0.039969794	-3.200654679	3.746333041
PURG	1.900558264	-3.37829891	3.261246608	0.001147404	0.009397218	-1.458204932	3.733576429
BEX2	1.894534342	0.518048388	3.574297617	0.000368251	0.003849224	-0.416720626	3.718019514
AQP1	1.890007578	3.500329911	3.651016176	0.000274984	0.003056798	-0.147304333	3.706371717
WHAMMP2	1.88817686	2.232506648	2.753461999	0.006005672	0.0326004	-2.948640766	3.701671473
CTB-114C7.3	1.883971255	-1.75552509	4.561370374	5.72E-06	0.000129	3.471556156	3.690896431
FAM40B	1.883094341	1.817307576	4.187704199	3.07E-05	0.000527496	1.892460869	3.688653672
ABLIM1	1.882678544	5.460314111	4.82111329	1.65E-06	4.52E-05	4.645286068	3.687590724
RAPGEF5	1.882659186	-0.426410351	3.284088351	0.001059267	0.008840028	-1.38536534	3.687541246
KCNJ12	1.879567405	-1.583022501	3.17372557	0.001551744	0.011816714	-1.732693286	3.679647088
PTK2	1.877933669	3.582866748	3.861770111	0.000119938	0.001590629	0.621418685	3.675482543
LGR4	1.876999269	1.539307749	3.189452817	0.00147056	0.011361953	-1.683907363	3.673102789
TSPAN5	1.87395873	2.726595603	3.77782409	0.000167719	0.002063843	0.3102077	3.665369725
STXBP6	1.872889261	-2.573883664	2.702160956	0.007007809	0.036388935	-3.085455214	3.662653596
MT1G	1.866890632	-3.619668406	3.337828553	0.000876056	0.007637409	-1.212033982	3.647456145
TMEM163	1.865065429	-0.522271856	3.134751371	0.001771066	0.013008198	-1.852573186	3.642844541
C10orf10	1.863773865	1.850125812	3.244105593	0.001217951	0.009832555	-1.51253894	3.639584765
CD46P1	1.861335672	-2.384476757	3.696143203	0.000231003	0.00266678	0.013770078	3.633438965
RP11-121L10.3	1.860577543	-0.940013878	6.034254889	2.26E-09	1.53E-07	10.93821129	3.631530114
AC010507.5	1.860345365	-2.753720065	3.575027924	0.000367238	0.003840663	-0.414182234	3.630945724
RGS22	1.857430109	-3.165846499	4.011119217	6.50E-05	0.000978318	1.19147701	3.623616075
CRISP2	1.851286061	-3.416068802	3.084533267	0.00209573	0.014810075	-2.004897608	3.608216889
MYLK4	1.848749704	2.093362326	4.871175188	1.29E-06	3.64E-05	4.878631029	3.601878967
TCL1A	1.847716796	-0.563767996	3.180885507	0.001514285	0.011609124	-1.710512444	3.599301099
LRRC49	1.846403173	-3.080286265	3.124421898	0.001833799	0.01335003	-1.884102089	3.596025304
C12orf39	1.846099611	-2.024582027	3.270240061	0.001111921	0.009182631	-1.429585232	3.595268734
SLC2A4	1.845065558	0.582334879	3.097852364	0.002004673	0.014292692	-1.964732326	3.592692745
TTC12	1.838538321	0.977526121	4.392918605	1.24E-05	0.000246318	2.743640655	3.57647491
BBS12	1.836848876	0.134185707	6.344465308	3.40E-10	2.84E-08	12.75761507	3.57228919
ARHGAP11A	1.835280639	5.078836065	7.219003804	1.05E-12	1.66E-10	18.33419473	3.568408152
AK4	1.834995145	1.641448075	3.253094051	0.001180472	0.009594481	-1.484082038	3.567702071
MST1R	1.832730693	-1.002169792	4.03337593	5.92E-05	0.000907324	1.278221674	3.562106603
SLC9A9	1.831281158	1.86447895	3.891884405	0.00010618	0.001448951	0.734676987	3.558529407
AC009237.1	1.830511303	-2.967686534	3.268073203	0.001120376	0.009232133	-1.436487833	3.556631
FAM171A2	1.829090706	-0.014350563	3.904775753	0.000100758	0.00138934	0.783421299	3.553130572
AKR1C1	1.828951976	2.039060854	4.150149456	3.61E-05	0.000600882	1.740940444	3.552788918
CPEB2	1.827001407	5.13946125	4.18914793	3.05E-05	0.000525122	1.898312103	3.54798868
NEFH	1.826690602	-1.396835545	2.794049414	0.005306534	0.029852616	-2.838603838	3.547224407
AC104820.2	1.826611681	-1.398764212	4.593841874	4.92E-06	0.000113137	3.614889627	3.547030366
FAM20A	1.826571029	-1.807071444	2.652620934	0.008115777	0.040450095	-3.21516745	3.546930419
ANKRD13B	1.826393455	2.267957833	5.793393987	9.28E-09	5.15E-07	9.583925137	3.546493872
Z95704.2	1.820027425	-0.367758225	2.881241701	0.004047319	0.024538027	-2.596860429	3.530879104
SLC35G1	1.818462619	-0.753182567	3.121779716	0.001850171	0.013444484	-1.892150505	3.527051445
ART4	1.816249808	-0.54519427	2.667240644	0.007773503	0.039139846	-3.177134165	3.521645788
RP11-90D4.2	1.816094454	-0.662098323	3.605685762	0.000326987	0.003516338	-0.307166506	3.521266587
UBN2	1.815323129	6.448902298	12.67833315	3.19E-34	1.07E-30	66.5699756	3.519384473
MEIS3P2	1.814711985	-3.338669605	3.30694446	0.000977389	0.008307217	-1.311982336	3.517893934
LRRC32	1.814569821	-0.303770625	3.331665388	0.000895463	0.00775428	-1.23205199	3.517547295
RP11-136K14.1	1.814015276	-2.547552568	3.906775421	9.99E-05	0.001379996	0.790996368	3.516195474
MAP3K13	1.809508459	1.024141225	3.825081773	0.000138977	0.001777596	0.484588622	3.505228414
PFKM	1.809249465	2.767970659	5.66130592	1.97E-08	9.90E-07	8.863082904	3.504599658
ABCB6	1.802303656	3.25294128	4.478493456	8.40E-06	0.00017813	3.110144133	3.487766979
AKAP6	1.802218264	-0.071150266	4.177528199	3.21E-05	0.000546473	1.851274179	3.487560548

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
RHCE	1.798241133	1.536051451	3.12094229	0.001855388	0.013477195	-1.894700017	3.477959499
EPB42	1.7969592	3.829446567	2.658137392	0.007985071	0.039969794	-3.200840545	3.474870467
SLC9C1	1.796769715	-2.439567847	3.324486955	0.000918571	0.00790594	-1.255322015	3.474414105
SLC7A3	1.7962344	-3.545032563	3.347006782	0.000847877	0.007443185	-1.182156014	3.473125155
HIST1H2BH	1.795758213	5.312294217	4.542969596	6.24E-06	0.000138023	3.390765013	3.47197898
TSKS	1.794553593	-1.04857884	2.879501912	0.004069526	0.024634748	-2.601755462	3.46908116
RP11-53O19.1	1.792496972	-2.382654769	4.625399442	4.24E-06	1.00E-04	3.755121326	3.464139365
C15orf26	1.790879207	-1.428744386	3.280943377	0.001071018	0.008911785	-1.395423802	3.460257033
FAM83F	1.788722375	-0.222423588	3.521530065	0.000448786	0.004484916	-0.59879241	3.455087806
VWF	1.785353469	2.946009601	3.034298113	0.002474411	0.016748349	-2.154860179	3.447029077
ZNF442	1.780974786	-0.018672428	4.617914908	4.39E-06	0.000102938	3.721779357	3.436582958
LEFTY2	1.780677432	-3.470107835	3.496735351	0.000492065	0.004812899	-0.683433875	3.435874718
PCDHB13	1.775965285	-2.358534442	2.90712491	0.003729694	0.023069278	-2.523692802	3.424670732
CTD-2538C1.2	1.771128113	-0.943963583	5.555625269	3.56E-08	1.65E-06	8.297560854	3.413207476
PPFIA3	1.768852721	0.263639463	4.138932679	3.79E-05	0.000624712	1.695940055	3.407828472
CRNDE	1.767915941	1.895194412	3.667731131	0.000257849	0.002907154	-0.087867083	3.405616397
EML5	1.766345407	0.170979606	4.670021705	3.43E-06	8.42E-05	3.954975392	3.401911022
GPR20	1.762758807	-3.581895726	3.435480707	0.000616259	0.005779961	-0.890037641	3.393464233
SALL2	1.762597021	-0.386699313	3.266411004	0.001126902	0.00926767	-1.441779793	3.393083707
C7orf63	1.76252854	-2.452338001	3.316774645	0.000944012	0.008075735	-1.280268017	3.392922649
PKIG	1.76178669	3.215169709	5.946493751	3.80E-09	2.36E-07	10.43881899	3.391178418
NDRG4	1.760220829	-2.281784039	3.610034449	0.000321624	0.00346811	-0.291914725	3.387499724
ZFPM2	1.759269848	-2.731859684	2.683467942	0.00740881	0.03775383	-3.134677526	3.385267523
LRRC8E	1.758016967	-3.225053482	3.267986695	0.001120715	0.009232133	-1.436763315	3.382328928
INPP5J	1.756857411	-2.007315167	2.681458727	0.007453116	0.037903297	-3.139948142	3.379611496
DMD	1.756738233	-0.258568493	3.329766676	0.000901522	0.007793105	-1.238211736	3.379332326
CHST7	1.754895017	2.32116109	5.502529439	4.78E-08	2.11E-06	8.017205316	3.375017579
MORN4	1.754870789	-1.730065723	3.737386233	0.000196672	0.002341488	0.162663191	3.374960902
MICALCL	1.753495278	2.279691112	4.845822047	1.46E-06	4.08E-05	4.760169801	3.371744641
GNAZ	1.753226524	-0.570770373	3.289351174	0.001039869	0.008718597	-1.36851235	3.371116591
SORBS1	1.749811158	2.747033031	4.400442829	1.20E-05	0.000240017	2.775593423	3.363145413
GPR98	1.744517458	-1.119274166	3.54870975	0.000405446	0.00415892	-0.505339761	3.350827591
VNN3	1.743871648	0.734082121	2.698699065	0.007080567	0.036647442	-3.094596438	3.349327959
MPZL1	1.743392584	4.955008867	6.39785879	2.43E-10	2.13E-08	13.07924522	3.348215959
FAM127A	1.740658371	0.831299119	2.907029885	0.003730818	0.023069278	-2.523962598	3.341876388
HEMGN	1.740178455	3.956282851	2.708278735	0.006880875	0.035848308	-3.06927282	3.34076489
KLHL14	1.739351662	-0.714179477	3.467087872	0.000548926	0.005282878	-0.783875611	3.338850882
IGLV6-57	1.738868503	-1.54117999	3.470510031	0.000542063	0.005234649	-0.772324375	3.337732887
ANKRD9	1.736695978	3.360709318	4.808742385	1.76E-06	4.74E-05	4.58797762	3.332710446
OSR2	1.735769384	-2.682424049	3.400689575	0.000699231	0.006411348	-1.005796859	3.330570647
CYP4A22-AS1	1.728997722	-2.080265101	4.350539671	1.50E-05	0.000289274	2.56465372	3.314974384
RNF168	1.727899242	6.42328594	11.57380829	3.94E-29	5.57E-26	55.12266751	3.312451294
RP4-730K3.3	1.72735129	0.208412898	6.471720601	1.53E-10	1.45E-08	13.52825145	3.311193426
AC013718.1	1.721713301	-2.835097003	3.073844705	0.002171534	0.015226133	-2.037007477	3.29827868
SOWAHC	1.718697781	-2.677871353	3.009944807	0.002679704	0.017805007	-2.226690472	3.291391821
PTGS1	1.718620547	5.354225248	5.254668231	1.82E-07	6.79E-06	6.741989989	3.291215623
FAM108A5P	1.714597903	-3.764711571	3.546654423	0.000408581	0.004178086	-0.512431116	3.282051559
DENND5B	1.71397352	3.889797839	4.75181569	2.32E-06	5.98E-05	4.326073551	3.280631431
LRRN4CL	1.713470902	-1.703643791	3.826075263	0.000138426	0.001773987	0.488277177	3.279488695
AC091878.1	1.712216498	-3.305853666	3.500758305	0.000484788	0.004762909	-0.669740384	3.276638462
E2F5	1.711374991	1.850198237	5.330467258	1.22E-07	4.75E-06	7.126088509	3.274727795
HIST2H3DP1	1.708329314	-3.846256444	3.254073203	0.001176454	0.009579627	-1.480977451	3.267821802
RP11-925D8.5	1.707837172	-2.232953059	2.76115153	0.005867155	0.032087726	-2.927915288	3.266707251
RP1-152L7.5	1.70750689	-2.473851002	4.178006961	3.20E-05	0.000545814	1.853209768	3.265959477
ZNF287	1.707304645	-1.126875356	3.979160799	7.42E-05	0.001082601	1.06773242	3.265501667
ZNF154	1.706092315	2.628206171	3.498160163	0.000489476	0.004794686	-0.6785858	3.262758743
CCDC113	1.70498015	-0.749850326	4.33918654	1.58E-05	0.000301975	2.516987231	3.260244472
RNF144A-AS1	1.704466316	-1.044370889	3.157897339	0.001637605	0.012283279	-1.781553987	3.259083501
RNF103	1.704384057	6.753806978	7.970192393	4.38E-15	1.12E-12	23.63734319	3.258897681
GDPD1	1.702838116	1.060354308	5.908404217	4.76E-09	2.86E-07	10.22419165	3.255407433

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
RGMB	1.700432191	-0.225948189	3.831530034	0.000135437	0.001750045	0.508545802	3.249983044
PPIAP19	1.700414064	-3.030631989	3.779685942	0.000167148	0.002061946	0.313369095	3.249942208
SDR42E1	1.698982062	-2.09105712	3.594706015	0.000340902	0.003616848	-0.345595203	3.246717955
RAB6B	1.697748738	1.849704256	2.83632455	0.004657385	0.027172566	-2.722307002	3.243943602
CXCL11	1.697168522	-3.665681801	3.236009381	0.001252649	0.01006749	-1.538105093	3.242639231
FAM132B	1.695263455	0.745692651	2.623608859	0.008835268	0.042943611	-3.290032439	3.23836018
SOX6	1.69484625	2.418300979	2.761633007	0.005858578	0.032049679	-2.926615678	3.237423832
TECTA	1.692162521	0.322992545	4.789167373	1.93E-06	5.14E-05	4.497582815	3.231407111
KREMEN1	1.689523229	1.820868582	3.296753525	0.001013143	0.008535389	-1.344763354	3.225500922
SLC12A3	1.688801264	-2.122215802	2.838933306	0.004619791	0.027060926	-2.71507417	3.223887195
SPESP1	1.685689851	-3.111952582	3.275609821	0.001091223	0.009049465	-1.412460389	3.216941836
EPST1	1.685427947	3.225847665	3.84303325	0.000129331	0.001689153	0.551380818	3.21635789
ZNF502	1.6840002	-0.862775576	3.395569646	0.000712285	0.006506915	-1.022735107	3.213176433
RP11-792D21.2	1.682327234	-1.005855151	3.507816235	0.000472263	0.004671157	-0.645679229	3.209452556
ARHGAP22	1.681905145	1.510348857	3.083688385	0.002101632	0.014832608	-2.007439727	3.208513704
COLEC12	1.679518437	-2.036819252	2.694989432	0.007159284	0.036919667	-3.104379019	3.203210119
ZNF418	1.678707816	1.731308276	3.489090059	0.000506177	0.00493872	-0.709414918	3.201410807
GAL	1.676890933	-2.781332462	3.272387583	0.0011036	0.009125338	-1.42273981	3.197381592
FAM109B	1.672924888	1.145275844	4.023324764	6.18E-05	0.000935426	1.238990173	3.188603892
TCL6	1.67205637	-0.716016457	3.105476244	0.001954203	0.01403041	-1.941665282	3.186684895
ASPG	1.671129347	-4.032378846	3.353216643	0.000829291	0.00732553	-1.161895532	3.184637907
AMH	1.670877655	1.179857762	5.045080967	5.40E-07	1.69E-05	5.707034748	3.184082363
CACHD1	1.670298485	1.310273333	3.164781385	0.001599738	0.012058669	-1.760332796	3.182804369
C1orf53	1.668823192	-2.403013106	4.056815088	5.37E-05	0.000836536	1.37007656	3.179551313
BCAR1	1.668205797	-1.911904368	3.12208037	0.001848301	0.013440769	-1.891235013	3.17819093
DTX1	1.666722037	1.003160869	3.042480228	0.00240874	0.016446424	-2.130599501	3.174923955
KLHDC8B	1.665633584	1.773967882	5.063351006	4.92E-07	1.57E-05	5.795665652	3.172529511
RFESD	1.66273784	1.451281379	3.989211656	7.12E-05	0.00105053	1.1065466	3.166168069
MEIS1-AS2	1.662601902	-3.67555121	3.077472174	0.00214553	0.015070502	-2.026122328	3.165869751
GNG11	1.659949915	-1.401453223	2.648527876	0.008213993	0.040786269	-3.225778661	3.160055539
LYSMD1	1.658024763	-0.273670325	5.221754429	2.16E-07	7.90E-06	6.576822607	3.155841531
ATP2B2	1.658000075	-2.721854325	2.866754191	0.004235651	0.025474418	-2.637533496	3.155787527
AGAP1	1.657495364	0.702670153	3.488705275	0.000506897	0.004940873	-0.710721066	3.154683703
RP11-229C3.2	1.657164932	-2.303624622	3.70681031	0.00022162	0.00257808	0.052125879	3.153961243
WLS	1.656511708	-2.023330072	2.733925512	0.006370966	0.033979058	-3.001041218	3.152533514
TGM2	1.656063442	2.784087158	3.129578949	0.001802228	0.013163782	-1.868373843	3.15155413
RP11-550F7.1	1.652898362	-2.151277433	3.850657226	0.000125428	0.001649067	0.579839169	3.144647619
MTUS2-AS1	1.652360129	-3.079094551	3.284406034	0.001058086	0.008836482	-1.384348781	3.143474651
PLEKHA4	1.651638282	-0.540527436	4.168864029	3.33E-05	0.000563462	1.816282701	3.141902219
SIAH2	1.650033762	5.974813809	6.996600538	4.85E-12	6.76E-10	16.85421251	3.138409835
COL15A1	1.648939969	-1.885350003	3.096025458	0.002016944	0.014345532	-1.970251614	3.136031321
C3orf27	1.646942945	1.028059095	3.23119232	0.001273725	0.010194331	-1.553286708	3.131693331
CD109	1.644802202	4.134345291	2.890676411	0.003928798	0.023968766	-2.570264523	3.127049816
IL15	1.643407487	0.638135482	3.419672129	0.000652753	0.006052493	-0.942779491	3.124028222
RP11-1021N1.1	1.642906673	-1.738885938	2.705767623	0.006932724	0.036089926	-3.075919429	3.122943944
RP11-317F20.2	1.642001058	-2.032248985	3.691683703	0.000235035	0.002703864	-0.002233132	3.120984209
CTDSPL	1.641608587	2.970410794	3.709632129	0.000219199	0.002555857	0.062290288	3.120135293
FAM227A	1.640223679	0.449982099	4.62741061	4.20E-06	9.91E-05	3.764089443	3.117141571
GZMB	1.637684265	-0.110693476	3.202054529	0.001408358	0.010992972	-1.644646446	3.111659643
ZFYVE28	1.635277363	1.635301632	4.664123986	3.53E-06	8.61E-05	3.92845549	3.106472673
RP11-649E7.5	1.635164194	-1.692218439	5.994480286	2.86E-09	1.85E-07	10.71103803	3.106229001
RP11-747H7.3	1.633192487	-0.62640599	3.314653002	0.000951125	0.008122535	-1.287120688	3.10198667
PPP2R3A	1.631092211	-1.745448066	2.735421383	0.006342304	0.033844661	-2.997042004	3.097474082
RP11-476E15.3	1.630908677	-2.067206243	3.76666478	0.00017528	0.002139585	0.269336978	3.097080058
RP11-307E17.8	1.630089321	-2.129063881	2.690799054	0.007249149	0.037256861	-3.115413416	3.09532162
PCDHB14	1.628050752	-2.558934922	2.757461981	0.005933254	0.032350865	-2.937866773	3.090950931
AKR1E2	1.628037542	2.004638188	3.913565317	9.72E-05	0.001350809	0.816745638	3.09092263
BAG2	1.625997936	1.241097033	4.974724594	7.71E-07	2.32E-05	5.368565257	3.086555933
GSTO2	1.623511738	0.162879409	5.876861068	5.72E-09	3.39E-07	10.04742326	3.081241449
XXbac-BPG32J3.19	1.621797754	-1.643732877	2.793144572	0.005321282	0.029917688	-2.841074232	3.077582976

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
RP3-523C21.1	1.62145754	-3.286339207	3.401759131	0.000696533	0.006389565	-1.002255303	3.076857309
LINC00669	1.617249404	-2.359939418	2.905109832	0.003753582	0.023166605	-2.529412184	3.067895632
ZDBF2	1.615454253	1.808966886	3.220966683	0.001319556	0.010481754	-1.585440814	3.064080611
RAG2	1.614585483	-3.494639576	2.59001034	0.009739409	0.046050326	-3.375718252	3.062236022
RMND5A	1.61392029	7.197973731	10.7004056	2.37E-25	2.61E-22	46.63225755	3.060824422
LRP2	1.613901503	-2.268745081	3.083771847	0.002101049	0.014832608	-2.007188632	3.060784564
ITGB3	1.612229716	3.986277151	2.947420152	0.003280155	0.020936911	-2.408505171	3.057239798
WNK3	1.61162086	-4.020766701	3.199907232	0.001418782	0.011064194	-1.651347112	3.055949833
CTB-58E17.1	1.610382688	1.884686551	6.119343937	1.36E-09	9.79E-08	11.42887315	3.053328233
C16orf95	1.609386103	0.592994312	5.235739795	2.01E-07	7.41E-06	6.646883894	3.051219783
TEAD1	1.606716409	-2.857599063	2.943577067	0.003320791	0.02114094	-2.419558174	3.045578751
NBEA	1.60512276	1.983037167	3.552532871	0.000399674	0.004110365	-0.492138457	3.042216359
NIPA1	1.602766191	3.901188578	3.377580261	0.000759969	0.006847681	-1.082051735	3.037251111
FAM157A	1.600270379	-2.116563516	2.753125027	0.006011809	0.032608463	-2.949547697	3.032001314
GPR156	1.599446217	-2.221152611	4.136644362	3.83E-05	0.000628767	1.686774033	3.030269732
ZNF354C	1.597920966	0.554499437	3.409425892	0.000677471	0.006251316	-0.976836987	3.027067753
TMEM132A	1.597818842	-3.254916965	3.33578118	0.000882459	0.007671888	-1.218687874	3.026853483
DDHD2	1.59648168	5.887604897	11.73633541	7.37E-30	1.33E-26	56.75855165	3.024049343
C5orf4	1.594383933	3.056347307	3.152841828	0.001665938	0.012426576	-1.797109593	3.019655427
EPB49	1.592445572	4.562987578	2.744858918	0.006164138	0.033207135	-2.971761076	3.015601035
ZC2HC1C	1.588894367	-2.19645392	4.138511241	3.80E-05	0.000625319	1.694251584	3.008187238
MYL9	1.587432373	0.096088481	3.114721153	0.001894569	0.013696691	-1.913619046	3.005140353
PTPRU	1.586504475	-0.452063652	3.342132196	0.000862736	0.007553522	-1.198034279	3.003208161
MBOAT2	1.583595049	4.971190342	3.307528871	0.000975374	0.008300959	-1.310099473	2.99715781
RP11-1H8.2	1.582653672	3.040423422	8.364950798	2.05E-16	6.98E-14	26.60850353	2.995202765
ARHGEF12	1.581961562	6.036998425	3.387549704	0.000733188	0.006645717	-1.049217376	2.993766209
ZNF311	1.581262604	-2.107306631	2.993696738	0.00282522	0.018578472	-2.274298348	2.992316138
ITGB5	1.578531069	1.671958473	2.836375113	0.004656654	0.027172566	-2.722166878	2.986655979
PHLDB2	1.577968314	0.879583063	4.06997626	5.08E-05	0.000800853	1.42187893	2.985491195
TMPRSS4	1.577334297	-2.774785828	3.11331764	0.001903514	0.013751304	-1.917882136	2.984179459
RP11-87G24.6	1.576132328	-3.201434094	2.719594733	0.006651527	0.035040941	-3.039245404	2.98169425
FAM127B	1.574432897	0.223586423	3.064628858	0.002238906	0.01557936	-2.064605362	2.978184015
LGR6	1.573429837	-0.753135076	3.529754943	0.000435234	0.00439611	-0.570586471	2.976114097
NEIL1	1.572218126	2.15262643	3.528244903	0.000437693	0.004409693	-0.575769726	2.973615527
RP1-34B20.4	1.572139074	-0.285617844	3.386243489	0.000736647	0.006674005	-1.053524773	2.973452592
CNN3	1.570493376	-0.497713097	3.10224265	0.001975465	0.014135255	-1.95145573	2.970062676
CHIC1	1.568971278	0.904857113	3.607126001	0.000325202	0.003499057	-0.302117259	2.966930799
PRKG2	1.568717681	-1.597684852	3.050953101	0.002342422	0.016062975	-2.105409153	2.966409319
ACSBG1	1.567412693	-0.407455983	3.604209291	0.000328827	0.003526554	-0.312340737	2.963727269
WWC1	1.566911301	-2.124131965	2.593823269	0.009632805	0.045708468	-3.366048975	2.962697439
CAPS2	1.566788824	0.5820366	4.450540135	9.55E-06	0.000198611	2.989678039	2.962445933
KRT8P34	1.565920864	-1.775968345	3.490065943	0.000504355	0.0049258	-0.706101654	2.960664191
AC084219.4	1.564747423	-2.56854185	3.813534228	0.000145537	0.001845987	0.44178394	2.958257061
F2R	1.563880488	3.480075491	3.862874964	0.000119405	0.00158668	0.625558908	2.956479939
LY6G6F	1.563390553	-1.540981002	2.690323688	0.007259407	0.037290722	-3.116664113	2.955476099
HIST1H2AJ	1.561484167	5.021598506	4.465308707	8.92E-06	0.000187419	3.053233684	2.951573292
ANKRD16	1.560233911	2.30234685	7.706333186	3.16E-14	7.19E-12	21.72164634	2.949016534
COL18A1	1.560202603	3.688104978	4.152015068	3.58E-05	0.000597513	1.748436463	2.948952537
PSD3	1.559932218	3.318375129	2.860189319	0.004323585	0.025821295	-2.655897732	2.948399907
GBP7	1.55981649	-2.571140122	2.989105025	0.002867633	0.018770046	-2.287706515	2.948163406
BNIPL	1.555367993	-1.079059111	5.027239466	5.91E-07	1.83E-05	5.620776101	2.939086853
TRBV26OR9-2	1.55427133	-4.336669009	2.849632045	0.004468476	0.026464454	-2.685343289	2.936853559
ZNF483	1.554124094	0.285862304	3.522846178	0.000446592	0.004472018	-0.594283316	2.93655385
CAMK4	1.549796113	3.395439246	3.218193244	0.001332246	0.010557132	-1.594144586	2.927757601
RP3-43ON8.8	1.549777595	-2.313673795	3.024786773	0.002552811	0.017151232	-2.182981559	2.927720022
ACSM1	1.547721296	-1.167848064	4.316591499	1.75E-05	0.00032792	2.422477711	2.923550062
CEL	1.546985578	0.113826103	4.043614584	5.68E-05	0.000875299	1.318282285	2.922059547
PCDHB9	1.545015313	-3.625800074	2.684594995	0.007384061	0.037715129	-3.131719316	2.918071662
GIT1	1.544653664	5.464409111	9.355787599	5.46E-20	3.27E-17	34.60572154	2.917340262
ZNF286B	1.544569831	0.533419149	4.580859545	5.23E-06	0.000119265	3.55746711	2.917170744

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
SLIT2	1.543361048	-2.413717626	2.842231875	0.00457265	0.026899981	-2.705919457	2.914727575
AP000253.1	1.541407048	-0.820869608	5.368584607	9.90E-08	4.01E-06	7.321201532	2.910782511
CRB1	1.539711122	-2.017768809	3.749712489	0.000187383	0.002251211	0.207474269	2.90736282
FHDC1	1.537731871	3.08185286	2.769867376	0.005713642	0.031474341	-2.904354811	2.903376908
KCNJ2-AS1	1.533551913	-3.232493868	2.899029515	0.003826509	0.023492131	-2.546646282	2.894977054
CTD-2335A18.1	1.53351155	-0.418911856	2.76369252	0.00582202	0.031902606	-2.921054089	2.894896061
ADRA2A	1.531166826	-0.936305382	2.63342959	0.008585567	0.042052883	-3.264781131	2.890194984
CMTM8	1.531084479	-1.096637116	3.375218977	0.000766444	0.006896601	-1.08981478	2.89003002
C17orf99	1.530863616	-0.547445514	2.913712254	0.003652566	0.02270604	-2.5049688	2.889587617
GP1BB	1.530424853	3.46097904	3.441356093	0.000603187	0.005686169	-0.870375195	2.888708948
RP11-815I9.4	1.530026533	-0.064887563	4.477780296	8.43E-06	0.000178332	3.107061742	2.887911502
ARHGAP21	1.52875952	4.635236339	3.032222584	0.002491328	0.016824545	-2.16100411	2.885376377
SLFN13	1.521866394	4.507140562	4.651329167	3.75E-06	9.02E-05	3.871031988	2.871623072
SLC2A1-AS1	1.521009396	0.006048467	3.136662931	0.001759676	0.012941762	-1.846727303	2.869917761
DPEP3	1.518555277	-0.44291518	3.236996804	0.001248369	0.010041247	-1.534990365	2.865039992
RP11-1070N10.6	1.517383546	-1.97664182	2.922922978	0.003547156	0.022211261	-2.47871823	2.862714003
B3GNT4	1.517104242	-3.09366997	3.005552545	0.002718349	0.017995306	-2.239585024	2.862159839
KIAA1377	1.516388096	-1.317034138	3.226439954	0.001294838	0.0103144	-1.56824274	2.86073943
ICOS	1.513333718	1.27225838	3.030110144	0.002508656	0.016912698	-2.167253071	2.854689269
ACVR2B	1.512067987	1.052926069	3.590993172	0.000345731	0.003662196	-0.358564194	2.852185842
RP11-509J21.3	1.509687686	-1.241171277	4.65748332	3.64E-06	8.83E-05	3.898633173	2.847483903
ESPNL	1.509628445	-1.687481562	3.132403872	0.001785147	0.013082482	-1.859747468	2.847366979
RP11-925D8.4	1.509247354	-2.814241602	2.670939906	0.007688977	0.038795176	-3.16747785	2.846614941
C15orf48	1.506998231	-0.434731106	2.860162828	0.004323943	0.025821295	-2.655971751	2.842180601
DMRTA2	1.505639048	-2.975350787	2.908219562	0.003716776	0.023018417	-2.520584225	2.839504205
PER3	1.504852189	1.707895829	3.884598214	0.000109365	0.001480165	0.707195795	2.837955935
PLS1	1.504019176	0.412966005	2.956631197	0.003184599	0.020465625	-2.381955857	2.836317772
AP001347.6	1.503901522	-1.066030376	3.504831379	0.000477523	0.004703205	-0.655860653	2.836086474
AMMECR1	1.503626264	3.944011065	5.017370438	6.22E-07	1.90E-05	5.573186697	2.835545416
EIF5AP2	1.502412303	-2.926782838	3.071994611	0.002184908	0.015296847	-2.04255431	2.83316044
SYNGR3	1.501783068	-0.827085359	3.797909244	0.000154879	0.001943303	0.384064864	2.83192502
DNALI1	1.500829327	-2.381512056	3.133202432	0.001780345	0.013056966	-1.857307551	2.830053502
CPNE5	1.500342586	0.213256649	3.907999436	9.94E-05	0.001377138	0.79563499	2.829098851
CFL1P1	1.499902046	-0.650453013	6.244799803	6.31E-10	4.99E-08	12.16389332	2.828235091
HIST1H2BM	1.499067694	2.681120458	3.766328268	0.000175513	0.002141107	0.268106335	2.826599915
ARMCX1	1.498975303	1.820741967	4.110235004	4.28E-05	0.00069401	1.581343542	2.826418902
KLF8	1.496350248	1.122156277	3.682835386	0.000243233	0.002783599	-0.03393029	2.821280769
ATP13A4	1.495022093	-0.147954505	3.785393449	0.000162767	0.00202303	0.337997118	2.818684675
LTA	1.493227903	-0.36760783	3.504243552	0.000478565	0.004711215	-0.657864748	2.815181431
GTF3C5	1.49263934	5.931689283	8.17988597	8.73E-16	2.62E-13	25.20004291	2.814033182
TRIM32	1.49188453	1.392411306	3.117584285	0.001876443	0.013595454	-1.904916603	2.81256128
GRIK4	1.491576688	-3.510502242	3.063373055	0.002248234	0.0156255	-2.068359713	2.8119612
KCNK5	1.490260941	3.714583046	3.242712308	0.001223858	0.009868165	-1.516943098	2.809397842
BHLHB9	1.488323779	0.201797605	4.900066125	1.12E-06	3.21E-05	5.014339749	2.805628088
RP11-68I3.4	1.487930369	-0.601756445	5.592996568	2.89E-08	1.37E-06	8.496402225	2.804863122
LEPREL1	1.485935213	-2.611681085	2.695824162	0.007141503	0.036866404	-3.102178927	2.800986856
SLC2A1	1.485792168	6.357252539	4.085609354	4.75E-05	0.00075687	1.483621434	2.800709147
ARL5B	1.481569381	6.323351445	5.811128753	8.38E-09	4.70E-07	9.681890374	2.792523421
MB21D2	1.480906378	-1.642409625	2.833421874	0.004699541	0.027341904	-2.730347049	2.791240388
PHTF1	1.478554781	5.926858687	6.664706394	4.41E-11	4.83E-09	14.72366956	2.786694364
CDHR3	1.477245683	-1.588475164	3.46354652	0.000556113	0.005323569	-0.795817475	2.784166872
ALDH1L2	1.476689452	-0.832101595	2.872049077	0.004165916	0.025116081	-2.622691702	2.783093642
TDH	1.475606885	-2.441324104	3.56856732	0.000376292	0.003920845	-0.436620404	2.781006054
LINC00656	1.474877768	-2.365840209	2.991699524	0.002843597	0.018662106	-2.280132855	2.77960093
FASLG	1.47335233	-2.22487926	3.390227455	0.000726146	0.006606095	-1.040382101	2.776663462
RP11-136K14.2	1.472391922	-2.726164496	3.183567553	0.001500469	0.011521062	-1.702191104	2.774815642
YPEL4	1.472123791	2.503316544	2.813074154	0.005004896	0.028645154	-2.786480315	2.774299979
TNIK	1.471265576	4.009433659	3.728351091	0.000203755	0.00240986	0.129907733	2.772650122
RBM11	1.469750043	-2.144612915	3.348036803	0.000844768	0.007421732	-1.178797976	2.769739017
LMCD1	1.465807804	-2.112667441	2.776554757	0.005598326	0.031022338	-2.886228086	2.762180894

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
ABCC4	1.465745472	5.43383606	4.634506352	4.06E-06	9.64E-05	3.795760286	2.762061555
C12orf55	1.465667188	-1.90970267	4.148468401	3.64E-05	0.000603711	1.734188765	2.761911683
GRHL1	1.464857289	0.616825168	3.337703946	0.000876444	0.007637409	-1.212439064	2.760361638
LA16c-349E10.1	1.463651074	-0.8879041	2.604071134	0.009351434	0.044781419	-3.339991719	2.758054708
KHDRBS2	1.460252772	-1.233478646	2.970436818	0.00304613	0.019690878	-2.342011095	2.751565691
FAM22D	1.460140287	0.739639707	5.530255207	4.10E-08	1.86E-06	8.163287104	2.751351163
NPL	1.459921373	2.714679534	3.399049686	0.000703388	0.006437528	-1.01122481	2.750933706
SH2D1B	1.458438706	-1.412901522	2.830959126	0.004735578	0.027470797	-2.737162199	2.748108006
LA16c-329F2.1	1.457115619	-4.178896335	2.88862201	0.003954334	0.024090027	-2.576063042	2.745588888
SFRP1	1.456941313	-3.50978288	2.554319492	0.010789485	0.049765506	-3.465546965	2.745257187
RP11-214C8.2	1.455548699	-0.515786963	3.962578558	7.95E-05	0.00115004	1.003902633	2.742608505
ZCCHC2	1.453237072	6.342862458	6.129029644	1.28E-09	9.31E-08	11.4851285	2.738217549
CLCN3	1.452399335	5.105302424	5.565443472	3.37E-08	1.57E-06	8.349679469	2.736627995
ZFP37	1.450989394	-3.314031224	3.036772387	0.002454381	0.016688948	-2.147530504	2.733954806
MT1F	1.450717929	-0.29626081	2.791211697	0.00535291	0.03003712	-2.846348718	2.733440418
PON2	1.449772904	2.358169675	2.601222505	0.009428901	0.045025903	-3.347245097	2.731650489
RP11-382A20.4	1.449556533	-2.978104052	2.936218807	0.00339988	0.021506849	-2.440681556	2.731240835
DUSP4	1.449532985	1.81005045	2.664419695	0.00783852	0.039405692	-3.184488924	2.731196254
RP11-147K16.2	1.449115139	-3.394488757	3.083647678	0.002101917	0.014832608	-2.00756219	2.730405336
SNED1	1.448784099	2.552850895	3.163676318	0.001605761	0.01208566	-1.763742396	2.72977889
RPS6KL1	1.447108447	2.549661561	2.732036865	0.006407321	0.034090253	-3.006087442	2.726610165
MIR4732	1.446640736	-2.784702834	2.604577719	0.009337717	0.044748223	-3.338700996	2.725726361
NUDT10	1.445828953	-3.852007584	2.691435476	0.007235436	0.037215381	-3.113738634	2.724193067
PAIP2B	1.445278172	1.131132548	3.442245461	0.000601231	0.005673136	-0.867395998	2.723153245
FAM211A	1.443892524	1.307372152	3.286122294	0.00105173	0.008791969	-1.378855228	2.720539026
NBPF12	1.443786158	3.027916902	10.10438488	6.64E-23	5.98E-20	41.1401594	2.720338455
AC009469.1	1.441599292	3.198672491	3.039354927	0.002433633	0.016574921	-2.139873855	2.716218035
NBPF24	1.441314687	-0.95118127	7.803879974	1.53E-14	3.70E-12	22.42324753	2.715682251
AKR1CL1	1.441222744	-2.530007217	3.219267992	0.001327315	0.010524182	-1.590772619	2.715509186
CCDC132	1.440562138	4.023748498	6.679208803	4.02E-11	4.44E-09	14.81479789	2.714266048
PIM1	1.43976761	6.916092889	4.255336026	2.29E-05	0.00041067	2.16865025	2.712771644
ZNRF2P2	1.439705186	0.280517309	4.94622925	8.90E-07	2.62E-05	5.232765019	2.712654268
VASH2	1.439355734	-1.123711358	2.652435538	0.008120203	0.040451775	-3.215648438	2.711997284
C1orf116	1.438365317	1.512818894	2.831109683	0.004733368	0.027466028	-2.736745729	2.710136124
RP3-508I15.14	1.436769974	1.104994818	4.446962325	9.70E-06	0.000201034	2.974311562	2.707140893
CRABP2	1.433419424	-0.062744168	3.801301439	0.000152804	0.001923366	0.396576169	2.700861057
CECR7	1.432580077	-2.362056788	2.688866303	0.007290939	0.037403631	-3.120497169	2.699290177
PLD6	1.431625682	1.797400586	4.896536879	1.14E-06	3.26E-05	4.997720957	2.697505089
AKAP5	1.4316198	-1.404108164	3.965839799	7.84E-05	0.001136334	1.0164357	2.697494093
RP13-228J13.6	1.429913533	-1.733953739	3.011311724	0.002667781	0.017743657	-2.222673785	2.694305668
MUC1	1.425546091	2.253007419	5.192847426	2.52E-07	8.97E-06	6.43257117	2.686161584
RP11-548K23.11	1.424850381	3.293608756	3.551804417	0.000400767	0.004119473	-0.494654887	2.68486655
RASSF6	1.423697222	-3.021199423	2.910671375	0.003687988	0.022890282	-2.513617431	2.682721368
C3	1.421612457	0.865522857	2.88436054	0.004007785	0.024370632	-2.588078058	2.678847505
SPATA22	1.418315698	-3.339710817	3.001739583	0.002752309	0.018159368	-2.250763915	2.672732955
GH1	1.417093671	-2.368067905	3.269061932	0.001116511	0.009212843	-1.433338757	2.670469988
KLRC1	1.416053332	-2.162052849	3.262302015	0.001143186	0.009370432	-1.454850321	2.668544985
AC007255.7	1.415938983	1.335376496	4.6980178	3.00E-06	7.48E-05	4.081300499	2.668333483
TC2N	1.414153527	3.404301415	3.366320069	0.00079131	0.007059352	-1.119023511	2.66503324
CTH	1.412109986	1.246859717	4.013836612	6.43E-05	0.000968771	1.202043073	2.66126096
C14orf45	1.410420298	1.546269411	4.734018875	2.52E-06	6.44E-05	4.244805948	2.658145908
SMIM1	1.409281941	0.106991877	3.399974673	0.00070104	0.006421985	-1.008163463	2.65604933
SQL	1.409030133	4.320247925	6.000813226	2.76E-09	1.80E-07	10.7471154	2.655585783
SLC25A27	1.407146558	-2.646770955	2.842091916	0.004574642	0.026899981	-2.706308104	2.652120926
RP11-634B7.4	1.406308893	-2.75989479	2.646592121	0.008260813	0.040966595	-3.230791458	2.650581484
UBASH3A	1.405629995	1.242659544	3.457767258	0.000568032	0.005421922	-0.815280271	2.649334478
ARHGAP5	1.40515254	4.991016797	2.884013822	0.004012162	0.024389756	-2.589054847	2.648457835
AC004017.1	1.404966238	-0.860726749	2.655141436	0.00805582	0.040212037	-3.208625042	2.648115848
ABCB9	1.403923596	2.638825597	7.092835534	2.51E-12	3.65E-10	17.48948863	2.646202735
RP11-290H9.2	1.403695537	3.406646244	2.864975276	0.004259317	0.025570119	-2.642513831	2.645784461

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
PI4K2A	1.402660878	4.693991514	3.513363003	0.000462633	0.004593131	-0.626736616	2.64388766
GLYCTK-AS1	1.402637832	-3.559518161	2.633984585	0.008571647	0.042013875	-3.263351339	2.643845428
AC020571.3	1.402264829	-1.859935973	3.174571748	0.001547272	0.011802088	-1.730074455	2.64316196
AC005484.5	1.401460454	0.404813898	4.490889993	7.93E-06	0.000169906	3.163799171	2.641688676
CSPG4P5	1.399020565	-3.192874602	2.688170649	0.007306033	0.037442236	-3.122326082	2.637224821
FAHD1	1.397792719	2.322556488	6.375743202	2.80E-10	2.43E-08	12.94572536	2.634981292
RP11-196G18.22	1.396625569	4.795104997	5.677233676	1.80E-08	9.14E-07	8.949181162	2.632850437
FECH	1.396183903	5.823139942	3.858047794	0.000121751	0.001608207	0.607478476	2.63204454
RP11-56N19.5	1.395353135	-2.863660624	2.930913812	0.003457961	0.021769862	-2.455878404	2.630529328
RTKN2	1.39486338	0.434964644	3.401814154	0.000696394	0.006389565	-1.002073076	2.629636488
OR2W3	1.3944968	3.395575759	2.848013074	0.004491081	0.026558584	-2.689849333	2.628968398
ADTRP	1.393115875	-1.277701857	2.913543753	0.003654521	0.022710076	-2.505448267	2.626453196
TSC22D2	1.387953143	6.862131507	7.491368999	1.52E-13	3.00E-11	20.20313675	2.617071142
BACH2	1.38771559	4.327410379	3.316331584	0.000945494	0.008077929	-1.281699409	2.616640254
C20orf197	1.387401386	1.626816856	3.151064127	0.001676008	0.012486135	-1.802573706	2.616070438
Z83844.1	1.386236986	-2.714991011	2.938056217	0.003379972	0.02142076	-2.435411762	2.613959859
ZFPM1	1.386153911	3.52649271	4.346486488	1.53E-05	0.000293707	2.547622552	2.613809341
RP11-809C9.2	1.385965453	-2.336017464	3.428265874	0.000632672	0.005909231	-0.914137797	2.613467925
ZNF233	1.384684118	-1.181890203	3.696143251	0.000231003	0.00266678	0.01377025	2.611147793
RP13-262C2.2	1.383354592	-3.767443518	2.83183551	0.004722726	0.027412312	-2.734737654	2.60874258
CTSL1	1.38314593	1.902700763	2.601262792	0.009427802	0.045025903	-3.347142572	2.608365295
ANKRD18CP	1.382861512	-2.292836843	3.316471899	0.000945024	0.008077407	-1.281246117	2.607851124
RP11-317J10.2	1.381550574	-2.182492606	3.15454565	0.001656339	0.012378966	-1.791869729	2.605482517
C3orf58	1.381531106	5.492502565	5.479214072	5.43E-08	2.36E-06	7.894894919	2.605447358
BBX	1.381044799	6.50085954	7.459770806	1.90E-13	3.62E-11	19.98314607	2.604569255
APBB1	1.380874344	2.793262395	3.183720318	0.001499685	0.011519799	-1.701716926	2.604261543
RIMS3	1.378592961	2.224892603	3.828058592	0.000137332	0.001763392	0.495643512	2.600146589
RP11-202P11.1	1.378345807	-0.071127693	5.096895019	4.14E-07	1.35E-05	5.959183856	2.599701186
C21orf59	1.376146613	2.780898253	6.593816768	6.99E-11	7.20E-09	14.28082472	2.595741312
FAM186B	1.375014441	-0.206144559	2.922988504	0.003546417	0.022211261	-2.478531189	2.593705071
MTX3	1.374734923	2.60396258	3.144035532	0.001716374	0.012710287	-1.824147905	2.593202597
IRF4	1.374266012	3.241355314	2.940196731	0.003356913	0.021309991	-2.429268564	2.59235988
OPTN	1.373371922	3.745563868	3.397355957	0.000707705	0.006474044	-1.016828288	2.590753799
RP11-670E13.3	1.37154703	-1.540527228	4.238670553	2.46E-05	0.000435451	2.10019725	2.587478778
FAM91A2	1.371127279	-0.103013516	3.065067376	0.002235657	0.01556543	-2.063294013	2.586726064
EFHC2	1.370502298	1.414765561	2.656938182	0.008013323	0.040060541	-3.203957534	2.585605725
IGF1R	1.367743835	5.868278874	3.429886833	0.000628949	0.00588139	-0.908727513	2.580666717
RP4-81H24.9	1.365062665	-1.814022502	2.598004814	0.009517094	0.045311534	-3.355428792	2.575875143
NEURL	1.360508164	0.638394991	2.698230181	0.007090473	0.036660752	-3.095833652	2.567756084
EDAR	1.360090196	-1.43527415	2.717000021	0.006703499	0.03521161	-3.046141463	2.567012278
RP11-296E7.1	1.358735032	-1.829531275	2.884812673	0.004002083	0.02434344	-2.586804116	2.564602143
CD59	1.356717874	4.593557288	3.046808721	0.002374649	0.016264165	-2.117739222	2.561018854
ZNF474	1.354667317	-2.291383498	3.513595549	0.000462233	0.004591467	-0.625941818	2.557381366
TUBB2A	1.35464965	2.097783234	3.052621434	0.002329563	0.016027493	-2.100441003	2.557350049
GNAO1	1.354182289	-2.631356503	3.311704865	0.000961091	0.008195984	-1.296635726	2.55652173
SLC25A39	1.3538722	6.488327261	4.340957835	1.57E-05	0.000300177	2.524416181	2.555972297
TRIM58	1.353171451	5.266279837	2.700912094	0.007033978	0.036463537	-3.0887542	2.554731106
DAB2IP	1.351967482	-0.498133735	2.645444031	0.008288695	0.041082413	-3.233762826	2.552600002
SSTR3	1.349766702	-0.302947666	3.081812938	0.002114789	0.014902181	-2.013080209	2.54870907
GPLD1	1.348435342	1.000735845	3.860963409	0.000120329	0.001594742	0.618396452	2.546358134
RNF103-CHMP3	1.346472672	4.468559001	7.555064498	9.57E-14	2.01E-11	20.64910697	2.542896375
Ghc-362H12.3	1.346146155	-1.506076594	3.138645838	0.001747932	0.012866935	-1.840659541	2.542320921
AC125232.1	1.341280224	4.319878579	8.418154698	1.34E-16	4.82E-14	27.01846534	2.533760609
SPTBN4	1.34110724	-1.4273765	2.782156776	0.00550335	0.030588423	-2.871010214	2.53345682
EBF1	1.340274289	1.466584474	2.970060406	0.003049831	0.01970193	-2.343102619	2.531994531
SCML1	1.340076552	2.088932524	2.724146706	0.006561228	0.034676021	-3.027131802	2.531647518
GCNT2	1.339749515	2.949063058	3.408948609	0.000678643	0.006257366	-0.978420998	2.531073697
GCAT	1.338400946	1.992441985	3.837530615	0.000132218	0.001721187	0.530874882	2.528708865
DLG3	1.335076313	0.534072169	2.92656104	0.003506291	0.022018082	-2.468327326	2.522888265
CDKN2C	1.334012237	4.538202739	3.548212013	0.000406203	0.004160753	-0.507057436	2.521028167

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
RAB36	1.333950013	-1.452895627	2.86181945	0.004301597	0.025745403	-2.651341551	2.520919435
AC005532.5	1.333763733	-2.451243058	3.510825099	0.000467016	0.004625856	-0.635407362	2.520593957
RP5-1071N3.1	1.328052912	-0.773120678	3.003809455	0.002733826	0.01806754	-2.244697165	2.51063606
KLRC4	1.32298722	-0.039837427	3.034937649	0.00246922	0.016726882	-2.15296621	2.501835997
SLC22A1	1.322878389	-1.330444602	2.600679524	0.009443732	0.045070701	-3.348626786	2.501647276
ZNF829	1.320590238	1.205692274	4.497719059	7.69E-06	0.000165183	3.193417688	2.497682746
GP6	1.319149534	-0.149553261	2.739640814	0.006262082	0.033570256	-2.985749741	2.495189754
POU2AF1	1.318482443	2.107671799	3.173132183	0.001554886	0.011828731	-1.734529351	2.494036265
RP3-508I15.19	1.317137304	1.781815237	4.676300324	3.33E-06	8.20E-05	3.983243262	2.49171196
RP11-68L18.1	1.31675407	-0.932822921	3.181354048	0.001511863	0.011595049	-1.709059238	2.491050156
RP11-284N8.3	1.31560053	1.992533255	3.056475919	0.002300101	0.015874468	-2.088952497	2.489059176
TREML2	1.312270748	3.506600991	3.971895182	7.65E-05	0.001109897	1.039733225	2.483320979
SLC16A10	1.311521112	0.209865643	3.084919626	0.002093036	0.014796321	-2.003734889	2.482030962
VPREB3	1.310811845	-1.186921822	2.972384982	0.003027039	0.019593074	-2.336359625	2.480811029
ATP7B	1.310805819	2.489244324	2.751339618	0.006044421	0.032740474	-2.954351167	2.480800668
CR2	1.308765195	-0.102119008	3.088411902	0.002068829	0.014661862	-1.993218645	2.477294171
CCDC114	1.308022202	0.276161731	4.962972412	8.18E-07	2.44E-05	5.31246807	2.476018685
GIPC2	1.307345095	-0.905747776	5.931703289	4.15E-09	2.56E-07	10.35532524	2.474856877
FAM46C	1.30390441	7.347266963	2.672372682	0.007656461	0.038677822	-3.16373428	2.46896162
MGAT2	1.302133984	4.837283186	7.458603523	1.92E-13	3.62E-11	19.97503516	2.465933653
ACSM3	1.301267655	4.620614197	3.163738724	0.001605421	0.01208566	-1.763549877	2.46445332
RP11-230B22.1	1.301227711	-1.292115955	3.142989954	0.001722455	0.012736251	-1.827353262	2.464385087
MPC2	1.30086541	5.010478903	8.365120466	2.04E-16	6.98E-14	26.60980734	2.46376629
REXO2	1.299460333	3.429613623	5.205313669	2.36E-07	8.48E-06	6.494687247	2.461367934
WDR66	1.299358116	1.100659638	4.641992707	3.92E-06	9.38E-05	3.829224886	2.461193548
RAPGEF2	1.299287594	6.931463907	5.34910235	1.10E-07	4.39E-06	7.221313108	2.461073243
LHFPL2	1.298708941	4.13179033	3.241563877	0.001228747	0.009899517	-1.520571882	2.460086324
IL2RB	1.298161411	2.21077326	3.223334062	0.001308812	0.010400585	-1.578005559	2.459152853
MYOM1	1.297583482	1.949067364	4.12384081	4.04E-05	0.000658132	1.63557874	2.458167939
SNX22	1.294822266	1.834390129	3.13218761	0.001786449	0.01308518	-1.86040813	2.45346768
H1FX-AS1	1.29279068	1.270225841	6.429313701	2.00E-10	1.79E-08	13.26988144	2.450015166
NELL2	1.292444045	2.587244834	2.771712544	0.005681612	0.031332791	-2.89935762	2.449426573
TXNDC16	1.291253398	3.730141579	6.8254454	1.53E-11	1.88E-09	15.74377219	2.447405913
CTTN	1.290461215	1.377028826	2.64079745	0.008402402	0.041501567	-3.24577565	2.446062411
XKR6	1.290459309	-0.307851524	2.976124461	0.002990701	0.019427772	-2.325501501	2.446059181
FRRS1	1.284228532	3.868465378	4.742266844	2.43E-06	6.22E-05	4.282433389	2.435517807
GPR15	1.281697753	-2.338530322	2.772618949	0.005665937	0.031281222	-2.896901643	2.431249162
RP1-34L19.1	1.280444346	-0.502165788	2.753762929	0.006000196	0.0326004	-2.947830743	2.429137821
RAB30	1.280283314	3.394497069	3.323964314	0.000920274	0.007910283	-1.257014322	2.428866699
UBA52P6	1.279674363	-0.883957712	3.02904728	0.002517415	0.01694289	-2.170395588	2.427841709
CTD-2666L21.1	1.278889733	-0.49770228	4.281274673	2.04E-05	0.000375577	2.275707226	2.426521652
RP11-66D17.5	1.27887574	-0.547290435	4.04705113	5.59E-05	0.000864108	1.331750408	2.426498116
DNAH11	1.278481375	-2.399248123	3.425159811	0.000639862	0.005955296	-0.924497946	2.425834916
GLB1L3	1.276769122	-2.484557967	2.937801086	0.00338273	0.021425758	-2.436143687	2.422957538
RP11-147L13.8	1.276725039	-0.912835936	3.167968037	0.001582483	0.011979057	-1.750494097	2.422883503
SGMS1	1.275832814	4.094759633	5.250028464	1.86E-07	6.92E-06	6.718647447	2.42138555
EPHA4	1.275597752	1.328837541	2.919210995	0.003589299	0.022432553	-2.489307176	2.42099106
SLC16A14	1.275476819	-0.528616693	2.5562652	0.010729741	0.049628186	-3.460681588	2.420788131
DCST1	1.275416316	-0.944261719	2.846232835	0.004516057	0.026650531	-2.694801323	2.420686611
DNAAF2	1.273789938	3.242236546	6.577119254	7.78E-11	7.86E-09	14.1771455	2.417959262
RP5-882C2.2	1.273301163	2.287158348	5.887183335	5.39E-09	3.20E-07	10.10517251	2.417140213
TIAM1	1.273259113	2.505769084	2.79398389	0.005307601	0.029852616	-2.838782758	2.417069761
NUDT12	1.273157539	0.132143357	2.763336819	0.005828319	0.031919445	-2.92201493	2.416899592
GPR146	1.272206842	1.894069987	2.988776297	0.002870691	0.018777765	-2.288665651	2.415307445
RP1-80N2.3	1.271748842	-1.567215748	2.718427604	0.00667486	0.03511711	-3.042348129	2.4145408
CTC-471J1.2	1.271690158	-1.289065498	3.211932763	0.001361309	0.01075397	-1.613764618	2.414442587
SLC26A1	1.270141131	-1.882309201	3.54817769	0.000406255	0.004160753	-0.507175872	2.411851582
HIST1H3F	1.267802099	5.153024081	3.156741052	0.001644046	0.012317583	-1.785113991	2.407944432
CATSPERB	1.267665379	-1.258148104	2.805946508	0.005116037	0.029114476	-2.806049233	2.407716248
RP11-420G6.3	1.267074947	-1.170215413	3.83163717	0.000135378	0.001750045	0.508944175	2.406731076

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
PTPLA	1.267045149	2.373996936	3.636873029	0.000290311	0.003186009	-0.197390117	2.406681368
CDC14B	1.266031866	0.131296154	2.612793529	0.009117757	0.043917493	-3.317733464	2.404991619
RP3-453I5.2	1.265856538	-1.231915716	2.795247591	0.005287063	0.029779422	-2.835331371	2.404699362
RP11-659G9.3	1.265274362	-2.306409482	3.14274649	0.001723873	0.01274198	-1.828099486	2.403729181
IZUMO1	1.264712212	-3.325572553	2.69532285	0.007152177	0.036902251	-3.103500312	2.402792744
RP11-104L21.2	1.264006974	-1.032212119	2.684017705	0.007396728	0.037728464	-3.133234701	2.401618464
MICAL2	1.262158859	5.876295372	3.672688681	0.000252963	0.002861773	-0.070187602	2.398543923
APOLD1	1.261754828	1.889502838	4.76093675	2.22E-06	5.77E-05	4.367836866	2.397872297
RP11-671M22.5	1.261178416	0.398926686	3.27837383	0.001080708	0.008976675	-1.403634902	2.396914447
HOMER1	1.2609276	1.406041583	3.039335116	0.002433792	0.016574921	-2.139932615	2.396497774
GCLM	1.260218892	3.618108232	4.073867487	5.00E-05	0.000790321	1.437225853	2.395320809
AC012309.5	1.256863259	-1.782541298	2.742482968	0.006208562	0.03335564	-2.978133758	2.389755894
RP11-353N4.4	1.255030342	-1.324988829	3.058424588	0.002285337	0.015806323	-2.083138968	2.386721682
MEX3B	1.253607425	3.590980307	2.847259411	0.00450164	0.026597176	-2.691946128	2.38436884
RP11-511B23.2	1.253590275	-3.091218367	2.704532246	0.006958361	0.036199066	-3.079187092	2.384340496
RP3-508I15.18	1.251307447	1.055363661	4.245107302	2.39E-05	0.000426792	2.126605357	2.380570653
TSTD3	1.250849128	-1.492082898	3.605211988	0.000327576	0.003518534	-0.308827053	2.379814507
MAPK10	1.247634597	-2.389105773	2.592452653	0.009671005	0.045812825	-3.369526359	2.374517842
AC007036.4	1.245103493	1.02225964	3.829276329	0.000136664	0.001759385	0.500168177	2.370355575
UROD	1.243576808	5.209923063	5.077509781	4.57E-07	1.48E-05	5.864561106	2.367848551
RP11-571M6.6	1.242651952	-1.620038878	3.059394178	0.002278023	0.015777122	-2.080245004	2.3663311
TDRKH	1.241041687	0.81052137	3.151298347	0.001674678	0.012480926	-1.801853958	2.363691393
RP11-820K3.2	1.240074238	-1.781783184	3.202549008	0.001405968	0.010982979	-1.643102796	2.362106868
SLC16A1	1.239821424	3.745469492	3.033304278	0.002482499	0.016787833	-2.157802622	2.361692975
HCN2	1.239129398	-0.040521699	3.485274923	0.00051336	0.004994024	-0.722359178	2.3605604
SKA2	1.238795689	3.183482718	4.882756676	1.22E-06	3.47E-05	4.932940756	2.360014443
ZNF252P-AS1	1.237756227	-1.141908306	3.548840534	0.000405247	0.00415892	-0.504888389	2.358314665
HMGN5	1.23722408	-0.869653584	3.632764305	0.000294912	0.003229341	-0.211905077	2.357444947
C19orf57	1.237039407	0.463785606	3.369114177	0.000783423	0.007002468	-1.109860572	2.357143199
EXOC8	1.235620699	5.635694131	10.57237111	8.13E-25	7.66E-22	45.4313659	2.354826387
RP11-80H8.4	1.235396896	-1.454088562	3.126771737	0.001819351	0.013269258	-1.876938579	2.354461114
AP000275.65	1.235183415	2.454704706	5.514724036	4.47E-08	2.01E-06	8.0813714	2.354112741
ADPRHL1	1.234956407	-0.531533201	3.756908866	0.000182152	0.00220443	0.233702355	2.353742351
MIER3	1.233059137	5.184968649	5.85134961	6.64E-09	3.85E-07	9.905100986	2.350649009
DBN1	1.233013585	4.108855128	2.976868908	0.002983514	0.019387453	-2.323338288	2.35057479
C17orf110	1.231605254	-1.226186045	3.904260295	0.00010097	0.001390716	0.781469271	2.348281325
AC009542.2	1.230846203	-3.023824518	2.601189777	0.009429794	0.045025903	-3.347328386	2.347046139
RP11-690G19.3	1.22954936	3.949119665	7.636103186	5.30E-14	1.15E-11	21.22135201	2.34493732
CD6	1.225675427	4.408754676	2.708333641	0.006879745	0.035848308	-3.069127422	2.338649127
DMPK	1.22484095	2.087905421	3.581234727	0.000358732	0.003769639	-0.392588304	2.337296808
OPLAH	1.224522782	2.12816453	2.879473179	0.004069894	0.024634748	-2.601836278	2.336781404
CXCR3	1.223801237	-0.141224222	2.866991432	0.004232504	0.02546323	-2.636869077	2.335612984
ZNF507	1.222676162	4.815291025	5.215172547	2.24E-07	8.13E-06	6.543911209	2.333792284
sep-05	1.221187273	4.616013749	3.02381944	0.00256091	0.017183022	-2.185836738	2.331385008
DNAJA4	1.220327895	5.168326257	3.199194281	0.001422259	0.011083988	-1.653570912	2.329996673
TESPA1	1.219466169	4.668864112	3.635613762	0.000291714	0.003197862	-0.201840447	2.328605375
AL358813.2	1.219463366	-0.904594806	2.795106443	0.005289353	0.029783844	-2.835716945	2.328600851
TMEM8B	1.2187382	1.793456608	3.259645905	0.001153828	0.009438112	-1.463290737	2.327430681
PANX1	1.218716999	3.51735132	5.343227702	1.14E-07	4.50E-06	7.191260074	2.327396478
FBLN7	1.217266611	-0.813885917	2.665089988	0.007823028	0.039337801	-3.182742035	2.325057847
USP1	1.217012077	5.559788626	7.911427315	6.83E-15	1.71E-12	23.20578324	2.324647675
LINC00173	1.216845355	1.230458153	3.319768261	0.00093406	0.008007908	-1.270591684	2.324379047
CRAMP1L	1.214333056	7.036039991	7.533097579	1.12E-13	2.29E-11	20.49492422	2.320334913
WI2-3658N16.1	1.21378561	2.158067659	5.977155072	3.17E-09	2.03E-07	10.6125208	2.319454603
BCL11B	1.211954393	4.104256059	2.762903564	0.005836	0.031952667	-2.9231851	2.316512381
ZNF876P	1.211647796	-0.434249508	3.14138493	0.001731807	0.012779354	-1.832260728	2.316020136
CD28	1.211304815	2.703441585	2.781945247	0.00550691	0.030599613	-2.87158538	2.315469599
ZNF563	1.210316984	0.563834513	3.749542107	0.000187508	0.002251352	0.206853881	2.313884711
YAP1P1	1.209846287	0.144145694	2.698231039	0.007090455	0.036660752	-3.095831387	2.313129901
NLN	1.208598189	3.865622637	4.207099788	2.82E-05	0.000491778	1.971230824	2.311129641

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
CAPN5	1.208585599	1.159852849	3.167959488	0.001582529	0.011979057	-1.750520505	2.311109473
PLEKHB1	1.208147675	-0.663374704	3.167527746	0.001584857	0.011979057	-1.751854061	2.310408052
C1orf198	1.207284189	2.537750997	3.597745576	0.000336995	0.003587622	-0.334968276	2.309025633
TAP1	1.206202944	6.511319909	5.423620152	7.35E-08	3.09E-06	7.605224246	2.307295754
SPDEF	1.205425796	-2.219660275	2.767939805	0.005747276	0.031599701	-2.909571673	2.306053201
SKAP1	1.204913926	1.728300536	3.074121749	0.002169538	0.015218532	-2.03617658	2.305235154
RP11-326C3.2	1.201098434	1.824520342	2.638865236	0.008450095	0.041654717	-3.250764883	2.29914656
FBXL20	1.200954314	5.735497686	9.483524028	1.79E-20	1.18E-17	35.69136687	2.298916895
ESYT3	1.200555539	-2.796849506	2.691213375	0.007240219	0.037220632	-3.11432315	2.29828154
LTBP4	1.199585836	4.281244435	3.463838335	0.000555518	0.005320441	-0.79483389	2.296737275
FOXO3B	1.199167124	1.265081577	4.50475443	7.44E-06	0.000160609	3.223976113	2.296070793
PLXNC1	1.197449062	6.059318239	2.752442884	0.00602425	0.032666988	-2.951383301	2.293338098
PLCL1	1.196502546	1.847899343	2.698138948	0.007092402	0.036660752	-3.096074359	2.291833991
RP11-499P20.2	1.196497294	1.442851975	5.775945729	1.03E-08	5.61E-07	9.487815155	2.291825647
CDC42BPB	1.195893937	4.615990876	3.016779275	0.002620572	0.017488448	-2.206589485	2.290867371
TNS1	1.195638496	6.177147719	2.773160663	0.005656588	0.031247042	-2.895433449	2.29046179
TJP2	1.195410103	4.019908391	4.280106273	2.05E-05	0.000376468	2.270871397	2.290099217
AF131215.4	1.195082693	-1.822831413	2.558577502	0.010659124	0.049359251	-3.454894765	2.289579552
MLXIP	1.194345093	7.945883492	8.907553941	2.48E-18	1.04E-15	30.89391752	2.288409269
RAB39B	1.193746972	1.000325938	3.828361012	0.000137166	0.001763392	0.496767062	2.287460723
CDR2	1.192327888	4.902083845	6.369448433	2.91E-10	2.51E-08	12.90779924	2.285211805
PNMA1	1.192173484	4.26094416	5.421750317	7.43E-08	3.11E-06	7.595529817	2.284967245
GMPR	1.191061176	3.710800867	2.619148541	0.008950806	0.043334864	-3.301470204	2.283206229
HIST1H4F	1.189384233	4.450404603	2.743429961	0.006190822	0.033278399	-2.975594422	2.280553844
LA16c-431H6.6	1.189287504	6.263384796	7.39349338	3.06E-13	5.34E-11	19.52440751	2.280400945
ENPP4	1.189253496	3.810936188	3.040174629	0.002427082	0.01655452	-2.137442287	2.28034719
DMWD	1.187129608	2.617146129	3.698581782	0.000228826	0.002646276	0.022529021	2.276992608
TMEM14A	1.185891682	0.18037052	3.167400532	0.001585544	0.011979057	-1.752246965	2.275039639
GTDC2	1.185222224	2.659004886	4.276378431	2.08E-05	0.00038107	2.255450923	2.27398419
AC067852.1	1.184039922	1.491486228	3.952737871	8.28E-05	0.001185484	0.966145017	2.272121403
SNX25	1.183692532	1.635807924	2.802942199	0.005163549	0.029296635	-2.814282916	2.271574358
FRMPD3	1.183634358	-1.994905507	2.755876945	0.005961855	0.032444234	-2.942137927	2.271482764
RP11-282K24.3	1.182074263	2.392237877	3.006370487	0.002711114	0.017959428	-2.237185157	2.269027766
CCDC64	1.182026088	1.863293744	2.726749843	0.006510087	0.034460964	-3.020195431	2.268951998
CLEC18B	1.181947237	-1.765384665	3.123954623	0.001836685	0.01336612	-1.885525953	2.268827991
RORA	1.179485972	4.020694926	2.777515948	0.005581926	0.030946923	-2.883619157	2.264960628
ZNF717	1.179014897	0.970701148	2.834409361	0.004685161	0.027302637	-2.727612744	2.264221184
NMNAT3	1.177787644	2.735226043	3.198251151	0.001426871	0.011115547	-1.656511926	2.262295904
CCR7	1.177131317	3.661746067	2.65005864	0.008177137	0.04064331	-3.221812061	2.26126695
RP11-94L15.2	1.177107396	3.934527608	3.120838602	0.001856035	0.013477195	-1.895015644	2.261229457
FAM115D	1.175980486	-2.689984296	2.712183196	0.006800949	0.035525445	-3.058926122	2.259463868
KIF19	1.175154887	-2.80728949	2.683734117	0.007402958	0.03773663	-3.133979	2.258171233
TTC26	1.174238064	2.044445137	4.825934941	1.61E-06	4.43E-05	4.66766046	2.256736637
CTXN1	1.173680039	-1.895935337	2.861238305	0.004309424	0.025769287	-2.652966131	2.255863914
GSTA4	1.172965773	-0.776102499	3.047181615	0.002371732	0.016249817	-2.116630488	2.254747331
CHST2	1.172853258	4.251034872	3.03935556	0.002433628	0.016574921	-2.139871977	2.254571491
CD247	1.17284503	3.377147605	2.862089812	0.00429796	0.02573184	-2.650585649	2.254558634
RP11-447D11.2	1.172275574	1.759839978	6.648846955	4.89E-11	5.15E-09	14.62422093	2.253668897
RIC3	1.171984249	0.078065034	3.248527624	0.001199377	0.009710339	-1.49854869	2.253213857
TNK1	1.171801497	-1.393595837	3.147653674	0.001695484	0.012579131	-1.81304795	2.252928452
NAPEPLD	1.170566091	2.838790311	4.296020267	1.91E-05	0.000355192	2.336846186	2.251000054
USP38	1.170328695	6.783493895	7.907805503	7.02E-15	1.74E-12	23.17927703	2.250629681
IL21R	1.169498829	2.929112009	2.934173492	0.003422167	0.021606385	-2.446543825	2.249335448
SPAG16	1.167469995	0.106668045	2.769311549	0.005723322	0.031518256	-2.905859492	2.246174473
GPR19	1.165511706	-1.328898474	4.363989689	1.41E-05	0.000274497	2.621279046	2.243127625
IPP	1.165328536	1.500328259	4.809669183	1.75E-06	4.73E-05	4.592266165	2.242842847
FBXO45	1.164707614	4.207104287	7.205824042	1.15E-12	1.80E-10	18.24532925	2.241877757
STK31	1.164340065	-1.596840344	2.641570172	0.008383396	0.041429136	-3.243779372	2.241306676
RP11-348F1.3	1.163405173	-2.56106208	2.695845325	0.007141053	0.036866404	-3.102123141	2.23985474
MAGEE1	1.162935901	-0.319352289	2.760318848	0.005882014	0.032147487	-2.930162349	2.23912629

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
ASAP3	1.162452814	-1.591265724	2.763855776	0.005819131	0.031895608	-2.920613052	2.238376643
DSCAML1	1.162417287	-2.288633882	2.684726093	0.007381187	0.037710184	-3.131375139	2.238321524
GPR68	1.162195454	-0.003698662	2.606548968	0.009284514	0.044547204	-3.333676116	2.237977379
C1orf109	1.161981495	3.032627396	4.913047464	1.05E-06	3.04E-05	5.075565326	2.237645501
AC016735.2	1.161320221	-2.438943852	2.57950103	0.010038706	0.047193127	-3.402296376	2.236620088
NME3	1.160464611	3.230622249	4.903360772	1.10E-06	3.17E-05	5.029864131	2.235294023
IFIT3	1.160436457	3.87446829	2.61378456	0.00909154	0.043844578	-3.315199855	2.235250402
RSPH1	1.156182875	-1.049579773	2.688493439	0.007299026	0.037425711	-3.121477506	2.228669789
ECE1	1.155220981	5.15806581	2.904844429	0.003756739	0.023178858	-2.530165185	2.227184353
KIAA1009	1.15456714	2.910960536	5.774550768	1.03E-08	5.64E-07	9.480142991	2.226175205
RP11-649A18.5	1.153719121	-0.392752505	5.07990962	4.52E-07	1.46E-05	5.876256603	2.224867038
AC007036.5	1.153440644	3.130000854	3.784160692	0.000163564	0.002029664	0.333467612	2.224437623
TTC8	1.152774691	2.142210264	2.976969008	0.002982549	0.019387453	-2.323047378	2.223411053
BCL2L1	1.152684987	6.062988989	3.346350763	0.000849863	0.007457309	-1.184294217	2.223272809
SPA17	1.152490008	-0.253228839	3.54483173	0.000411381	0.004202369	-0.518716481	2.222972356
TAC3	1.150836884	-2.881648023	2.613319943	0.009103823	0.043871734	-3.316387785	2.220426603
CCR4	1.150617939	0.576450089	2.808085413	0.005082453	0.028965006	-2.800182009	2.220089656
SRPK1	1.150169322	7.012000235	5.982548952	3.07E-09	1.97E-07	10.64316391	2.219399408
sep-12	1.149904273	-2.253925615	2.800230644	0.005206774	0.029444536	-2.821706819	2.218991702
DHDH	1.14858894	-2.099418791	2.855242126	0.004390942	0.026146125	-2.669709403	2.216969527
ITK	1.14836617	4.027799362	2.595892539	0.009575388	0.045494411	-3.360795604	2.216627225
SSX2IP	1.148242761	4.340117567	3.543037073	0.000414155	0.004221986	-0.524902093	2.216437622
KLF12	1.147290088	3.781480971	2.714197409	0.006760045	0.035404207	-3.053582784	2.214974497
FAM19A2	1.147056947	2.536620055	4.274675352	2.10E-05	0.000383102	2.248410326	2.214616583
KLRD1	1.147013962	0.868588245	2.925094061	0.003522717	0.022107201	-2.472518787	2.214550601
CLCN2	1.146882209	1.409684566	4.519071414	6.97E-06	0.00015132	3.286303934	2.214348368
RP11-649A18.4	1.14639688	1.035631375	5.16989305	2.84E-07	9.90E-06	6.318563942	2.213603577
AC090945.1	1.145386933	-1.32576265	2.841640557	0.004581069	0.026903523	-2.707561345	2.212054503
STRCP1	1.145365607	-1.697239723	2.908570206	0.003712646	0.023000041	-2.519588229	2.212021804
RP11-463O12.3	1.143757757	-1.576408272	2.803638115	0.005152508	0.029286403	-2.812376444	2.209557932
SLC41A1	1.143495114	3.400940193	3.07338431	0.002174855	0.015244017	-2.038388112	2.209155718
FGFR1	1.142882233	4.953562035	2.653260646	0.008100522	0.040404595	-3.213507545	2.208217431
B9D1	1.141550773	-0.180858403	3.785835933	0.000162481	0.002020755	0.339623283	2.206180412
P2RY10	1.140275121	2.31701246	3.097658963	0.002005969	0.01429316	-1.965316765	2.204230537
SLC37A3	1.137896202	2.738706317	3.282432597	0.001065438	0.008882355	-1.390662056	2.200598885
RP11-75L1.1	1.137857517	-0.510822878	3.065495036	0.002232493	0.015554346	-2.062014956	2.200539879
IKZF3	1.137672772	3.261892854	3.122283829	0.001847037	0.013436514	-1.890615431	2.200258107
IFI27L1	1.137348811	1.700503987	6.435581487	1.92E-10	1.73E-08	13.30797066	2.199764088
DPCD	1.136952816	0.993820547	4.926031633	9.84E-07	2.88E-05	5.136958374	2.199160373
ARL15	1.136538588	3.13758797	5.001898462	6.72E-07	2.04E-05	5.498758022	2.198529039
SPRTN	1.134784584	4.46757345	7.41686307	2.59E-13	4.62E-11	19.68574378	2.195857728
ANP32E	1.134743636	5.927966958	5.688375242	1.69E-08	8.67E-07	9.009541932	2.195795405
CLEC17A	1.134577687	0.243378296	2.757337903	0.005935488	0.032354133	-2.93820121	2.195542843
RP11-379F4.4	1.133154707	-1.872859659	3.211206786	0.001364716	0.010771297	-1.616037375	2.19337837
RP11-849H4.4	1.132593358	-1.035673568	3.312031812	0.000959981	0.008191096	-1.29558092	2.192525098
RP1-80N2.2	1.131704132	-2.514118772	2.561104556	0.010582421	0.049095985	-3.448564594	2.19117412
AL592494.5	1.130680891	-2.125015682	3.08144223	0.002117398	0.014908453	-2.01419473	2.189620566
PRDX2	1.129903218	4.768890846	2.566472499	0.010421121	0.048575435	-3.435097652	2.188440587
CD5	1.129391594	3.427087164	2.559458446	0.010632329	0.049269763	-3.452688734	2.187664637
ZNF568	1.128664882	1.647163085	4.038277928	5.80E-05	0.000892332	1.29738939	2.186562947
C7orf41	1.124285448	6.328178268	3.923623561	9.33E-05	0.001309319	0.854969045	2.179935499
LLOXNC01-116E7.2	1.122819097	-1.174222464	2.78313342	0.005486942	0.030548711	-2.868354074	2.177720944
RP11-322M19.2	1.121574464	0.98839794	4.831393138	1.57E-06	4.33E-05	4.693014399	2.175843004
PELI1	1.120016785	6.404742242	3.119263407	0.001865887	0.013538803	-1.899809293	2.173495012
VIL1	1.118194304	-0.777868755	2.841199212	0.004587361	0.026903523	-2.708786591	2.170751083
FAM22A	1.117941533	-0.982713911	3.306866242	0.000977659	0.008307217	-1.312234317	2.170370785
FADS2	1.11580715	5.794553227	3.106732289	0.001946001	0.013990559	-1.937859621	2.167162222
RP3-330M21.5	1.114294219	-0.27848303	3.578671814	0.000362222	0.003796228	-0.401509289	2.164890746
AQP3	1.112380394	2.217967367	3.061674121	0.002260909	0.015680551	-2.073436447	2.162020787
CDKL4	1.110025636	-1.732405161	2.593174462	0.009650871	0.045749281	-3.367695287	2.158494828

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
RP11-125K10.4	1.108333946	2.204923493	4.654333402	3.70E-06	8.93E-05	3.884501528	2.155965282
CTD-310H18.4	1.10599187	-0.9389362	3.125288848	0.001828456	0.013320937	-1.881459795	2.15246812
SEMA4F	1.105311068	0.553468654	3.228635158	0.001285046	0.010257039	-1.561336955	2.151452619
TERC	1.102404646	5.793251453	5.341718891	1.14E-07	4.52E-06	7.183546449	2.147122711
HMBS	1.100069115	4.77790533	2.715759665	0.006728472	0.035303406	-3.049435711	2.143649618
PHLPP1	1.099287976	6.55097287	5.861711816	6.25E-09	3.65E-07	9.962839703	2.142489265
TRAV13-1	1.098922499	-2.848783699	2.573720672	0.0102068	0.047801643	-3.416869513	2.141946579
RP5-983L19.1	1.098828653	-2.111339763	2.85733335	0.004362354	0.02599154	-2.663873951	2.141807252
MOB1B	1.09823455	6.803188892	4.657079099	3.65E-06	8.83E-05	3.896819181	2.140925436
TRBV2	1.097671905	-2.926478142	2.584186829	0.009904259	0.046638642	-3.390459122	2.140090646
WRN	1.097508157	5.735548018	6.046998475	2.09E-09	1.43E-07	11.0112912	2.139847757
TMSB15B	1.097429441	1.359317137	2.684046536	0.007396095	0.037728464	-3.133159027	2.139731006
UBXN8	1.097413136	1.649977156	4.426730637	1.06E-05	0.000218144	2.887640923	2.139706823
NRIP1	1.096088131	7.168156111	3.356117418	0.00082074	0.007256471	-1.152418803	2.137742568
DTD1	1.095750351	3.339848508	3.240225164	0.001234469	0.009941568	-1.524800329	2.137242115
RP11-67C2.2	1.093269012	-1.853761178	2.988508249	0.002873188	0.018777765	-2.289447667	2.133569361
GAB1	1.092484704	4.989177374	4.058919034	5.32E-05	0.000831721	1.378346803	2.13240978
EPB41L5	1.091007808	1.766312633	2.647193306	0.008246247	0.040914867	-3.229235026	2.130227935
NUP210L	1.089737594	-0.446002489	3.626708802	0.000301817	0.003292205	-0.233268351	2.128353212
CHAC2	1.088541843	-0.580173405	3.219558996	0.001325983	0.010524182	-1.58985942	2.126589896
C10orf88	1.087885695	1.812220452	5.565830136	3.37E-08	1.57E-06	8.351733787	2.125622928
BCL7A	1.087096405	4.524517739	3.480035343	0.000523379	0.005083995	-0.740113881	2.12446033
ACTN3	1.086875579	-1.74194557	2.674441643	0.007609725	0.038539447	-3.158324992	2.124135175
PRRT2	1.086660195	-2.219119846	2.636748735	0.008502615	0.041788686	-3.256225838	2.123818081
RRAS2	1.086452516	1.980010715	2.591395587	0.009700558	0.045919843	-3.372207	2.123512375
CPOX	1.084717686	5.055278155	5.079080451	4.54E-07	1.47E-05	5.872215098	2.120960402
ALDOC	1.084432577	2.138135766	3.750477139	0.00018682	0.002245817	0.210258812	2.120541293
CDKN2B-AS1	1.084240336	0.196326877	2.637767851	0.00847729	0.041740749	-3.253596871	2.120258748
SEMA4C	1.082351548	3.72879737	3.103413181	0.001967744	0.014096939	-1.947912835	2.117484704
SLAMF7	1.082331933	1.734379254	2.629742044	0.008678576	0.042379808	-3.274273547	2.117455915
CMAS	1.082194002	4.060853644	5.131972974	3.46E-07	1.17E-05	6.131273831	2.117253482
DNAH10	1.079287595	1.565131956	2.975382227	0.002997882	0.019450952	-2.327657751	2.112992425
TRIM25	1.074823374	7.381819731	6.545149376	9.56E-11	9.41E-09	13.97930698	2.106464167
HERC2P2	1.074391175	5.74072721	3.945264048	8.54E-05	0.001214988	0.937529529	2.105833211
HIST1H1T	1.073863589	-1.176050037	2.975349231	0.002998201	0.019450952	-2.327753596	2.10506326
RP11-83J16.3	1.073117989	-1.0348338	2.603312095	0.00937202	0.044836595	-3.341925202	2.103975623
CPEB4	1.07309574	6.88339822	3.749092613	0.00018784	0.002253965	0.205217338	2.103943176
LEMD3	1.07306318	6.491104659	7.932605182	5.82E-15	1.48E-12	23.36098664	2.103895692
AC093616.4	1.072794182	0.499981455	5.630853775	2.34E-08	1.14E-06	8.699102606	2.103503446
FOXD2	1.071626549	-2.156325136	2.783313507	0.005483921	0.030540487	-2.867864199	2.101801682
SIT1	1.070779297	-0.167449776	2.62021716	0.008923002	0.043249569	-3.298731651	2.10056772
HIST1H2BI	1.068994602	4.672700945	2.618011244	0.008980481	0.04345727	-3.304383549	2.097970805
CD79A	1.068941565	3.233409344	2.934699819	0.003416419	0.021579782	-2.445035654	2.09789368
TBX21	1.06749722	0.635404209	2.958978344	0.003160659	0.020351436	-2.375177585	2.095794438
HMGB1P20	1.06648921	-1.421404314	2.565269967	0.010457064	0.048697088	-3.43811695	2.09433062
PARD6B	1.065895559	1.498940852	3.587284442	0.000350619	0.003706038	-0.371505795	2.093469006
WEE2	1.065884642	-2.363695865	2.616651503	0.009016076	0.043574146	-3.307865077	2.093453165
GARS	1.065551526	6.568982971	6.652663576	4.77E-11	5.08E-09	14.64813379	2.092969845
GPR155	1.065098934	1.997745063	3.194839113	0.001443669	0.011215501	-1.667144786	2.092313356
NPAT	1.064526665	5.407474843	5.524893419	4.22E-08	1.91E-06	8.134983103	2.091483571
GABARAPL1	1.064131969	6.091026158	3.538337507	0.000421501	0.004279245	-0.541085536	2.090911456
EOMES	1.064083537	-0.610612231	2.6641945	0.007843732	0.039411864	-3.18507572	2.090841264
LAT	1.060579288	3.191361707	3.219215349	0.001327556	0.010524182	-1.59093781	2.085768856
IGFALS	1.059329257	-0.334583347	3.681137517	0.000244836	0.002796136	-0.040004076	2.083962414
FGFBP3	1.057126354	1.064978965	3.64900835	0.000277112	0.003073413	-0.154426259	2.080782764
HIST2H2BA	1.056171856	-2.243352548	2.744180267	0.006176798	0.033257225	-2.973581883	2.079406557
ZNF19	1.055588536	1.400159256	4.6170747	4.41E-06	0.000102993	3.718039639	2.078565968
FGFR4	1.053414121	0.211735168	3.255996487	0.001168599	0.009526486	-1.474876651	2.075435534
RASGRP1	1.052741399	3.493005231	2.90245708	0.003785242	0.023289363	-2.536935529	2.074467994
MIR5010	1.052641956	-0.816289455	3.48883559	0.000506653	0.004940873	-0.710278726	2.074325009

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
UFSP1	1.05092523	-0.752767098	3.348086913	0.000844617	0.007421732	-1.178634581	2.071858147
LCK	1.050757059	2.841948174	2.641855598	0.008376386	0.041415178	-3.243041847	2.071616651
RP11-930O11.1	1.049691512	-0.692399548	2.81209776	0.005019991	0.028691668	-2.789163887	2.070087159
RP11-400F19.18	1.049218834	2.761482007	3.016192808	0.002625598	0.017516088	-2.208316109	2.069409036
TTC9C	1.048305715	2.945312261	6.719636962	3.08E-11	3.51E-09	15.06978798	2.068099668
SLC12A6	1.047617407	7.258793256	5.750079287	1.19E-08	6.40E-07	9.345833333	2.067113215
RP11-553L6.2	1.047025201	-2.049055305	2.767351093	0.005757585	0.031645924	-2.911164273	2.066264868
IFI27L2	1.046986693	1.340413427	2.956277884	0.003188217	0.020475575	-2.382975723	2.066209717
C3orf20	1.046796728	0.602826297	2.778462242	0.005565822	0.030874942	-2.881049795	2.06593767
LINC00654	1.046346434	2.520193728	2.609203133	0.009213306	0.044286517	-3.326904507	2.06529295
RCL1	1.044463601	4.520850254	5.300374604	1.43E-07	5.50E-06	6.972977882	2.062599334
SGTB	1.044282799	4.760131504	3.733081897	0.000200017	0.002372743	0.147048903	2.062340861
BMP2K	1.043495795	6.378299561	4.00205055	6.75E-05	0.001008295	1.15626536	2.061216141
RPL36AP15	1.042638069	-1.396306523	3.052968847	0.002326894	0.016014694	-2.0994061	2.059991049
MLLT11	1.042060939	3.189008017	3.866021557	0.000117899	0.001572843	0.637356448	2.059167143
CD22	1.039822341	3.253964189	2.805204568	0.005127734	0.029172648	-2.808083419	2.055974457
DQX1	1.038898508	-1.852742468	3.327827556	0.000907749	0.007823592	-1.244499029	2.054658331
LRRC73	1.038236433	-1.388817681	2.688396418	0.007301131	0.037426809	-3.121732575	2.053715633
FLI1-AS1	1.037950192	-0.462563324	3.230990842	0.001274613	0.010194331	-1.553921212	2.053308202
SLFN12L	1.03750363	2.7040923	3.637251006	0.000289891	0.003186009	-0.19605403	2.052672733
PDE4DIP	1.036537026	5.726785592	3.598435435	0.000336114	0.003585279	-0.332555169	2.051297905
AGPAT4	1.035223756	4.417465514	2.923359792	0.003542227	0.022201471	-2.477471286	2.04943148
RP11-420G6.4	1.034770258	1.087065599	3.167641761	0.001584242	0.011979057	-1.751501913	2.04878736
LSM1	1.033049562	3.846372866	8.910982255	2.41E-18	1.04E-15	30.92172349	2.046345237
CISD2	1.03209974	3.843635431	5.196491191	2.47E-07	8.82E-06	6.450712544	2.044998437
HIST1H2BPS2	1.031560748	-0.951929459	2.70466431	0.006955616	0.036199066	-3.078837846	2.044234566
E2F2	1.030829376	5.44750939	2.661317055	0.007910593	0.039667233	-3.19256925	2.043198507
GZMM	1.028378862	1.142430035	3.281166885	0.001070178	0.008908549	-1.394709274	2.039730943
CTD-3094K11.1	1.027684813	-0.798724246	3.171714452	0.001562418	0.011872336	-1.738914745	2.03874991
SLC18B1	1.025344394	1.652826955	2.723633161	0.00657136	0.034720294	-3.028499435	2.035445219
RP11-564C4.6	1.024887887	-1.453538194	3.030241611	0.002507574	0.016911168	-2.166864292	2.034801252
CTB-31O20.2	1.024519707	3.661785609	5.675233482	1.82E-08	9.22E-07	8.938356597	2.034282031
RP11-263K19.4	1.024031843	-2.366911887	2.750658759	0.006056899	0.032781142	-2.956182142	2.033594231
SH2D2A	1.022916366	1.507678098	3.153103305	0.001664462	0.012426576	-1.796305637	2.032022485
TRMT5	1.022913121	1.652826987	3.861948416	0.000119852	0.001590552	0.622086772	2.032017914
ZNF778	1.022031824	2.462205448	5.64215775	2.20E-08	1.09E-06	8.759876214	2.030776998
RP11-510M2.10	1.020679849	2.112291914	3.825456682	0.000138769	0.001776855	0.485980447	2.028874811
C16orf85	1.020524206	0.019710492	4.269108236	2.15E-05	0.000391167	2.22541449	2.028655942
RP11-564C4.7	1.020310352	-1.766330223	2.917179735	0.003612553	0.022542016	-2.495096029	2.028355252
MIR3614	1.019699584	0.458992789	5.439632594	6.74E-08	2.86E-06	7.688371812	2.027496725
BAIAP2L2	1.019403303	-1.600600444	3.543518465	0.000413409	0.004216556	-0.523243186	2.027080388
AC010547.9	1.019196852	2.329274994	4.004643263	6.68E-05	0.001001255	1.166324428	2.026790332
BCL2L11	1.018997337	4.786140741	2.878685435	0.004079986	0.024680712	-2.60405168	2.026510059
SLC25A37	1.018798282	8.271770315	2.882179506	0.004035394	0.024493358	-2.594220636	2.026230473
AC051642.1	1.018705282	6.327708733	2.925362216	0.003519709	0.022095333	-2.471752765	2.02609986
ALDH8A1	1.016518931	0.607189998	2.570464048	0.010302604	0.04811367	-3.425065739	2.023031707
TMEM231	1.016386214	0.956124226	3.356577124	0.000819392	0.007251036	-1.150916227	2.022845612
LRRCC1	1.015943172	1.799023052	2.71621912	0.006719212	0.035269866	-3.048215622	2.022224504
GPR137C	1.013045266	0.420009366	3.445059879	0.00059508	0.005625828	-0.857963334	2.018166589
BLVRB	1.012546821	4.766857996	2.610519856	0.009178161	0.044172707	-3.323542609	2.017469441
ZNF23	1.012273686	2.512779894	4.054623074	5.42E-05	0.000842808	1.361464547	2.017087524
CPD	1.012059258	7.921444615	3.793698845	0.000157491	0.001968591	0.368550883	2.016787747
GRPEL2	1.01193938	3.318038095	4.452816342	9.45E-06	0.000196764	2.999460384	2.016620172
SLFN5	1.011659894	3.674987645	2.557828956	0.010681939	0.049441759	-3.456768659	2.016229541
KCNQ4	1.011645768	-0.756696126	2.84127991	0.00458621	0.026903523	-2.708562575	2.016209799
C12orf60	1.011539108	-1.888995355	3.074819617	0.002164517	0.015198474	-2.034083243	2.016060744
ZNF841	1.010535643	3.540661994	2.662669776	0.007879097	0.03954939	-3.189047446	2.014658963
SYNJ1	1.007682278	5.623947056	4.816605373	1.69E-06	4.59E-05	4.624386806	2.010678304
C19orf18	1.00706833	-0.700260375	3.225753472	0.001297915	0.010330589	-1.570401365	2.00982283
TTC25	1.00675944	-0.810375904	3.163103749	0.001608891	0.012100008	-1.765508555	2.00939256

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
ERCC6L	1.006607058	1.279111613	3.149481097	0.001685023	0.012520293	-1.807436917	2.009180333
ARHGAP11B	1.005923031	3.967407042	6.150559514	1.12E-09	8.25E-08	11.61047046	2.008227943
NUDT4P1	1.005541932	1.115023648	4.861169507	1.36E-06	3.80E-05	4.831809691	2.007697524
ATP6VOA1	1.00437547	6.32991131	3.302942151	0.000991288	0.008382377	-1.324868295	2.006074896
C9orf153	1.004172891	-2.175005681	2.782322242	0.005500567	0.030581545	-2.870560267	2.00579323
HAPLN3	1.00412141	2.235977376	2.695533832	0.007147683	0.036888683	-3.102944225	2.005721657
HLA-DOB	1.003968971	2.391574067	3.516995792	0.000456425	0.004547836	-0.614314571	2.005509737
BAG4	1.001056307	6.056319859	6.683820141	3.90E-11	4.36E-09	14.84381184	2.001464889
U3	-1.003619173	4.459566192	-2.640633366	0.008406443	0.041501567	-3.246199475	-2.005023537
RP11-121A14.3	-1.004243627	0.952999009	-3.317184756	0.000942643	0.008067509	-1.278942911	-2.005891577
HCN3	-1.005580953	1.492676545	-4.458395852	9.21E-06	0.000192827	3.023459478	-2.007751827
RP1-184J9.2	-1.008389221	2.193254469	-3.209172375	0.001374308	0.010820786	-1.622403658	-2.011663809
FAAH	-1.008421451	3.893688167	-3.012167756	0.002660338	0.017700106	-2.220157425	-2.011708751
ZEB2-AS1	-1.008482458	0.688250288	-2.785142776	0.005453323	0.030429275	-2.862886419	-2.011793821
RN7SKP4	-1.009295358	-0.658963928	-3.985949863	7.22E-05	0.001060733	1.093939894	-2.012927705
AMN	-1.009309625	2.58130592	-2.564324583	0.010485399	0.048783114	-3.44048962	-2.012947611
TMEM191A	-1.009754622	-0.950050019	-4.273398404	2.11E-05	0.000384554	2.243133145	-2.013568596
EXT2	-1.009772779	5.862938396	-6.590416199	7.14E-11	7.32E-09	14.25969022	-2.01359394
FOSL2	-1.010367102	8.705957256	-3.623247675	0.000305832	0.003325964	-0.245463324	-2.014423617
TTC39C	-1.010643903	4.675911808	-4.248304632	2.36E-05	0.000421998	2.139737424	-2.014810149
H2AFY	-1.011248709	9.948609399	-5.633627704	2.30E-08	1.13E-06	8.714005523	-2.015654974
SETD7	-1.012696051	4.549346418	-2.624515963	0.008811934	0.042897736	-3.287703969	-2.017678136
RELL1	-1.01341035	4.781289722	-4.63592997	4.03E-06	9.59E-05	3.802119995	-2.018677365
HK2P1	-1.01432603	-0.848070665	-3.102254852	0.001975384	0.014135255	-1.951418806	-2.019959028
GPX1P1	-1.015195927	2.225414335	-3.251264321	0.001188013	0.009645966	-1.489881095	-2.021177362
RP11-53I6.2	-1.015414737	3.596027271	-4.204031093	2.86E-05	0.000496628	1.958744777	-2.021483934
SORBS3	-1.016420862	2.947149789	-2.782412622	0.005499047	0.030581545	-2.870314488	-2.022894193
AC067940.1	-1.016850785	-0.764349419	-3.869383541	0.000116309	0.001555004	0.649971848	-2.023497105
ZYX	-1.016963558	7.986407405	-5.102634924	4.02E-07	1.32E-05	5.987266911	-2.023655284
GPR160	-1.017380518	3.77575879	-2.692494013	0.007212679	0.037146609	-3.110952167	-2.024240235
PCYOX1	-1.018632281	3.596758343	-3.907026365	9.98E-05	0.001379549	0.791947248	-2.025997341
RP11-399E6.1	-1.019334473	-1.454456434	-2.923844229	0.003536767	0.022174276	-2.476088186	-2.02698368
GCNT1	-1.019615746	4.430112165	-3.246006759	0.001209933	0.009771813	-1.50652639	-2.027378907
RP11-156P1.1	-1.019647668	1.782642335	-2.77241917	0.005669389	0.031291546	-2.897443029	-2.027423766
TENC1	-1.021933352	0.847086671	-3.600498279	0.000333493	0.003563085	-0.325336716	-2.03063839
CDK18	-1.022283629	2.123364134	-2.633978861	0.00857179	0.042013875	-3.263366085	-2.031131476
CNN2	-1.022316464	7.36497781	-4.99668715	6.90E-07	2.09E-05	5.473737898	-2.031177704
CTB-133G6.1	-1.02294809	5.263554668	-3.604567806	0.000328379	0.003523663	-0.311084527	-2.032067168
RP11-809O17.1	-1.02434351	1.825562111	-3.601347643	0.00033242	0.003555454	-0.32236339	-2.034033599
GALNT6	-1.024398106	4.413567661	-4.500672006	7.58E-06	0.000163305	3.206238357	-2.034110574
COMT	-1.025522005	5.621690383	-4.336384273	1.60E-05	0.000304891	2.505240253	-2.035695819
ERO1L	-1.026709057	5.978428792	-5.396251296	8.53E-08	3.51E-06	7.463640507	-2.037371482
CHCHD10	-1.027095624	2.042588094	-3.830585025	0.00013595	0.001752472	0.505032367	-2.037917465
CD244	-1.02871681	4.615843024	-2.643487036	0.008336416	0.041269116	-3.238824791	-2.040208802
CTA-331P3.1	-1.029140743	0.987368687	-2.554315407	0.01078961	0.049765506	-3.465557175	-2.0408084
KLHDC9	-1.029879346	-2.01513481	-2.585974978	0.009853378	0.046443255	-3.385936317	-2.041853482
RAB27A	-1.032035704	5.726693107	-3.736956182	0.000197004	0.002344028	0.161102364	-2.044907669
LDHA	-1.032622527	8.14969019	-5.031831788	5.78E-07	1.79E-05	5.642950974	-2.045739613
ZCCHC24	-1.032827235	2.880168132	-2.709111915	0.006863749	0.035777924	-3.067066152	-2.046029909
AC098614.2	-1.032969827	-1.126723843	-3.759830141	0.000180068	0.002188512	0.244363244	-2.046232143
IMPA2	-1.033388724	4.332785776	-3.504848305	0.000477493	0.004703205	-0.655802941	-2.046826368
AP1S3	-1.034233368	2.744353255	-2.736765293	0.006316653	0.033771308	-2.993447219	-2.04802506
SFMBT2	-1.035150859	6.605029144	-3.957670827	8.11E-05	0.001167565	0.985060858	-2.049327928
PPEF2	-1.035182193	-2.16771871	-2.829088905	0.004763113	0.027582004	-2.742333757	-2.049372438
XX-C283C717.1	-1.037418228	-1.792931165	-3.170369626	0.001569594	0.011917708	-1.743072852	-2.052551226
GFI1	-1.038873423	5.882532729	-3.08933252	0.002062491	0.01462742	-1.99044446	-2.054622606
MAP4	-1.039659877	7.07725693	-7.097036544	2.44E-12	3.58E-10	17.51739897	-2.055742944
SH3KBP1	-1.040656323	6.822151512	-5.525015279	4.22E-08	1.91E-06	8.135626098	-2.057163302
ARL17A	-1.041353868	1.30002203	-3.252924817	0.001181167	0.009594481	-1.484618533	-2.058158184
C5orf62	-1.041358998	6.632084278	-3.406463464	0.000684778	0.006305205	-0.986665218	-2.058165502

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
RP11-876N24.5	-1.041372669	1.640790339	-4.918769526	1.02E-06	2.97E-05	5.102601957	-2.058185006
KCTD3	-1.042955596	4.430418885	-3.657928004	0.000267773	0.002991764	-0.12275836	-2.060444489
APOBR	-1.045181845	4.700355397	-3.468314724	0.000546456	0.005266794	-0.779735743	-2.063626453
PVRL2	-1.045682581	5.660312198	-3.522945521	0.000446426	0.004472018	-0.593942894	-2.064342829
PLIN2	-1.046322553	7.294341236	-2.749305425	0.00608177	0.032850802	-2.959820225	-2.065258763
MAPK11	-1.046533053	2.430846871	-3.100613047	0.001986261	0.014188497	-1.956385939	-2.065560122
FOS	-1.047347875	9.015301039	-3.158823336	0.001632464	0.012249358	-1.778702085	-2.066727062
CPT1B	-1.050938689	5.263111523	-4.322766852	1.70E-05	0.000319342	2.44826056	-2.071877476
WDFY2	-1.05097188	5.990639711	-6.067306356	1.85E-09	1.28E-07	11.12804495	-2.071925142
HK2	-1.054255818	7.194785951	-3.38920741	0.000728821	0.006616234	-1.043748555	-2.076646738
P2RY8	-1.055161097	6.651094585	-3.754978826	0.000183541	0.002217174	0.226663294	-2.077950226
HLX	-1.057936845	4.020198123	-2.857687835	0.004357525	0.025978412	-2.662884363	-2.081952054
CD300A	-1.058010911	3.93244785	-3.142521906	0.001725183	0.012746899	-1.828787787	-2.082058941
CNN2P9	-1.05979687	1.562081701	-4.436009941	1.02E-05	0.000210879	2.927345476	-2.084637987
ADCY3	-1.060531278	5.787431976	-4.242292364	2.42E-05	0.000430145	2.115051739	-2.085699447
AL591845.1	-1.062535661	2.821844808	-3.0559113	0.002304395	0.015895454	-2.090636264	-2.088599191
RNU5E-2P	-1.065073823	-0.818475997	-3.381734482	0.000748701	0.006761546	-1.068381294	-2.092276939
RP11-405O10.2	-1.065906216	3.589249934	-5.164590643	2.92E-07	1.02E-05	6.292296478	-2.09348447
PRKAG2	-1.065953546	4.720636823	-5.465759286	5.84E-08	2.53E-06	7.824534369	-2.093553152
CD300LF	-1.067815867	3.890890624	-2.836342501	0.004657126	0.027172566	-2.722257255	-2.096257385
GPX1	-1.069268617	7.345996718	-4.361789718	1.43E-05	0.000276405	2.61200555	-2.098369316
PAM	-1.069758273	4.105599145	-2.832255373	0.004716579	0.027394411	-2.733575827	-2.099081631
RP11-231P20.3	-1.070559278	-0.650292044	-4.092184109	4.62E-05	0.000737853	1.509656569	-2.100247395
VAMP8	-1.071008056	5.516615644	-4.784781992	1.97E-06	5.22E-05	4.477379912	-2.100900819
KLF2	-1.071166462	6.578654404	-2.808730258	0.005072367	0.028915854	-2.798412273	-2.101131508
DAGLB	-1.072156843	6.521336577	-5.315902858	1.31E-07	5.11E-06	7.051883139	-2.102574388
RAB32	-1.07216529	5.038231695	-3.002492535	0.002745572	0.018127008	-2.248557503	-2.102586698
CFP	-1.072266674	5.382919177	-2.867325038	0.004228083	0.025444364	-2.635934684	-2.102734461
KIAA0930	-1.073737087	6.170089517	-3.382175736	0.000747513	0.006759532	-1.06692828	-2.104878687
UCN	-1.074182316	0.707025953	-5.140596289	3.30E-07	1.13E-05	6.173750375	-2.105528372
NDRG1	-1.075605038	7.396300187	-4.158513116	3.48E-05	0.00058261	1.774570952	-2.107605775
FAM195A	-1.079526634	3.087260258	-5.334290464	1.19E-07	4.68E-06	7.145599398	-2.113342554
MPG	-1.0797568	4.636614858	-5.367207199	9.98E-08	4.03E-06	7.314128113	-2.11367974
HILPDA	-1.079875389	3.933825401	-2.676583435	0.007561613	0.038353914	-3.152720943	-2.113853492
EMILIN2	-1.084799346	6.66381806	-3.142277823	0.001726607	0.012751029	-1.829535797	-2.121080457
FCHSD2	-1.085461195	6.551195361	-6.579003482	7.69E-11	7.80E-09	14.18883313	-2.122053744
RP4-635E18.7	-1.085860422	-1.162538908	-2.983118571	0.002923803	0.01905576	-2.305157096	-2.122641046
SAT1	-1.086098246	8.540632236	-3.599384028	0.000334907	0.003574325	-0.329236286	-2.122990987
NAIP	-1.086378642	2.748937984	-2.571515639	0.010271581	0.048025464	-3.422420229	-2.123403643
RHOBTB2	-1.08934558	3.763609921	-3.703390559	0.000224589	0.002604886	0.039817752	-2.127774967
ANO8	-1.095873821	3.806118042	-3.495825679	0.000493725	0.004824362	-0.686528127	-2.137425034
DLGAP3	-1.098900027	-0.455455095	-2.609712535	0.009199695	0.044247537	-3.325604083	-2.141913216
LRRC37A	-1.099898843	0.972824103	-4.862419672	1.35E-06	3.78E-05	4.837654796	-2.143396632
snoZ6	-1.100072365	-1.382634675	-3.102014378	0.001976974	0.014137471	-1.9521465	-2.143654447
SLCO4A1	-1.100411493	2.835355691	-3.083227705	0.002104857	0.014848059	-2.008825551	-2.144158406
GNA15	-1.102118854	7.195598569	-3.255038835	0.001172504	0.009551395	-1.477914837	-2.146697417
SLC27A3	-1.102445147	3.946354196	-3.849370635	0.000126079	0.001655422	0.575032817	-2.147182988
PLCB2	-1.1030198	7.599897264	-4.771826319	2.10E-06	5.53E-05	4.417797867	-2.148038424
FAM176B	-1.104438177	2.638246441	-3.62814549	0.000300165	0.003277799	-0.228202985	-2.150151294
B3GNTL1	-1.10631951	5.281260406	-4.083293606	4.80E-05	0.000762487	1.474461021	-2.152957007
KLHDC7B	-1.108147303	1.662095067	-2.608605707	0.009229291	0.044303733	-3.328429322	-2.155686381
SAPCD2	-1.108401476	2.415672944	-2.624489976	0.008812602	0.042897736	-3.287770687	-2.156066201
ANXA2	-1.108452993	5.793354112	-2.746147099	0.006140173	0.03312312	-2.968303694	-2.156143193
CHKA	-1.108453985	6.113088864	-5.569589982	3.30E-08	1.55E-06	8.371716584	-2.156144675
RBMS1P1	-1.112942759	1.760812804	-5.866272971	6.09E-09	3.57E-07	9.988284832	-2.162863711
AGPAT2	-1.116782517	4.990219751	-5.131429624	3.46E-07	1.17E-05	6.12859967	-2.168627877
OPRL1	-1.117267447	2.878958187	-3.806073732	0.000149929	0.001891995	0.414195996	-2.169356936
FAM125B	-1.11732347	4.532008747	-3.031131746	0.002500262	0.016879116	-2.16423153	-2.169441179
RP11-618P17.4	-1.117905355	4.474892782	-5.681587767	1.76E-08	8.94E-07	8.972756801	-2.17031636
C11orf75	-1.120091186	0.37000222	-2.635593696	0.0085314	0.041909339	-3.259204224	-2.173607104

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
EBPL	-1.120265187	4.116559695	-5.02208092	6.07E-07	1.87E-05	5.595890022	-2.173869275
APPL1	-1.121347435	6.984063433	-6.233874855	6.75E-10	5.30E-08	12.09933888	-2.17550063
CTD-3252C9.4	-1.123628521	5.1842366	-2.789270031	0.005384852	0.030158524	-2.851643578	-2.178943096
MIR21	-1.124531636	0.749904414	-3.056511313	0.002299832	0.015874468	-2.088846936	-2.180307525
PDE6G	-1.125240992	1.715366345	-4.099257276	4.49E-05	0.000720682	1.537710496	-2.181379819
ERLIN1	-1.126431626	6.643174015	-4.364083923	1.41E-05	0.000274497	2.621676365	-2.183180821
HAVCR2	-1.126511056	4.253716526	-2.912032981	0.003672089	0.022805907	-2.509745953	-2.183301023
MIR223	-1.126665365	0.038581278	-2.799012232	0.005226303	0.029504338	-2.825040378	-2.18353456
RP11-312P12.2	-1.128315938	0.237017156	-4.186473269	3.09E-05	0.000529394	1.887473621	-2.186034149
ADAP1	-1.12942727	4.596182654	-3.29869042	0.001006255	0.008494356	-1.338540587	-2.187718736
STAG3L1	-1.132717693	2.812365027	-4.411070803	1.14E-05	0.000231089	2.820816238	-2.192714065
RUFY3	-1.134710518	4.713239545	-4.160871111	3.45E-05	0.000578687	1.784064318	-2.195744999
ADAM15	-1.135702494	6.190995311	-4.691971175	3.09E-06	7.68E-05	4.053955593	-2.19725528
RP11-618P17.3	-1.135706608	1.979524956	-4.245289794	2.39E-05	0.000426792	2.127354633	-2.197261546
PCNX	-1.136551033	8.163204507	-7.197338843	1.22E-12	1.90E-10	18.18819434	-2.198548003
ARL11	-1.13797164	3.593898982	-4.027288744	6.08E-05	0.000925007	1.254450991	-2.200713957
PALM2-AKAP2	-1.139295451	6.277439009	-2.883056242	0.004024275	0.024433363	-2.591751981	-2.20273425
RP11-293M10.5	-1.140847968	-0.501422666	-2.755734506	0.005964432	0.03244933	-2.942521634	-2.205105939
CTD-2341M24.1	-1.143166964	0.206231443	-3.177398183	0.001532424	0.011716411	-1.721321975	-2.208653288
KB-1471A8.1	-1.146843991	0.718158167	-2.721855398	0.006606543	0.034841062	-3.03323187	-2.214289708
TNFSF12	-1.14705883	4.53843438	-3.413862449	0.000666663	0.006169906	-0.962102548	-2.214619475
AKAP2	-1.148516774	6.334374334	-2.90540919	0.003750025	0.023161903	-2.528562765	-2.216858633
KIAA1383	-1.148620697	1.832328584	-3.395035818	0.000713659	0.00651045	-1.024499734	-2.217018328
DBI	-1.152234711	3.626071264	-5.05189421	5.21E-07	1.64E-05	5.740051358	-2.222579018
TLE4	-1.153401488	7.17472655	-5.403963451	8.18E-08	3.39E-06	7.503468571	-2.224377252
FHAD1	-1.153848605	-1.962002316	-2.571161816	0.010282009	0.04804017	-3.423310468	-2.225066733
SNORD13	-1.154247352	1.428622836	-3.115825403	0.00188756	0.013655993	-1.910263624	-2.225681804
ATP5F1P1	-1.154406285	3.316771778	-5.004135115	6.65E-07	2.02E-05	5.509504055	-2.225927009
RAP1GAP2	-1.155126399	6.229164292	-5.061071477	4.98E-07	1.58E-05	5.7845907	-2.227038346
LCP1	-1.158886507	9.950581786	-5.099410504	4.09E-07	1.34E-05	5.971487431	-2.232850265
FLNB	-1.159817641	7.582350406	-3.182631333	0.001505278	0.011549027	-1.705096609	-2.234291841
SERPINB8	-1.160564913	5.380981238	-2.858142363	0.00435134	0.025949357	-2.661615314	-2.235449435
RP13-580F15.2	-1.161156467	-2.022612203	-2.636756746	0.008502416	0.041788686	-3.256205176	-2.236366234
ENO1	-1.164011357	9.332222212	-5.949845632	3.73E-09	2.33E-07	10.45776758	-2.240796068
LYST	-1.164136009	8.447195991	-3.201721223	0.001409972	0.011001226	-1.645686819	-2.240989687
CD38	-1.16528698	5.3387881	-3.514429231	0.000460803	0.004584163	-0.623092027	-2.242778243
IKBKE	-1.165726435	4.50025973	-4.535181608	6.47E-06	0.000141838	3.356665024	-2.243461514
SKAP2	-1.167077102	5.195981342	-3.052412249	0.002331172	0.016028697	-2.101064083	-2.245562851
AL133458.1	-1.167208093	4.829220007	-4.65306253	3.72E-06	8.96E-05	3.878802538	-2.245766748
C8orf73	-1.170568369	4.334801732	-4.323346456	1.69E-05	0.000319051	2.4506823	-2.251003608
ANXA4	-1.17386611	3.987142454	-3.822168014	0.000140606	0.001796102	0.473775992	-2.256154882
ETHE1	-1.174056395	4.218421629	-6.013878131	2.55E-09	1.69E-07	10.82165499	-2.256452478
HDAC9	-1.177902809	4.609564646	-3.029674479	0.002512243	0.016929088	-2.168541309	-2.262476503
CTSA	-1.179819091	7.141603596	-4.731575948	2.55E-06	6.50E-05	4.233673259	-2.265483669
MDFIC	-1.180536878	4.122317882	-3.134449349	0.001772872	0.013011802	-1.853496503	-2.2666111
NDRG3	-1.182459846	4.576130119	-5.657106534	2.02E-08	1.01E-06	8.840420625	-2.26963428
LRRC1	-1.183304368	1.454971292	-4.067590218	5.13E-05	0.000807028	1.412475438	-2.270963263
CACNB1	-1.18357732	2.603318545	-3.066481634	0.002225209	0.015514523	-2.059063543	-2.271392961
PRAGMIN	-1.184895837	3.37175016	-2.929032865	0.003478771	0.021879985	-2.461260141	-2.273469795
KCNE3	-1.1858813	3.701101397	-2.931162427	0.003455219	0.02176645	-2.455166818	-2.275023267
RP11-168G16.1	-1.185904804	-1.532429377	-2.890804554	0.003927211	0.023968766	-2.569902707	-2.275060331
TLR2	-1.190820451	5.835531344	-2.791054077	0.005355496	0.03003712	-2.846778679	-2.28282529
RP11-293M10.6	-1.190902687	1.152481706	-3.660181038	0.000265461	0.002976363	-0.114747404	-2.282955419
CHD5	-1.19187729	0.410726709	-2.600858808	0.009438833	0.045058187	-3.348170605	-2.284498174
LILRA2	-1.193074685	4.728023522	-2.943046555	0.003326436	0.021157248	-2.421082854	-2.286395029
DUSP3	-1.19349975	6.092835312	-5.274493498	1.64E-07	6.20E-06	6.841949724	-2.287068775
AL157871.2	-1.195665912	1.193723933	-4.279664084	2.06E-05	0.000376504	2.269041573	-2.290505317
CST3	-1.197160331	6.048338796	-2.599949653	0.009463701	0.045111598	-3.350483592	-2.292879172
RP11-522M21.3	-1.197556634	-2.891716305	-2.888357614	0.003957631	0.024102693	-2.576808999	-2.293509104
BCORL1	-1.198567592	4.904517175	-6.193740128	8.63E-10	6.54E-08	11.86308245	-2.295116826

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
CTC-232P5.3	-1.20208952	-2.709570911	-2.730536114	0.006436342	0.034171154	-3.010094808	-2.300726544
NAB2	-1.203684531	4.035721578	-4.094651943	4.58E-05	0.000730758	1.519439294	-2.303271582
TNFSF12-TNFSF13	-1.204841941	4.433439013	-3.524038766	0.000444611	0.00446575	-0.590196006	-2.305120135
CTD-237H9.6	-1.207592163	4.567092481	-4.570979365	5.47E-06	0.000124293	3.513870075	-2.309518596
BCL2	-1.207967139	5.902816575	-4.899605373	1.12E-06	3.21E-05	5.012169479	-2.31011895
CD97	-1.208999325	8.519888791	-5.126453904	3.56E-07	1.20E-05	6.104123557	-2.311772332
RGCC	-1.209105493	5.154495143	-2.838534043	0.004625527	0.027067042	-2.716181559	-2.311942461
RP11-875O11.3	-1.210047481	-1.78861135	-2.977834097	0.00297422	0.019339762	-2.320532854	-2.313452506
IL6R	-1.211818269	5.91662021	-3.498216554	0.000489374	0.004794686	-0.678393885	-2.31629382
UBTD2	-1.213822064	2.607900231	-4.547118386	6.12E-06	0.000136148	3.408953527	-2.319513212
LINC00310	-1.214111325	-1.892024552	-3.25109476	0.001188715	0.009647701	-1.490418333	-2.319978322
DENND1B	-1.214452185	6.184753497	-6.356814097	3.15E-10	2.65E-08	12.83178104	-2.32052652
RP6-109B7.3	-1.214453735	1.036783519	-2.602875278	0.009383885	0.044849985	-3.343037644	-2.320529013
GPI	-1.21509487	8.086034102	-5.840971831	7.05E-09	4.03E-07	9.847370889	-2.321560488
AP001029.1	-1.215492791	-1.402101315	-2.76792257	0.005747578	0.031599701	-2.909618301	-2.322200903
KCNQ5-IT1	-1.216182391	0.49711504	-2.825665648	0.004813887	0.027794686	-2.751791086	-2.323311168
KLF3P1	-1.218086917	0.31369625	-4.393507798	1.24E-05	0.000246159	2.746140857	-2.326380234
SCML2	-1.219640857	3.950070892	-2.902076043	0.00378981	0.023310217	-2.538015615	-2.32888735
AL133492.3	-1.21982642	-2.888206673	-2.585414063	0.009869313	0.046496215	-3.387355385	-2.329186916
MTND2P28	-1.221151247	4.357877646	-3.032650114	0.002487835	0.016812429	-2.159738884	-2.331326792
SLC25A43	-1.221749246	2.615391186	-4.40566626	1.17E-05	0.000236329	2.797806411	-2.332293331
U2	-1.222302169	3.555120663	-3.772327318	0.000171404	0.002102651	0.290061224	-2.333187368
STMN3	-1.222377066	4.366733098	-5.174542189	2.77E-07	9.75E-06	6.34161618	-2.333308499
APBB1IP	-1.227420556	6.208040581	-5.271848168	1.66E-07	6.27E-06	6.828591324	-2.341479742
UBTD1	-1.230044596	2.271992084	-4.102170405	4.43E-05	0.0007153	1.549278291	-2.345742409
HSPD1P11	-1.231987537	1.34668863	-2.642686078	0.008356018	0.041345467	-3.240895483	-2.348903651
TNFSF13B	-1.234314329	3.578504913	-3.010033626	0.002678928	0.017805007	-2.226429534	-2.352695042
MIR24-2	-1.236006095	-0.467651768	-2.7562136	0.00595577	0.032428955	-2.941230953	-2.355455531
TIAF1	-1.236680575	6.625906166	-6.912768741	8.54E-12	1.13E-09	16.30720666	-2.356556997
TNFSF13	-1.239103829	4.599792765	-3.61667591	0.000313593	0.003401904	-0.268587163	-2.360518564
INPP1	-1.239869114	2.932297043	-5.682395515	1.75E-08	8.92E-07	8.977132284	-2.361771046
RP11-1H15.1	-1.240735036	-0.09645619	-3.580103302	0.000360269	0.00377811	-0.396527336	-2.363189034
MIR27A	-1.242059915	-0.227791297	-2.701663075	0.007018231	0.036420072	-3.086770594	-2.365360231
RP11-79D8.2	-1.244030955	1.507337696	-5.138309304	3.34E-07	1.14E-05	6.162478614	-2.368594045
RAB3D	-1.244653463	6.599635781	-4.351115969	1.50E-05	0.00028881	2.567076524	-2.36961629
PYCARD	-1.247286323	4.02104086	-4.052491592	5.47E-05	0.000847221	1.353094667	-2.373944691
FAM116B	-1.248095663	3.399471618	-5.051597981	5.22E-07	1.64E-05	5.738614966	-2.375276827
RP11-108M9.4	-1.24924052	-0.535578488	-3.129400792	0.00180331	0.013166827	-1.86891762	-2.377162488
RP11-800A3.7	-1.249264453	-2.08095076	-3.226171162	0.001296042	0.010319834	-1.569088004	-2.377201924
C16orf74	-1.250877515	1.170162597	-2.881397819	0.004045332	0.024538027	-2.596421036	-2.379861333
USP13	-1.253332788	4.032134877	-4.784484865	1.98E-06	5.22E-05	4.476011725	-2.383914985
HRH4	-1.25340007	0.017266692	-2.614561507	0.009071034	0.043767018	-3.3132129	-2.384026165
CRYL1	-1.253530716	2.686225223	-5.35033507	1.09E-07	4.37E-06	7.227623304	-2.384242066
MFSD10	-1.254293025	7.080618112	-5.778328195	1.01E-08	5.55E-07	9.500922513	-2.385502214
NUDT7	-1.254534121	0.716923881	-2.785152601	0.005453159	0.030429275	-2.862859677	-2.385900901
PLB1	-1.254544126	4.259263672	-3.970365832	7.70E-05	0.001116114	1.033845948	-2.385917446
MLKL	-1.255807914	4.689568404	-4.914315296	1.04E-06	3.03E-05	5.081553224	-2.388008404
MAML3	-1.257134454	5.503621937	-6.171034892	9.91E-10	7.40E-08	11.73005038	-2.390205157
HMSD	-1.25790417	2.302753157	-3.017665041	0.002612996	0.017449662	-2.203981067	-2.391480736
WDR49	-1.257925443	4.166052911	-2.645615721	0.00828452	0.041073866	-3.233318558	-2.391516
RP11-325F22.2	-1.258083894	3.67753025	-3.636794409	0.000290398	0.003186009	-0.197668008	-2.391778674
RP11-946L16.1	-1.259292991	-1.841920733	-3.022450651	0.002572412	0.017213497	-2.189875322	-2.39378402
RP11-511P7.2	-1.261886526	-0.104710483	-2.5628604	0.010529417	0.048895936	-3.444162645	-2.3980912
RP11-258A12.3	-1.262485397	2.257695881	-3.589385543	0.000347842	0.003680616	-0.364175607	-2.399086869
EPHX1	-1.262971879	2.475984776	-4.426789446	1.06E-05	0.000218144	2.887892305	-2.399895985
GAS7	-1.263242142	7.253046952	-3.510778015	0.000467098	0.004625856	-0.635568165	-2.400345605
HSH2D	-1.263655345	6.754949263	-3.86319904	0.000119249	0.00158574	0.62677354	-2.401033188
TSPAN4	-1.265951354	3.486757383	-3.876789556	0.000112878	0.001519404	0.67779944	-2.404857408
RP11-319J24.3	-1.266051582	1.088194063	-2.702856823	0.006993265	0.036338167	-3.083616365	-2.405024486
CTD-2562J15.1	-1.267419672	6.412845829	-3.927437755	9.19E-05	0.001290883	0.869488625	-2.407306222

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
TYROBP	-1.269005016	5.936493963	-3.716425326	0.000213471	0.00250086	0.086790732	-2.409953009
RP11-443B.7.3	-1.269692825	2.410088187	-3.214750279	0.001348157	0.010670396	-1.604939294	-2.411102235
SLC25A29	-1.271692301	6.313854195	-4.533485037	6.52E-06	0.00014267	3.349243968	-2.414446173
SLCO3A1	-1.272554739	5.654462366	-4.662544194	3.55E-06	8.66E-05	3.921357178	-2.415889952
FAM211B	-1.273850241	1.590204006	-3.483788761	0.000516183	0.005019024	-0.727397793	-2.418060332
RP11-28F1.2	-1.275382736	0.43718206	-4.536811975	6.42E-06	0.000141081	3.363799008	-2.420630268
RP11-79G7.7	-1.276989146	1.262454602	-3.497483296	0.000490705	0.00480434	-0.680889151	-2.423327089
CBL	-1.277729859	7.730713789	-7.099796322	2.39E-12	3.53E-10	17.53574228	-2.4245716
HVCN1	-1.280261612	3.373974327	-3.648874404	0.000277255	0.003073413	-0.154901238	-2.428830162
FAM131B	-1.283955259	-0.390547608	-3.354405557	0.000825777	0.00729774	-1.158012361	-2.43505652
AC093673.5	-1.284863001	2.866601076	-5.232531092	2.04E-07	7.50E-06	6.630793878	-2.436589137
NBEAP1	-1.286920484	-2.151188755	-2.672366791	0.007656594	0.038677822	-3.163749676	-2.44006653
TMCO4	-1.287043142	3.939689559	-5.955133028	3.62E-09	2.27E-07	10.48767804	-2.440273992
DFNB31	-1.287358413	3.079360777	-3.303925496	0.000987856	0.008367601	-1.3217037	-2.440807323
CLSTN1	-1.289125347	6.399331758	-5.514314011	4.48E-08	2.01E-06	8.079211744	-2.44379852
CD99P1	-1.289282137	4.127719068	-5.010222984	6.45E-07	1.97E-05	5.538776411	-2.444064124
PTGER4	-1.289454291	7.508798767	-4.351467816	1.49E-05	0.000288637	2.568555867	-2.444355786
SLC27A1	-1.290492741	4.007605309	-4.789653491	1.93E-06	5.13E-05	4.499823382	-2.446115864
SMYD3	-1.291868174	4.862055678	-4.546284216	6.14E-06	0.000136524	3.405295205	-2.448449048
MYO18A	-1.295281178	8.095752839	-7.111145646	2.21E-12	3.29E-10	17.61124489	-2.454248235
AC108448.2	-1.295798274	-0.776184928	-3.429418082	0.000630024	0.005888654	-0.910292324	-2.455128053
TTYH2	-1.296478552	3.510975378	-5.060400505	4.99E-07	1.58E-05	5.781331725	-2.456286001
AC078953.1	-1.297985141	3.153657639	-3.268899372	0.001117145	0.009213348	-1.43385657	-2.45885241
MBOAT7	-1.301759258	7.064157134	-5.872757308	5.86E-09	3.46E-07	10.02449047	-2.465293233
ZDHHC1	-1.307706293	1.198629499	-4.07413947	4.99E-05	0.000790045	1.438299078	-2.475476567
IER5L	-1.308237273	2.408935624	-3.396534067	0.000709809	0.006490289	-1.019546421	-2.476387828
CERS6	-1.308430775	6.908555399	-7.010064123	4.42E-12	6.25E-10	16.94261837	-2.476719996
FOSB	-1.310156519	8.461422406	-3.302195588	0.000993901	0.008400823	-1.327270264	-2.479684408
AL928654.7	-1.310800953	3.745333857	-3.140058315	0.00173961	0.012817863	-1.836335021	-2.480792299
ENO1-IT1	-1.310907662	3.083454674	-5.957548652	3.56E-09	2.25E-07	10.50135129	-2.480975799
DIAPH2	-1.314543742	6.078579399	-4.403736755	1.18E-05	0.000237915	2.789598115	-2.487236584
AC093627.10	-1.317132607	2.220999658	-3.540536069	0.000418049	0.004252927	-0.533517165	-2.491703849
SLC4A8	-1.317311313	2.779303632	-4.394904709	1.23E-05	0.000245105	2.752069843	-2.492012514
AC104634.3	-1.318374584	-2.153564567	-2.995265474	0.002810862	0.018502501	-2.269712883	-2.493849812
RNPEP	-1.319226028	5.831362359	-7.038403473	3.65E-12	5.19E-10	17.12920431	-2.495322058
RNASET2	-1.319808002	6.330586056	-5.815408174	8.18E-09	4.60E-07	9.705571326	-2.496328857
A1BG	-1.320171736	1.152849661	-4.280240447	2.05E-05	0.000376468	2.271426658	-2.496958314
CMTM7	-1.324207531	4.428141759	-5.129060911	3.51E-07	1.18E-05	6.116944907	-2.503953084
RRAGD	-1.325059859	4.674139008	-4.100601469	4.46E-05	0.000718327	1.543047189	-2.505432827
OSBPL1A	-1.325749934	3.698068908	-2.704271132	0.00696379	0.036213539	-3.079877571	-2.506631523
CHRN1	-1.325948719	3.209494876	-6.029186334	2.33E-09	1.56E-07	10.90918468	-2.506976928
ANKRD26P4	-1.326320447	-1.455568789	-4.597199123	4.84E-06	0.00011215	3.629764489	-2.507622965
GPSM1	-1.327063966	4.559343253	-3.456599515	0.000570469	0.005439935	-0.819209022	-2.508915646
TNFRSF10B	-1.327907938	6.155185217	-5.396270314	8.53E-08	3.51E-06	7.463738655	-2.510383784
CRIP2	-1.328272036	0.920624595	-2.748880506	0.006089599	0.032877186	-2.960962143	-2.511017418
FSTL3	-1.329912388	3.138928439	-3.832924887	0.000134682	0.001749804	0.513733239	-2.513874081
RP11-443B.7.1	-1.33020637	1.287272266	-3.467559058	0.000547976	0.005276304	-0.78228582	-2.514386393
METRN	-1.331702374	1.495610078	-3.954189165	8.23E-05	0.001180132	0.971707758	-2.516995041
MLNR	-1.331827499	-1.260435769	-2.604105337	0.009350507	0.044781419	-3.339904582	-2.517213349
CPNE2	-1.331929508	4.82056425	-4.952517326	8.62E-07	2.56E-05	5.262668344	-2.517391341
BRI3BP	-1.332293332	5.258542095	-3.74656208	0.000189717	0.00227098	0.196007584	-2.518026265
COL6A1	-1.333041899	0.98057163	-2.658736246	0.007970996	0.039919538	-3.199283482	-2.519333126
RP11-32B5.1	-1.336087013	0.963270685	-2.984934257	0.002906661	0.018950282	-2.29986798	-2.524656329
NETO2	-1.337353075	2.725549954	-3.023124242	0.002566746	0.017204675	-2.187888131	-2.526872857
AL392086.1	-1.337714758	-4.249109333	-2.578474638	0.010068372	0.047319142	-3.404886418	-2.527506423
CTB-104H12.4	-1.338365289	0.172754155	-2.874051648	0.004139814	0.024989172	-2.617071391	-2.528646367
LINC00327	-1.341383962	-2.814341265	-2.937552091	0.003385423	0.021435958	-2.436857945	-2.533942807
CLEC12B	-1.342952004	1.513891798	-2.757150355	0.005938867	0.032363636	-2.938706696	-2.536698405
GLIPR1	-1.343572579	5.936692606	-3.610344595	0.000321245	0.003465909	-0.290826292	-2.5377898
AGAP3	-1.344357092	4.207718993	-3.678785779	0.000247073	0.002812909	-0.048412449	-2.539170183

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
PM20D2	-1.344679882	4.994140315	-6.076947907	1.75E-09	1.22E-07	11.18360297	-2.539738363
FNDC3B	-1.345707505	7.803176542	-5.451213697	6.33E-08	2.70E-06	7.748652495	-2.541548048
CHST9-AS1	-1.350905085	-2.760306943	-2.9720517	0.003030297	0.019604721	-2.33732671	-2.550720966
OSBPL5	-1.355216356	5.953878558	-5.138298771	3.34E-07	1.14E-05	6.16242671	-2.558354801
CITED4	-1.355868972	4.769303103	-4.151109622	3.60E-05	0.000598914	1.74479798	-2.559512357
KIAA1549	-1.361694215	3.825320322	-3.054933343	0.002311851	0.015938882	-2.093551935	-2.569867923
RP11-76E17.3	-1.363348694	-0.367701515	-2.890515326	0.003930795	0.023968766	-2.57071933	-2.572816733
TTLL10	-1.364870679	-2.231633626	-2.699564887	0.007062306	0.036572063	-3.092311293	-2.575532382
GAA	-1.372615244	5.355761833	-3.868507748	0.000116721	0.001559461	0.646684526	-2.589395334
LRP5L	-1.373338298	5.316772563	-4.711402233	2.81E-06	7.07E-05	4.141949139	-2.590693419
AC092964.1	-1.373820066	0.184629944	-4.760548473	2.22E-06	5.77E-05	4.366057478	-2.591558689
AC114730.5	-1.375639508	-3.718497163	-2.745312961	0.006155682	0.033179645	-2.970542641	-2.594829072
RP11-380M3.1	-1.376305499	-1.013568924	-3.28808203	0.001044516	0.008753853	-1.372578909	-2.5960272
hsa-mir-4763	-1.377083449	2.144779227	-2.701156083	0.007028858	0.036456099	-3.088109799	-2.597427443
LRP3	-1.382268277	3.91426848	-2.664199015	0.007843627	0.039411864	-3.185063955	-2.606778998
CTC-786C10.1	-1.382800235	-3.329926873	-2.897008418	0.003851034	0.023613391	-2.552367036	-2.60774036
LY75	-1.383176622	7.076508302	-5.910412945	4.70E-09	2.84E-07	10.23547842	-2.608420787
RP11-309I15.1	-1.388678136	-3.255390554	-2.774579823	0.005632161	0.031155596	-2.891585791	-2.618386621
TRPM2	-1.389324389	5.426153454	-3.652354353	0.000273573	0.003044543	-0.142555589	-2.619559786
SPTAN1	-1.389761734	7.912487837	-9.085844321	5.54E-19	2.55E-16	32.35196814	-2.620354012
C10orf55	-1.391171022	-0.951026235	-3.457418904	0.000568758	0.005426234	-0.816452405	-2.62291494
PGAM1P10	-1.393503175	-0.976054886	-2.732662336	0.00639526	0.034062337	-3.004416642	-2.627158376
PIWIL4	-1.401387597	6.261165511	-4.216971652	2.70E-05	0.000473612	2.011457482	-2.641555272
NTNG2	-1.401779214	4.800401129	-2.94288792	0.003328126	0.021161194	-2.421538714	-2.642272414
C9orf118	-1.404412002	-2.006964798	-3.362909228	0.000801037	0.007123653	-1.130198887	-2.647098725
ST3GAL4	-1.407714195	5.08760516	-4.399815904	1.20E-05	0.000240455	2.772929081	-2.653164624
DND1P1	-1.407965742	0.156875715	-3.917442802	9.57E-05	0.001334287	0.831469627	-2.653627268
AL356356.1	-1.40867402	0.139725143	-2.818294917	0.004924881	0.028311627	-2.772115746	-2.654930363
FAM204BP	-1.410056003	2.1602732	-5.943581283	3.87E-09	2.39E-07	10.42236252	-2.657474784
TBXA2R	-1.411258528	1.823473267	-2.775689674	0.005613124	0.031058974	-2.888575391	-2.659690786
LY75-CD302	-1.411310505	6.828632871	-6.025129217	2.39E-09	1.59E-07	10.88596668	-2.659786608
PLCD3	-1.412018185	2.934302796	-4.354254852	1.48E-05	0.000285337	2.580278042	-2.661091625
RP11-483P21.2	-1.414739769	-1.737790788	-2.902973324	0.003779062	0.023273048	-2.535471962	-2.666116401
DISP1	-1.416260672	1.207592154	-4.02343262	6.18E-05	0.000935426	1.239410652	-2.668928529
C10orf126	-1.419979701	-3.278256614	-2.717261499	0.006698245	0.035211611	-3.045446819	-2.67581746
RP11-12A2.1	-1.421522065	0.650835801	-2.732444483	0.006399458	0.034066743	-3.004998629	-2.678679666
UNC5B	-1.421832552	1.152194314	-2.577602545	0.01009364	0.047406326	-3.407086295	-2.679256216
KANK1	-1.42186493	3.300857726	-3.672809333	0.000252845	0.002861773	-0.069757045	-2.679316347
DISC1	-1.424042718	5.854888728	-4.925112213	9.89E-07	2.89E-05	5.132606012	-2.683363903
RP11-139K1.2	-1.42539136	0.475467502	-3.990640385	7.08E-05	0.00104775	1.112071724	-2.685873504
CDCA7	-1.425502443	4.700324858	-3.38965637	0.000727643	0.00661202	-1.042266977	-2.686080316
TCF7L2	-1.4283223	4.656428331	-4.676360052	3.33E-06	8.20E-05	3.983512348	-2.691335598
RNU5D-1	-1.43313691	0.608727007	-3.418923323	0.00065453	0.006066133	-0.945271828	-2.700332217
ZNF516	-1.434012492	6.834593639	-4.190400241	3.04E-05	0.000523193	1.903389115	-2.701971565
RP11-334A14.3	-1.437803014	-0.195791708	-3.267495041	0.001122642	0.009244161	-1.438328832	-2.709080031
RPA4	-1.439178272	0.495170018	-4.537740682	6.39E-06	0.00014063	3.367863841	-2.711663709
ABCA2	-1.442651866	6.521845398	-5.380700314	9.28E-08	3.79E-06	7.383493081	-2.718200482
RP4-728D4.2	-1.449775818	1.533110366	-5.300302699	1.43E-07	5.50E-06	6.972613012	-2.731656006
ST3GAL6	-1.451322125	3.975014948	-3.309053652	0.000970136	0.008263491	-1.305185376	-2.734585461
RP11-274M4.1	-1.453119748	-3.524440642	-2.731061695	0.006426165	0.034144608	-3.008691626	-2.737994879
TIMP2	-1.453848335	6.530570844	-5.333048718	1.20E-07	4.70E-06	7.139260972	-2.739377965
PLXNA3	-1.455375508	4.787435609	-5.597102222	2.83E-08	1.35E-06	8.518323354	-2.742279284
CD44	-1.456954465	9.16237891	-6.344331093	3.40E-10	2.84E-08	12.75680971	-2.745282213
FBXO41	-1.458787045	5.757739487	-5.338078388	1.17E-07	4.60E-06	7.16494324	-2.748771616
HCST	-1.460495803	4.093162243	-5.122810075	3.62E-07	1.21E-05	6.086213422	-2.752029248
ANTXR2	-1.461573522	6.855168904	-6.458750047	1.66E-10	1.54E-08	13.44906113	-2.754085831
RSPO1	-1.462106652	-3.604744797	-2.572505006	0.010242469	0.047914714	-3.419930281	-2.755103757
RP11-57H14.2	-1.468629573	-0.876589934	-4.445986485	9.75E-06	0.00020172	2.970122446	-2.767588734
KCNG2	-1.469054358	-0.760890794	-2.652324152	0.008122863	0.040454842	-3.2159374	-2.768403738
RP11-32B5.7	-1.469650319	0.089190622	-2.808989404	0.005068319	0.028901103	-2.79770095	-2.769547571

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
DISC1-IT1	-1.471936374	-1.026852854	-3.692158307	0.000234603	0.002700461	-0.000530875	-2.773939599
C20orf201	-1.474238672	-2.140294543	-3.752764724	0.000185147	0.002231125	0.218592554	-2.778369873
C21orf128	-1.474526035	-2.298347721	-2.817356249	0.004939181	0.028369109	-2.774700358	-2.778923336
ZNF469	-1.476949945	3.364742735	-3.893506311	0.000105483	0.001442425	0.740801091	-2.783596205
IRGM	-1.477125246	1.54420307	-4.20869897	2.80E-05	0.000489554	1.977741127	-2.783934457
CRIP1	-1.477475533	3.813993769	-3.323321012	0.000922376	0.007918025	-1.259096972	-2.78461048
JDP2	-1.478255482	4.545195257	-4.260969317	2.23E-05	0.000402096	2.191847356	-2.786116301
RP11-616M22.3	-1.481126113	-3.973174782	-2.790492714	0.005364718	0.030071293	-2.848309786	-2.791665551
AC084117.3	-1.485102646	0.062450518	-5.023198846	6.03E-07	1.86E-05	5.601281114	-2.799370896
ADORA3	-1.485387897	0.080230535	-4.16846621	3.34E-05	0.000563892	1.814677735	-2.799924444
CYSLTR1	-1.48823732	3.706198026	-4.878686812	1.25E-06	3.53E-05	4.913841721	-2.805459955
S100B	-1.488681853	0.953024042	-2.891695024	0.003916193	0.02393135	-2.567388002	-2.806324525
CXorf21	-1.488976265	4.389706149	-3.788651065	0.000160678	0.0020021	0.349973439	-2.806897274
NTRK2	-1.489052138	-3.010602984	-2.629748616	0.008678409	0.042379808	-3.274256639	-2.807044894
AP001619.1	-1.492871938	-0.228662126	-5.330028313	1.22E-07	4.75E-06	7.12384929	-2.81448691
NAAA	-1.494110651	4.248090627	-4.543092776	6.23E-06	0.000138023	3.391304811	-2.816904494
AHNAK	-1.494986275	10.79265592	-3.815508775	0.000144395	0.001837391	0.449094333	-2.818614695
CCDC78	-1.496013585	1.492286952	-4.393213909	1.24E-05	0.000246238	2.744893718	-2.82062248
PROCR	-1.502486196	-0.71932192	-3.372057681	0.000775193	0.006950042	-1.100199672	-2.833305554
PYGL	-1.503507706	7.242796161	-4.973735094	7.75E-07	2.33E-05	5.363837173	-2.835312407
RP5-991C6.4	-1.504001271	0.352432062	-3.839886462	0.000130975	0.00170612	0.539650615	-2.836282571
AP002380.1	-1.504943614	-3.069149681	-2.660652969	0.007926096	0.039734904	-3.19429755	-2.838135784
DUSP6	-1.509238537	6.224389202	-3.3904942	0.000725448	0.006602781	-1.0395016	-2.846597544
ITGA11	-1.509701687	-2.104507787	-2.84238999	0.004570402	0.02689903	-2.705480368	-2.847511536
RP3-407E4.3	-1.510607469	-3.690013627	-2.712549521	0.006793494	0.035514002	-3.057954619	-2.84929988
RP11-54O7.3	-1.512061436	-2.618753309	-2.65035701	0.008169971	0.040617892	-3.221038645	-2.85217289
RP11-514O12.4	-1.513738144	4.101779489	-6.401332234	2.38E-10	2.11E-08	13.10025427	-2.855489627
MEGF6	-1.514216384	5.649333396	-4.126780495	3.99E-05	0.000652947	1.647319586	-2.856436353
RD3	-1.514495167	-4.120603736	-2.863052406	0.004285033	0.025708901	-2.647893769	-2.856988377
LY86	-1.514831594	3.047920968	-2.644048405	0.008322702	0.041219658	-3.237373131	-2.857654685
IL3RA	-1.518092014	4.424823875	-5.034133634	5.71E-07	1.78E-05	5.654073094	-2.864120147
ARRDC1	-1.518562487	5.512277888	-7.221996253	1.03E-12	1.65E-10	18.35439184	-2.865054311
CEACAM4	-1.519624594	2.253980436	-2.791048664	0.005355585	0.03003712	-2.846793444	-2.867164329
NDST1	-1.520001931	6.513826142	-6.770643099	2.20E-11	2.56E-09	15.39349426	-2.867914335
FUT4	-1.520417572	7.902818409	-4.654859856	3.69E-06	8.92E-05	3.886862749	-2.868740702
TFEC	-1.521083663	5.176431581	-3.293197107	0.001025903	0.008623422	-1.356179939	-2.870065502
TBKBP1	-1.524268553	4.303412123	-5.683714155	1.74E-08	8.88E-07	8.984276469	-2.87640845
ZNF467	-1.525305831	3.724760083	-4.148644726	3.63E-05	0.000603711	1.734896821	-2.878477292
SCGB3A1	-1.525348963	-2.772925637	-3.145018626	0.001710674	0.012677313	-1.821133147	-2.878563351
CSF3R	-1.525421536	8.326849167	-4.65907475	3.61E-06	8.77E-05	3.905776365	-2.878708156
VAT1	-1.525636388	6.95129001	-5.701678301	1.57E-08	8.12E-07	9.081757793	-2.879136897
AL163953.3	-1.526577165	-0.564708646	-5.042609934	5.47E-07	1.71E-05	5.6950707	-2.881014986
DUSP10	-1.526859767	7.379816947	-5.744269026	1.23E-08	6.60E-07	9.314022441	-2.881579388
ASB13	-1.527981194	2.854977282	-4.79263955	1.90E-06	5.07E-05	4.513591217	-2.88382015
NLRP3	-1.531199789	6.204104514	-4.137610886	3.81E-05	0.000627213	1.690644918	-2.89026102
IL13RA1	-1.532038333	4.521338903	-3.365401058	0.00079392	0.007079446	-1.122035672	-2.891941428
LINC00422	-1.533373451	1.808569353	-3.814493182	0.000144981	0.001841811	0.445333828	-2.894618966
ME1	-1.534016263	-0.655330803	-2.714118861	0.006761636	0.035404207	-3.05379123	-2.89590899
TPSG1	-1.534248783	-3.746409051	-2.621523461	0.00888912	0.043144645	-3.295382493	-2.896375763
LPAR6	-1.535957649	3.480396037	-2.655835912	0.00803937	0.040150182	-3.206821332	-2.89980854
CD99	-1.539803154	7.030779206	-4.735981369	2.50E-06	6.39E-05	4.253753227	-2.907548292
SSPO	-1.540908499	3.215001442	-4.416846506	1.11E-05	0.000226276	2.845436232	-2.909776813
MYO1B	-1.542618701	0.698068051	-3.035033428	0.002468443	0.016726882	-2.152682529	-2.913228171
AFF2	-1.543617852	5.33406022	-3.258153754	0.001159846	0.009479505	-1.468029448	-2.91524645
SLC1A3	-1.546433984	2.301972157	-3.369435686	0.00078252	0.006999872	-1.108805745	-2.920942552
TMEM51	-1.55061524	-0.319905512	-2.648436173	0.008216206	0.040786269	-3.226016215	-2.929420383
RP11-4C20.4	-1.554732982	-1.462492573	-3.098198677	0.002002355	0.014287989	-1.963685717	-2.937793481
CEBDP	-1.555039158	4.338560322	-3.022694938	0.002570356	0.017213497	-2.18915469	-2.93841702
DGCR6	-1.555398805	2.929934712	-5.737940157	1.28E-08	6.80E-07	9.279406376	-2.939149626
PRDM8	-1.556812765	4.337472686	-3.647705933	0.000278501	0.003085502	-0.159044002	-2.942031646

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
SCD5	-1.557312477	0.889037459	-3.313803042	0.000953989	0.008143474	-1.289864762	-2.943050866
RHPN1-AS1	-1.559190213	-0.384688765	-3.503278392	0.000480281	0.004725665	-0.661154591	-2.94688388
PDZD7	-1.561131176	0.695575782	-2.732233802	0.006403521	0.034079201	-3.00556141	-2.950851206
ARHGAP10	-1.561155664	3.744863099	-3.364463585	0.000796591	0.00709747	-1.125107519	-2.950901293
MANEAL	-1.562622072	0.342195071	-2.935580362	0.003406822	0.021536995	-2.442511894	-2.953902223
KBTBD11	-1.563554171	4.976022216	-3.383522725	0.000743898	0.006733541	-1.062491609	-2.955811301
RP11-403B2.7	-1.566841317	-0.584416199	-3.102169305	0.00197595	0.014135255	-1.951677686	-2.962553724
BAIAP2	-1.567578242	3.033212617	-4.825005654	1.62E-06	4.45E-05	4.66334654	-2.964067376
PPP1R26	-1.567938272	2.383966116	-3.014955426	0.002636234	0.017575188	-2.211958019	-2.964807164
MS4A3	-1.568410194	4.971536888	-2.686673421	0.007338615	0.037550859	-3.126260795	-2.965777144
UBASH3B	-1.569125873	6.156625781	-5.080167214	4.51E-07	1.46E-05	5.877512284	-2.967248744
LATS2	-1.570879354	6.564945202	-6.528568607	1.06E-10	1.03E-08	13.87704794	-2.970857392
SCMH1	-1.571002487	5.54792213	-8.056702845	2.26E-15	6.48E-13	24.27774901	-2.971110963
AC093415.4	-1.572032784	-1.762347568	-2.713297798	0.006778287	0.035482001	-3.055969769	-2.973233533
PLXND1	-1.575771876	7.5566575993	-5.102663879	4.02E-07	1.32E-05	5.987408653	-2.980949379
ADAMTSL4	-1.577035038	4.138426373	-3.501566127	0.000483339	0.004751031	-0.666988834	-2.983560512
TOP1MT	-1.580795261	5.155984303	-4.523884754	6.81E-06	0.000148312	3.307301002	-2.991346972
RHPN1	-1.587721839	4.075502406	-3.784530109	0.000163324	0.002028689	0.334824806	-3.005743374
RP11-18F14.4	-1.59007437	-0.872725337	-3.637216354	0.00028993	0.003186009	-0.196176523	-3.010648688
CERS1	-1.591382129	-1.300103841	-2.987803133	0.002879764	0.018805902	-2.291504468	-3.013378986
MRC2	-1.593781008	5.096120259	-3.715198775	0.000214495	0.002511366	0.082363812	-3.018393729
CTA-221G9.10	-1.595748001	-0.782262944	-4.031399728	5.97E-05	0.000912743	1.270500727	-3.022511861
TNFRSF10D	-1.596408862	4.230916855	-5.232770465	2.04E-07	7.50E-06	6.63199389	-3.023896712
CDH5	-1.599150308	-2.269636111	-2.603348833	0.009371023	0.044836595	-3.341831633	-3.029648261
TMEM221	-1.600890221	-3.783609035	-3.204949353	0.001394417	0.010918611	-1.635606149	-3.033304269
SHANK1	-1.601298801	3.297223956	-2.581689644	0.009975708	0.046919262	-3.396770143	-3.034163441
UTF1	-1.602139017	-3.078922743	-3.186150556	0.001487273	0.011455305	-1.694170564	-3.035931033
NDRG2	-1.602474125	2.19821391	-3.826262088	0.000138323	0.001773811	0.48897091	-3.036636298
RAB17	-1.602524662	-1.560120128	-2.747591653	0.006113398	0.032996676	-2.96442472	-3.036742671
SPATA20	-1.603471556	4.996688001	-5.124696051	3.59E-07	1.20E-05	6.095481857	-3.038736452
OXER1	-1.610789705	1.529017321	-4.644536851	3.87E-06	9.27E-05	3.840609173	-3.054189769
ASPH	-1.618313828	5.430154345	-6.201443728	8.23E-10	6.34E-08	11.90832108	-3.070159968
PRKAG2-AS1	-1.627429784	-0.505541992	-3.943118673	8.61E-05	0.001223556	0.929325085	-3.089620804
MFSD7	-1.627610028	1.740309196	-3.702959254	0.000224966	0.00260773	0.038266214	-3.090006833
NPDC1	-1.62850826	2.209191807	-3.232664088	0.001267251	0.010153127	-1.548650582	-3.09193129
HLA-DQB2	-1.630801635	0.88507005	-2.839918424	0.004605667	0.026994173	-2.712341209	-3.096850278
RP11-176D17.3	-1.632712115	-2.960633382	-2.765749509	0.005785712	0.031756419	-2.915495244	-3.100953979
GPR32	-1.634603084	-4.038204914	-2.71429589	0.006758051	0.035404207	-3.053321431	-3.105021125
RNU6-51	-1.640507613	-1.003611669	-5.870662885	5.93E-09	3.49E-07	10.01279207	-3.117755109
SIRPB2	-1.649156067	3.934046527	-3.149773167	0.001683356	0.012514622	-1.806539831	-3.136501096
GPR114	-1.651529436	3.797334768	-3.423865965	0.00064288	0.005980568	-0.928810814	-3.141665182
ARHGEF6	-1.65158106	7.548551557	-6.436304991	1.91E-10	1.73E-08	13.31236957	-3.141777603
FXYD6	-1.652097932	0.73185586	-3.133220085	0.001780239	0.013056966	-1.857253608	-3.142903404
C1orf233	-1.652929718	1.67446492	-3.823581237	0.000139814	0.001787139	0.479019305	-3.144715968
MMP19	-1.655676105	0.698053373	-3.129744823	0.001801221	0.013163782	-1.867867531	-3.15070811
GPRC5C	-1.658479554	0.481079916	-3.675679011	0.000250058	0.002837096	-0.059512337	-3.156836526
TRIM47	-1.659987809	0.166147369	-3.561961003	0.000385766	0.00399432	-0.45952377	-3.160138543
BIK	-1.671466627	0.735066666	-3.364439814	0.000796658	0.00709747	-1.125185399	-3.185382513
GDF1	-1.676255547	-1.725931152	-3.129611529	0.00180203	0.013163782	-1.868274399	-3.195973723
GLIS2	-1.677049223	-1.917945164	-3.029607102	0.002512798	0.016929088	-2.168740524	-3.197732423
RP11-341G23.4	-1.678758881	-1.555287549	-3.539521856	0.000419639	0.004264708	-0.53700908	-3.201524124
HPCAL1	-1.680770331	5.173368628	-8.881468336	3.08E-18	1.27E-15	30.68264274	-3.2059909
LGALS1	-1.682244695	5.94184209	-3.982710557	7.32E-05	0.00106917	1.081429973	-3.209268942
RP11-66B24.2	-1.685475877	-1.814654594	-2.843533959	0.004554162	0.026818416	-2.702302827	-3.216464748
CXCR7	-1.690145554	0.799327929	-2.891847649	0.003914307	0.023928356	-2.566956908	-3.226892582
PCDH18	-1.690531487	-3.392178618	-2.845291681	0.004529313	0.026696904	-2.697418048	-3.227755919
SLCO2A1	-1.692342267	-3.374789242	-3.360293423	0.000808573	0.007177764	-1.138761884	-3.231809738
LDLRAD2	-1.692825107	2.68319173	-2.918903435	0.003592811	0.022447414	-2.49018394	-3.232891539
NPW	-1.69376499	1.135768745	-3.517336481	0.000455847	0.004546292	-0.613148967	-3.23499838
ALDH1A3	-1.694712908	-2.196972032	-2.914369358	0.003644953	0.022680087	-2.503098749	-3.237124624

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
PADI3	-1.694834352	-3.296288313	-2.792798809	0.005326927	0.029927289	-2.842018025	-3.237397131
OLIG1	-1.696427631	1.248208237	-2.866228852	0.004242628	0.025485391	-2.639004577	-3.240974414
CATSPER1	-1.698859732	0.003042816	-4.036842014	5.84E-05	0.000896518	1.291772368	-3.24644267
CD151	-1.698869286	5.12078038	-6.141699608	1.18E-09	8.68E-08	11.5588409	-3.246464168
RNASE3	-1.705064483	4.378289558	-2.565523941	0.010449464	0.048676109	-3.437479393	-3.260435056
UMODL1	-1.706255902	1.149716369	-2.639843071	0.008425929	0.041556294	-3.248240433	-3.263128728
PAQR5	-1.710593363	-0.797534891	-2.673262488	0.007636329	0.038613718	-3.161408393	-3.272954083
CRLF2	-1.71365268	0.080387924	-2.55957292	0.010628851	0.049265187	-3.452402017	-3.279901933
PLA2R1	-1.718428969	-2.748516723	-3.403298152	0.000692667	0.00636295	-0.997157327	-3.290778606
CTD-2154I11.2	-1.718703775	-1.516435109	-3.78294132	0.000164356	0.002032567	0.328988692	-3.291405495
GIPC3	-1.719090158	1.379646738	-3.865307248	0.000118239	0.001573685	0.634677468	-3.292287118
RNU4-9P	-1.726617631	-0.059997536	-5.840067652	7.09E-09	4.04E-07	9.842345591	-3.309510001
MIR221	-1.729385673	0.308771782	-4.304909779	1.84E-05	0.00034309	2.373802107	-3.315865924
LRRK1	-1.732402965	6.155554981	-4.869180657	1.31E-06	3.66E-05	4.869290354	-3.322808073
CTD-2267D19.3	-1.73426231	0.894424164	-5.341556707	1.15E-07	4.52E-06	7.182717424	-3.327093268
AFAP1L1	-1.736956347	-1.109073389	-2.890639353	0.003929258	0.023968766	-2.570369156	-3.333311968
ITGA9	-1.737263029	5.153094451	-2.917938155	0.003603855	0.022509303	-2.492935084	-3.334020625
ACVRL1	-1.737497565	-0.659660495	-2.704170414	0.006965885	0.036214917	-3.080143889	-3.334562674
ANXA1	-1.73889884	8.153442098	-3.810053315	0.000147571	0.001865806	0.428905451	-3.337803074
LRRC3	-1.743411592	0.819732836	-6.43619463	1.91E-10	1.73E-08	13.31169855	-3.348260072
AGR2	-1.745169688	-3.57042924	-2.682881836	0.00742171	0.037807078	-3.136215415	-3.352342814
ARC	-1.746660158	0.958537153	-2.728173883	0.006482262	0.034332043	-3.016398144	-3.355807959
LAMC3	-1.748086137	-0.721538679	-2.870798682	0.004182289	0.025199439	-2.62619904	-3.359126526
PRRG4	-1.749444174	3.692877611	-3.929556063	9.11E-05	0.0012843	0.877558341	-3.362290025
RP11-353N4.5	-1.751498142	-2.766520357	-2.791211275	0.005352916	0.03003712	-2.846349871	-3.367080333
AC132807.1	-1.755642202	-3.035301222	-3.284322887	0.001058395	0.008836482	-1.384614851	-3.376765985
RP11-17M16.1	-1.755662977	-0.127663531	-3.624567774	0.000304295	0.003313751	-0.240813409	-3.376814612
RP11-588K22.2	-1.76220865	1.302900075	-2.740370435	0.006248303	0.033505468	-2.983795352	-3.392170417
RET	-1.76299971	1.406544587	-3.171020561	0.001566117	0.011895872	-1.741060422	-3.394030924
AC063977.1	-1.763044455	-0.25257864	-3.012368888	0.002658592	0.01769444	-2.21956608	-3.394136191
RGMA	-1.766978988	-2.452226232	-2.749235851	0.006083051	0.032850802	-2.960007207	-3.403405349
CLEC12A	-1.767125188	5.293749709	-3.571003222	0.000372854	0.003891479	-0.428164972	-3.403750262
ZFYVE9	-1.769092269	1.660591532	-3.169334437	0.001575138	0.011946052	-1.746272406	-3.408394362
OAF	-1.770088021	3.437576293	-5.236124836	2.01E-07	7.40E-06	6.648815302	-3.410747655
SLC17A9	-1.771679968	6.096259599	-5.51052013	4.57E-08	2.04E-06	8.059236029	-3.414513334
EPHB3	-1.772423878	-0.210458338	-2.725136023	0.006541749	0.034591554	-3.024496416	-3.416274445
ALDH7A1	-1.772577942	0.708964513	-3.455034491	0.00057375	0.005460699	-0.824472356	-3.416639285
MYOZ3	-1.772835398	-0.423879425	-3.533786746	0.000428732	0.004340834	-0.556736611	-3.417249056
EPHB6	-1.773312528	4.47946819	-6.274056128	5.27E-10	4.25E-08	12.33727932	-3.418379399
DUSP14	-1.776825227	1.894929714	-5.721397989	1.40E-08	7.36E-07	9.189096527	-3.426712669
AP000350.4	-1.780468959	-0.375222775	-2.951992728	0.003232396	0.020692147	-2.395335646	-3.435378259
CMTM3	-1.781013182	5.920748917	-8.302513044	3.35E-16	1.07E-13	26.13025874	-3.43667442
CD302	-1.789497633	5.948212102	-5.183575882	2.64E-07	9.35E-06	6.386464785	-3.456944959
ANKRD63	-1.790286451	-1.582971086	-4.236474131	2.48E-05	0.00043926	2.091194807	-3.458835619
UBE2E2	-1.795259679	3.788678566	-5.503022218	4.76E-08	2.10E-06	8.019795656	-3.470779417
RP6-109B7.4	-1.796583507	-1.973731801	-3.759330371	0.000180423	0.002190203	0.242538815	-3.473965693
TMT2C	-1.796826574	2.988651742	-2.812663427	0.005011241	0.028658213	-2.787609289	-3.474551041
RARRES2	-1.796869961	-3.088421393	-3.145229248	0.001709456	0.012673286	-1.820487134	-3.474655533
RP11-269C23.3	-1.798497863	-1.298170073	-2.624562342	0.008810743	0.042897736	-3.287584897	-3.478578465
AP003774.4	-1.803142769	-0.362805663	-3.90340999	0.00010132	0.001393202	0.778249726	-3.489796157
SOWAHD	-1.803982464	1.14783375	-3.67578146	0.000249959	0.002837096	-0.059146454	-3.491827921
GPT2	-1.807953754	3.551257805	-4.217906602	2.69E-05	0.000472106	2.015272004	-3.501453077
CEBPA	-1.809210916	6.268081433	-4.528677953	6.66E-06	0.000145375	3.328231503	-3.504505566
AC008738.1	-1.810293788	6.17383216	-4.528015582	6.68E-06	0.000145661	3.325337857	-3.507136999
MS4A6A	-1.816980374	4.463250735	-2.967993615	0.003070227	0.019820747	-2.349093491	-3.523429565
MATK	-1.817964574	4.174657121	-6.530401451	1.05E-10	1.02E-08	13.88834002	-3.525834052
AC114730.3	-1.819184351	-1.394587102	-2.7170222	0.006703053	0.03521161	-3.046082544	-3.528816352
TPPP3	-1.820519868	1.560250108	-2.691817423	0.007227217	0.037211799	-3.11273333	-3.532084525
B4GALT6	-1.829127491	3.859414186	-4.421077344	1.09E-05	0.000222662	2.863490584	-3.553221167
EFCAB4A	-1.835231896	3.062321852	-4.401416866	1.19E-05	0.000239691	2.77973366	-3.56828759

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
RP11-54O7.2	-1.835943504	-3.232279012	-3.38183774	0.000748423	0.006761546	-1.068041289	-3.570048079
CCDC40	-1.837523049	-1.097814597	-4.098615222	4.50E-05	0.000722063	1.535162022	-3.573958914
CEBPA-AS1	-1.846600364	-0.29708961	-3.630985635	0.000296925	0.003247787	-0.218183665	-3.596516852
C10orf11	-1.847813485	3.788088174	-3.605543943	0.000327163	0.003516338	-0.307663595	-3.599542331
RP11-367B6.2	-1.853206292	0.895583549	-3.872235965	0.000114976	0.001540307	0.660683528	-3.613022633
FAM46A	-1.854493138	7.84555107	-4.947669304	8.83E-07	2.61E-05	5.239610095	-3.616246791
SPRY2	-1.856845059	3.856897111	-3.665033443	0.000260545	0.002934205	-0.09747775	-3.622146904
SIGLEC14	-1.862369244	2.710981459	-3.054537268	0.002314876	0.015954183	-2.094732531	-3.636042958
RP11-18F14.2	-1.864633069	4.003232742	-4.24056427	2.44E-05	0.000432633	2.10796261	-3.641752984
GAL3ST2	-1.868923166	-0.670515348	-3.339101303	0.000872097	0.007611902	-1.207895574	-3.652598468
LAMA3	-1.872023026	-0.127521589	-3.44316421	0.000599217	0.005656826	-0.864317593	-3.660455094
KIT	-1.873376917	5.978866447	-3.46503907	0.000553074	0.005304734	-0.790785869	-3.663891845
C9orf47	-1.875104608	0.90454655	-3.205716819	0.001390742	0.010906887	-1.633208074	-3.668282146
RP11-111H3.1	-1.877344182	-2.291217511	-3.649845642	0.000276223	0.003065406	-0.151456777	-3.673981043
PRAM1	-1.87895281	5.890377749	-5.507170133	4.66E-08	2.07E-06	8.041608206	-3.678079875
CACNA2D3	-1.881972965	0.322295084	-2.729316431	0.006460015	0.034250887	-3.013350058	-3.685787675
ARL5C	-1.884257976	-0.735225501	-3.682413586	0.00024363	0.002784925	-0.03543945	-3.691630032
NPM2	-1.885977331	0.397517485	-4.641635588	3.93E-06	9.38E-05	3.827627364	-3.696032213
ITM2C	-1.886796089	6.301944894	-5.17011221	2.83E-07	9.90E-06	6.31965018	-3.698130381
RTN4R	-1.887133563	0.496733921	-3.678694925	0.00024716	0.002812909	-0.048737182	-3.698995547
EMP1	-1.888112453	4.15393512	-3.445477188	0.000594173	0.005625316	-0.856564065	-3.70150622
C19orf77	-1.888673881	3.6677694	-3.642843592	0.000283745	0.003130875	-0.176269351	-3.702946949
LAIR1	-1.891522405	6.565640723	-6.258029433	5.81E-10	4.64E-08	12.24220544	-3.710265442
AC011484.1	-1.89715355	-2.955898387	-3.09286174	0.002038357	0.014482216	-1.97980201	-3.724775695
FAM108C1	-1.900946588	2.624507233	-3.563176973	0.000384005	0.003982345	-0.455311244	-3.734581513
DGKG	-1.903570652	4.981411163	-4.611259482	4.53E-06	0.000105592	3.692174286	-3.741380385
CYB561	-1.905068085	3.27431332	-6.116172438	1.38E-09	9.94E-08	11.41047072	-3.745265736
SORCS1	-1.905353611	-2.201526616	-2.676503728	0.007563399	0.038353914	-3.152929578	-3.746007039
RP11-251M1.1	-1.907349048	-1.452259637	-2.652057018	0.008129246	0.04046626	-3.216630357	-3.751191845
AC100791.1	-1.911996497	-1.786348043	-4.223747274	2.63E-05	0.000461469	2.039119919	-3.763295291
NCAM2	-1.913125931	-2.426062956	-3.039344327	0.002433718	0.016574921	-2.139905295	-3.766242596
CDYL2	-1.915397916	3.801745006	-4.531385276	6.58E-06	0.00014372	3.340062977	-3.772178422
PLAU	-1.915982275	4.072801744	-4.849366475	1.44E-06	4.01E-05	4.776695558	-3.773706639
MUC19	-1.921696797	0.375844608	-2.972435368	0.003026547	0.019593074	-2.336213413	-3.788683951
IGKV2-23	-1.925822709	-2.503153978	-2.743464362	0.006190178	0.033278399	-2.975502159	-3.799534582
CD33	-1.932203655	4.455584243	-5.380346441	9.30E-08	3.79E-06	7.381671809	-3.816376894
GUCY2D	-1.935990573	-1.301091063	-3.394814228	0.00071423	0.006512656	-1.025232145	-3.826407629
RP3-431A14.4	-1.93829925	-0.739153314	-4.55537096	5.89E-06	0.000131676	3.445180533	-3.832535753
RP11-398F12.1	-1.945032238	0.559367919	-2.881483596	0.00404424	0.024538027	-2.596179608	-3.850463812
RP11-618I10.1	-1.948284916	-3.110367328	-2.814620214	0.004981079	0.028560013	-2.782229167	-3.859154802
AREG	-1.94845585	-0.471667736	-3.374712489	0.000767839	0.006906018	-1.091479237	-3.859612071
MMP28	-1.958610177	-0.830957955	-3.118810111	0.001868732	0.013549503	-1.90118833	-3.88687356
RP11-462G12.1	-1.958761014	-2.508975446	-3.622089289	0.000307187	0.003336064	-0.249542262	-3.887279961
C2CD2	-1.958904311	4.468821386	-8.255656703	4.84E-16	1.50E-13	25.7734005	-3.887666087
NTN1	-1.961976706	1.645235123	-3.141118521	0.001733388	0.012779354	-1.833087781	-3.89595417
ZNF618	-1.966986855	5.369688936	-7.348933768	4.20E-13	7.04E-11	19.21804366	-3.909507445
CTD-2349B8.1	-1.970511978	0.774052107	-4.282006485	2.03E-05	0.000374715	2.27873673	-3.919071727
SLC2A5	-1.974459556	4.859013241	-4.540182647	6.32E-06	0.000139448	3.378555814	-3.929809982
PRHOXNB	-1.977884654	-2.117437619	-4.265158418	2.19E-05	0.000396533	2.209116654	-3.939150816
CMTM4	-1.981165415	4.01932398	-4.868859987	1.31E-06	3.66E-05	4.867788949	-3.948118836
C8orf56	-1.984153282	-3.069057027	-3.435440278	0.00061635	0.005779961	-0.890172825	-3.956303988
CCDC73	-1.984406823	-1.049184215	-4.567281753	5.57E-06	0.000126208	3.497577268	-3.956999336
MTMR9LP	-1.988690908	-0.751279211	-4.533442326	6.52E-06	0.00014267	3.349057174	-3.968767113
HDC	-1.98951703	3.22264099	-2.758979902	0.005905979	0.032245342	-2.93377421	-3.971040376
U1	-2.002786671	3.23418879	-3.04447306	0.002392989	0.016361463	-2.124680876	-4.007733758
DACH1	-2.002828561	4.218194639	-2.782532036	0.00549704	0.030581545	-2.869989743	-4.00785013
CSF1R	-2.012774174	5.073447342	-3.553838951	0.000397719	0.004096654	-0.487625365	-4.035574794
GPR162	-2.016475696	1.382952052	-3.773719105	0.000170464	0.002095013	0.295159633	-4.045942162
U47924.11	-2.019036016	-0.590722209	-3.989411084	7.12E-05	0.00105053	1.107317706	-4.053128783
PTPRN2	-2.020321826	1.311791842	-3.983379959	7.30E-05	0.001067787	1.084014341	-4.056742769

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
TRIO	-2.02047846	7.712642106	-5.647058993	2.14E-08	1.06E-06	8.786262252	-4.057183233
STAR	-2.020579732	3.095565375	-4.538700898	6.36E-06	0.000140161	3.372067422	-4.057468044
VSIG4	-2.022154669	0.10528992	-2.595745979	0.009579445	0.045498914	-3.361167822	-4.06189985
C19orf81	-2.025889533	-1.590519502	-3.852854967	0.000124324	0.001637815	0.588052928	-4.072428961
TBC1D16	-2.040410059	2.964350616	-4.769085485	2.13E-06	5.58E-05	4.405212754	-4.11362436
RAB44	-2.044196505	3.262841309	-4.772784503	2.09E-06	5.51E-05	4.422199198	-4.124435014
ERICH1-AS1	-2.05152646	-3.292082281	-3.32382548	0.000920728	0.007910741	-1.257463821	-4.14544351
PROM1	-2.056199396	4.526473418	-2.59448942	0.009614288	0.045639988	-3.364358231	-4.158892505
SLCO5A1	-2.058418552	1.567974862	-2.624481439	0.008812821	0.042897736	-3.287792605	-4.165294644
RP11-549B18.1	-2.063403534	0.112226226	-4.330903513	1.64E-05	0.000310042	2.482286252	-4.179711988
RUNX2	-2.065857435	6.546367061	-5.774086794	1.04E-08	5.64E-07	9.477591559	-4.186827371
KITLG	-2.067131088	-1.942051289	-3.686267557	0.000240022	0.002753222	-0.021644067	-4.190525256
CLEC4G	-2.068790234	-1.4933844	-3.316546603	0.000944775	0.008077407	-1.281004775	-4.195347268
ARHGEF17	-2.070544818	5.104810509	-5.822622744	7.84E-09	4.43E-07	9.745531252	-4.200452689
HAGHL	-2.093087419	2.55117659	-6.365418301	2.98E-10	2.56E-08	12.88353569	-4.266601647
DOC2A	-2.096113612	0.097214833	-3.868000455	0.00011696	0.001561604	0.644780714	-4.275560652
PLAGL1	-2.099024057	5.585075016	-7.843646063	1.14E-14	2.78E-12	22.71149533	-4.284194732
RNASE2	-2.101250809	5.183696741	-3.279316223	0.001077145	0.008959	-1.400624175	-4.290812349
PLCB1	-2.104088616	4.430512682	-4.084960111	4.77E-05	0.000758343	1.481052714	-4.299260761
CTD-2501B8.1	-2.106476709	-0.168657663	-4.059711607	5.30E-05	0.000829662	1.381463342	-4.306383221
SLC9A3R2	-2.106640729	1.599821685	-4.048012004	5.57E-05	0.000861973	1.335518137	-4.306872842
ITPRIPL2	-2.114935636	4.282694722	-4.433437054	1.03E-05	0.000212806	2.916328534	-4.331706923
AC114730.2	-2.13314716	0.974636834	-4.182542085	3.14E-05	0.000537074	1.871555473	-4.386733795
OLFML2A	-2.134996851	1.062411016	-3.163234513	0.001608176	0.012099228	-1.765105224	-4.392361668
RP11-271K11.5	-2.135220418	-0.942150912	-4.834334174	1.55E-06	4.28E-05	4.706687164	-4.393042384
CARD10	-2.145041923	-1.491630466	-3.875828575	0.000113318	0.001522216	0.674185709	-4.423051141
DEPDC7	-2.151575835	1.318059754	-4.84483029	1.47E-06	4.09E-05	4.755547835	-4.443128404
KRT17P1	-2.152630666	-2.842611949	-3.885802645	0.000108832	0.001475985	0.711735081	-4.446378199
PPARGC1B	-2.167565935	4.597064317	-6.855352806	1.26E-11	1.58E-09	15.93601162	-4.492647701
BACE1	-2.1711139	3.85437313	-5.146627592	3.20E-07	1.10E-05	6.203499363	-4.503709896
PLCB1-IT1	-2.186206599	-0.194655355	-3.984480368	7.26E-05	0.001065294	1.08826361	-4.551072595
AP000892.1	-2.190740477	1.987585747	-5.207622279	2.33E-07	8.41E-06	6.506205908	-4.565397496
ADCY9	-2.191809934	4.500745999	-3.356341192	0.000820084	0.00725391	-1.15168741	-4.568783038
SPNS3	-2.196115026	4.326536878	-4.262681927	2.21E-05	0.00039981	2.198905504	-4.582436935
SERPINE1	-2.208773596	1.811884145	-4.166219144	3.37E-05	0.00056793	1.805614918	-4.622821305
S100Z	-2.216122265	1.697758008	-3.333066612	0.000891016	0.007725914	-1.227503979	-4.646428685
PRTN3	-2.216954741	5.026445286	-2.821402156	0.00487781	0.028098176	-2.763553957	-4.649110579
CERCAM	-2.228057684	3.471553493	-7.005612798	4.56E-12	6.40E-10	16.91337268	-4.685028046
ADAMTS7	-2.237927881	0.43902757	-3.741592362	0.000193455	0.002307347	0.177938112	-4.717190554
NEU4	-2.260899847	2.575928092	-3.402520413	0.000694618	0.006377913	-0.999733851	-4.792903346
IGFBP6	-2.262679651	-1.730434522	-5.220503369	2.18E-07	7.93E-06	6.570563908	-4.798819838
IGKV1-22	-2.272572661	-2.461820738	-3.203905051	0.001399432	0.010953541	-1.638868341	-4.831839928
SV2B	-2.274904878	-1.205765729	-3.459587704	0.000564252	0.00539365	-0.809152981	-4.839657252
TBX1	-2.283358979	0.028272991	-4.170399632	3.31E-05	0.000561129	1.822479342	-4.86810059
SUCNR1	-2.289191676	2.738817283	-3.65977635	0.000265874	0.002978968	-0.116186679	-4.887821759
NRXN2	-2.297963259	3.290128216	-4.835399113	1.54E-06	4.27E-05	4.711639982	-4.91763023
GUCY1A3	-2.310512204	4.025164388	-3.660150769	0.000265491	0.002976363	-0.114855059	-4.960591661
RP11-84C10.2	-2.332459596	0.675666965	-3.423585035	0.000643537	0.005983867	-0.929747048	-5.036632946
PRSS57	-2.334598413	6.228445106	-5.076578997	4.60E-07	1.48E-05	5.860026384	-5.044105367
ELANE	-2.335904764	6.522460263	-2.956862055	0.003182237	0.02045709	-2.3812894	-5.048674842
TRBV27	-2.336596475	0.715350159	-3.562171215	0.000385461	0.003993253	-0.458795627	-5.051096046
SH3RF1	-2.337688003	4.335060553	-7.422318389	2.49E-13	4.56E-11	19.72347082	-5.054919099
MS4A2	-2.338736654	-0.911549053	-3.357098165	0.000817867	0.007240779	-1.149212927	-5.058594701
ATP8B4	-2.339272626	7.959507215	-5.473202952	5.61E-08	2.43E-06	7.863440234	-5.060474358
ZNF114	-2.340681745	-1.009520426	-5.595914167	2.85E-08	1.36E-06	8.511978479	-5.065419474
SLC35G2	-2.342334092	0.510779414	-3.59324187	0.000342799	0.003635024	-0.350711032	-5.07122432
HAAO	-2.346452134	2.301419617	-6.855995766	1.25E-11	1.58E-09	15.94015283	-5.085720351
SCUBE1	-2.3470415	2.586117571	-3.311619141	0.000961383	0.008195984	-1.296912274	-5.087798377
AC068057.2	-2.349903095	-2.804425846	-3.584549676	0.000354265	0.003732611	-0.381040406	-5.097900074
RP11-738E22.2	-2.352714153	4.766233612	-5.968766137	3.34E-09	2.12E-07	10.56491354	-5.107842901

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
IGFBP7	-2.354316809	5.517542672	-6.069542896	1.83E-09	1.27E-07	11.1409254	-5.113520235
BAIAP2-AS1	-2.356210858	3.618769329	-6.4303773	1.98E-10	1.78E-08	13.27634251	-5.120237953
SYNGR1	-2.3586168	5.210859687	-6.356863509	3.15E-10	2.65E-08	12.83207807	-5.128783953
AZU1	-2.359870362	7.854276478	-3.712895091	0.00021643	0.002528039	0.074053097	-5.133242304
FLT4	-2.369710087	0.855911434	-3.220287262	0.001322654	0.01050215	-1.587573692	-5.168372621
PALM	-2.37947951	1.747020093	-3.448984223	0.000586602	0.005561613	-0.844798142	-5.20348979
ACE	-2.38965922	1.20474646	-4.716700309	2.74E-06	6.92E-05	4.166001738	-5.240335646
CD276	-2.393675319	0.083109193	-3.557084607	0.000392902	0.004054031	-0.476403175	-5.254943742
C20orf166-AS1	-2.393985142	-2.131741272	-2.859917904	0.004327256	0.025821295	-2.656656082	-5.256072378
RP11-66B24.4	-2.405117067	0.01945634	-5.008711484	6.49E-07	1.98E-05	5.5315055	-5.296785431
SAMD11	-2.416060167	-1.173988725	-3.557365552	0.000392487	0.00405331	-0.47543131	-5.337115258
AC025627.9	-2.42367687	-2.441554875	-3.907026429	9.98E-05	0.001379549	0.791947492	-5.365367048
GPR124	-2.431709948	4.111433824	-4.003555833	6.71E-05	0.001005008	1.162104711	-5.395325303
ARHGEF40	-2.432400531	5.991521897	-7.223282914	1.02E-12	1.65E-10	18.36307828	-5.397908532
RFX8	-2.439073405	2.710208146	-3.188782769	0.001473937	0.011383602	-1.685990666	-5.422933222
C9orf139	-2.451986807	2.147576667	-4.815155147	1.70E-06	4.61E-05	4.617667341	-5.471691179
MN1	-2.455256905	3.916358433	-3.877704272	0.000112461	0.001515853	0.681240001	-5.484107704
AE000661.37	-2.460240484	1.267299237	-3.73634126	0.000197479	0.002348272	0.158870872	-5.503084511
CLC	-2.467835742	4.420145222	-3.369539572	0.000782228	0.006999872	-1.108464889	-5.53213262
CP	-2.472965751	-1.316831656	-4.002511477	6.74E-05	0.001007885	1.158053182	-5.551839077
ATL1	-2.474629973	1.382603144	-7.367104291	3.69E-13	6.30E-11	19.34277294	-5.5582471
EVPL	-2.492569084	2.27054809	-3.829843532	0.000136354	0.001756538	0.502276171	-5.627792294
EPX	-2.495802427	4.662550937	-2.803367628	0.005156797	0.029295878	-2.813117501	-5.640419351
SPINK2	-2.497172317	1.281993142	-2.766561993	0.005771428	0.031713201	-2.913298449	-5.645777669
IGFBP2	-2.519056541	2.272565446	-3.875606339	0.00011342	0.001522551	0.67335012	-5.732071244
CACNB4	-2.527850742	2.259091613	-4.597512974	4.83E-06	0.000112116	3.631155591	-5.767118801
C1QTNF4	-2.573254807	3.864787582	-4.327352603	1.66E-05	0.000314384	2.467429572	-5.951506103
DNM1	-2.634504617	4.202340014	-6.209428164	7.84E-10	6.08E-08	11.95526368	-6.209618418
ADAMTS2	-2.636034863	0.488353912	-3.226887335	0.001292837	0.010302605	-1.566835717	-6.216208363
SLC45A3	-2.653560471	4.654769387	-6.085731494	1.66E-09	1.17E-07	11.23428824	-6.292182304
USP43	-2.655488056	1.980874629	-7.317249446	5.25E-13	8.66E-11	19.00120954	-6.300594911
BAALC	-2.659742338	3.119547041	-3.466619363	0.000549872	0.005286838	-0.785456162	-6.319201797
SIGLEC12	-2.668933759	0.833219738	-4.219971821	2.67E-05	0.000468293	2.023700817	-6.359590004
RP11-1134I14.2	-2.671954382	-1.462162583	-2.785001491	0.005455681	0.030429275	-2.863270998	-6.372919254
KIF26B	-2.699289074	3.046426572	-3.825347784	0.000138829	0.001776855	0.485576154	-6.494817888
CPXM1	-2.717099074	5.391363214	-5.35478103	1.07E-07	4.27E-06	7.250393208	-6.575493041
HOMER3	-2.721977072	4.875745166	-5.733579302	1.31E-08	6.94E-07	9.255575202	-6.597763535
MGST1	-2.736366365	3.683738983	-4.052512563	5.47E-05	0.000847221	1.353176996	-6.663898214
MPO	-2.739438152	9.959830987	-3.306578569	0.000978652	0.008310905	-1.313161005	-6.678102106
TTLL6	-2.742782884	-1.047185848	-4.290394535	1.96E-05	0.000363457	2.313496606	-6.693602521
CDK15	-2.750387767	-1.15225635	-3.99633055	6.91E-05	0.001028675	1.134095505	-6.728979691
AC141928.1	-2.764356403	-2.902795126	-3.253909487	0.001177125	0.009581147	-1.481496606	-6.794448262
RP11-5407.1	-2.813394933	-0.37308929	-4.099275433	4.49E-05	0.000720682	1.537782573	-7.029367749
SRSF12	-2.873836882	-0.430106366	-5.512250436	4.53E-08	2.03E-06	8.068344914	-7.33012033
VWA1	-2.907930225	-0.937886814	-5.268618978	1.69E-07	6.37E-06	6.812293124	-7.505406571
GGT5	-2.939400436	1.645122926	-4.478793747	8.39E-06	0.000178076	3.111442181	-7.670924363
PGBD4P1	-2.988912657	-1.854704388	-3.887369787	0.000108143	0.001470667	0.717643403	-7.938754357
ACY3	-3.005827981	1.181984233	-4.818893554	1.67E-06	4.56E-05	4.634992767	-8.032382553
KIRREL	-3.012090429	-0.051898972	-3.799188154	0.000154094	0.001934675	0.388780547	-8.067325286
TRH	-3.053507208	1.484753694	-2.847782715	0.004494306	0.026569714	-2.690490281	-8.30227781
MARC2	-3.078533704	-0.660426058	-4.33553765	1.60E-05	0.00030575	2.501692681	-8.447554211
PTPN14	-3.122812445	1.919399307	-4.207700974	2.82E-05	0.000490928	1.973677983	-8.71084361
Alf1	-3.151055553	1.042583899	-3.974354136	7.57E-05	0.001100288	1.049203646	-8.883052716
hsa-mir-3187	-3.158888672	4.223189509	-4.956474206	8.45E-07	2.51E-05	5.281504039	-8.93141446
SPNS2	-3.171695711	3.885238536	-5.926249079	4.29E-09	2.63E-07	10.32458442	-9.011053041
CFD	-3.196990289	6.085378581	-5.071528167	4.72E-07	1.51E-05	5.835432805	-9.17043576
ZBTB46	-3.198832461	3.487575623	-6.659806661	4.56E-11	4.92E-09	14.69292209	-9.18215293
RP11-704M14.1	-3.220879186	0.109965822	-3.374074073	0.000769602	0.006918724	-1.0935769	-9.32354878
RP11-616M22.5	-3.253995895	-2.517192608	-4.078062233	4.91E-05	0.000778924	1.453785719	-9.540043832
MDFI	-3.254357982	-0.770010244	-4.334513945	1.61E-05	0.000306853	2.497403982	-9.542438489

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
ST18	-3.264806077	0.444864824	-3.765325893	0.000176209	0.002148267	0.264441223	-9.611796319
ADRA2C	-3.319698864	-1.978996456	-3.983074581	7.31E-05	0.001068349	1.082835313	-9.984560081
CCNA1	-3.356377019	2.612088233	-4.920286647	1.01E-06	2.95E-05	5.109775346	-10.24165541
DUSP27	-3.414761783	-1.338330919	-3.94760841	8.46E-05	0.001206392	0.946499889	-10.66462833
HPGDS	-3.480021953	0.405327855	-3.886041602	0.000108727	0.001475567	0.712635831	-11.15811912
U66061.31	-3.564234258	3.090823571	-4.76605053	2.16E-06	5.65E-05	4.391285167	-11.82882
RP11-38J22.6	-3.657935058	1.966224038	-5.159489125	3.00E-07	1.04E-05	6.267048274	-12.62258124
PRODH	-3.659091817	-0.254704495	-4.373603257	1.35E-05	0.000264757	2.661855673	-12.63270614
AC004791.2	-3.717230591	-0.749925099	-3.570982167	0.000372883	0.003891479	-0.428238082	-13.15218499
FLT3	-3.808669731	6.586058684	-6.881812193	1.05E-11	1.37E-09	16.1067234	-14.0127648
MAMDC2	-3.823215122	1.40870478	-4.120445149	4.10E-05	0.00066719	1.622026815	-14.15475744
C1orf186	-3.901546256	3.08950578	-5.845450451	6.87E-09	3.95E-07	9.8722731	-14.94453658
TPSAB1	-4.342538335	0.638791373	-5.062525473	4.94E-07	1.57E-05	5.791654305	-20.28776922
TRIM71	-4.368037624	1.516805278	-5.429310185	7.13E-08	3.01E-06	7.63474438	-20.64953836
TRBVB	-4.378999487	-0.045268815	-5.052882597	5.19E-07	1.64E-05	5.744844538	-20.80703494
CD34	-4.521231526	4.531661296	-4.639101978	3.97E-06	9.47E-05	3.816296975	-22.96287738
TPSB2	-4.529018848	-0.138761009	-5.627912449	2.38E-08	1.15E-06	8.683307854	-23.08716061
TPSD1	-5.10131351	0.198840358	-5.709721008	1.50E-08	7.80E-07	9.125494244	-34.32799071

Supplemental table 4. Differentially expressed genes in NUP98-NSD1+ AML

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
RP1-163G9.1	7.754250123	-2.560894071	15.00008931	3.37E-46	3.32E-42	93.80848693	215.9045928
PRDM16	7.677774202	-0.720882746	13.95854083	1.01E-40	3.99E-37	81.42329256	204.7577435
NKX2-3	7.40216856	-1.988854517	11.38951771	2.08E-28	1.96E-25	53.60520533	169.1510778
HOXB6	6.869388691	-1.328542106	10.6775376	2.50E-25	1.54E-22	46.65896907	116.9208726
hsa-mir-10a	6.834372958	-1.661263008	11.00640832	9.88E-27	7.50E-24	49.82358024	114.1172407
HOXB5	6.385958939	-2.085419773	10.45425456	2.15E-24	1.18E-21	44.55421244	83.63059601
HOXB-AS3	5.805032644	-2.262754799	11.39445631	1.98E-28	1.95E-25	53.65461167	55.9099304
RP11-129J12.2	5.74234862	-3.021215542	12.17457155	5.61E-32	7.38E-29	61.66398854	53.53270394
HOXB3	5.558469643	1.767106859	9.669954788	3.06E-21	1.10E-18	37.44954746	47.12659831
AL008733.1	5.218255884	-4.492107405	17.05115756	1.09E-57	2.15E-53	119.7971551	37.22644342
HOXB4	5.213704038	0.981262866	9.450036578	2.16E-20	6.97E-18	35.53992799	37.1091754
VENTX	4.87979361	0.128154947	11.57600881	3.07E-29	3.25E-26	55.48236881	29.44179261
AC103702.1	4.699954647	-4.096227341	12.48398703	1.97E-33	3.88E-30	64.95083572	25.9912596
CTD-3179P9.1	4.580232409	-3.455631471	12.40758697	4.53E-33	8.12E-30	64.13357621	23.92144127
PRODH	4.494223669	-0.055770523	9.145551327	3.03E-19	6.88E-17	32.95711333	22.5370014
SPINK2	4.294270196	1.486795779	8.181222757	8.12E-16	8.01E-14	25.25786857	19.620232
CPNE8	4.209403207	1.971057743	8.241916704	5.05E-16	5.27E-14	25.72046441	18.49935682
CCNA1	4.189568056	2.792698757	10.47160091	1.82E-24	1.02E-21	44.71644262	18.24675555
UPP2	4.072675714	-4.19814365	14.8844865	1.41E-45	6.93E-42	92.40513573	16.82664578
UTF1	4.061033867	-2.90185417	13.86373245	3.09E-40	1.02E-36	80.32562511	16.69140932
RP11-1D12.2	4.028971478	-0.223415076	9.04348481	7.24E-19	1.49E-16	32.10739136	16.32455181
NRG4	3.994559774	1.442277693	8.979838612	1.24E-18	2.30E-16	31.58164194	15.93977957
AC016735.1	3.863823687	-2.05012398	8.28642295	3.56E-16	3.84E-14	26.06158437	14.55884182
CYP7B1	3.759065476	-0.598102485	7.992026397	3.50E-15	2.99E-13	23.83516263	13.539152
RP11-326L17.1	3.712606554	-2.764038515	10.12074136	4.98E-23	2.52E-20	41.47757076	13.1100979
STAB1	3.634266152	6.56923983	9.65407739	3.52E-21	1.22E-18	37.31045012	12.41718421
HOXA9	3.560610663	2.830721609	5.120290621	3.63E-07	2.46E-06	5.993700333	11.79914701
TTC40	3.544564831	-3.790193121	12.55558551	8.98E-34	1.97E-30	65.72008257	11.66864254
IGSF10	3.508679616	3.432992101	7.144168859	1.70E-12	5.95E-11	17.82458713	11.38197978
TGM3	3.507681233	-2.165167204	8.752782738	8.26E-18	1.24E-15	29.73198337	11.37410587
PTX4	3.489580755	-0.46443231	7.672140868	3.87E-14	2.42E-12	21.49679552	11.23229444
RP6-170F5.2	3.457126018	-3.282777048	9.438666028	2.38E-20	7.58E-18	35.44219539	10.98243471
AE000661.37	3.440154565	1.420331269	8.938679673	1.75E-18	3.06E-16	31.24333819	10.85399741
HOXA10	3.420778695	2.511066174	5.323728137	1.24E-07	9.63E-07	7.017239801	10.70919917
C3orf80	3.412225732	-0.335110982	6.794955154	1.82E-11	4.66E-10	15.5260448	10.64589791
RP1-170O19.20	3.384666397	1.083766889	5.272067503	1.64E-07	1.23E-06	6.753743203	10.44446288
RP11-1055B8.6	3.377382686	1.944323898	7.176163577	1.36E-12	4.92E-11	18.04040343	10.39186498
HOXB7	3.340482147	-3.186689253	7.673775574	3.83E-14	2.40E-12	21.50852928	10.12943743
HTR1F	3.339276396	-0.005165038	6.47249172	1.48E-10	2.80E-09	13.49723802	10.12097516
ANGPT1	3.312997032	3.42770201	7.409833347	2.61E-13	1.23E-11	19.64296628	9.938285811
CTC-529P8.1	3.277763247	-3.151593072	11.12332948	3.08E-27	2.53E-24	50.96694554	9.698510851
HOXB2	3.268813392	1.261872852	7.262270062	7.44E-13	3.02E-11	18.62555294	9.638531728
TRGP2	3.264829845	-0.835944882	10.85389459	4.46E-26	3.04E-23	48.34651036	9.611954671
CNTNAP3	3.238708629	-0.899391716	7.543256752	9.96E-14	5.44E-12	20.57870779	9.439488125
RP11-25I15.3	3.170494206	-4.026421332	9.330251222	6.15E-20	1.69E-17	34.51531998	9.003551585
HOXB-AS1	3.123064978	-0.899089356	8.698882298	1.29E-17	1.87E-15	29.29888123	8.712368512
H2AFY2	3.118251723	-0.03359601	7.738327061	2.37E-14	1.59E-12	21.97365364	8.683349923
KLHL33	3.11530492	-1.594400138	10.08514885	6.93E-23	3.38E-20	41.15404065	8.665631688
TRBVB	3.106022484	0.074555177	6.080069513	1.68E-09	2.28E-08	11.15125015	8.610055182
CPA6	3.077291608	-2.153199643	8.032202953	2.57E-15	2.25E-13	24.13482667	8.440284374
S100Z	3.048215108	1.827791848	7.874461977	8.55E-15	6.49E-13	22.96592091	8.271879146
AL122127.25	3.046929624	-0.134196527	7.266654447	7.21E-13	2.95E-11	18.6555163	8.264511938
KIAA1211L	3.036859425	-1.12975083	9.107629922	4.20E-19	9.40E-17	32.64046356	8.207025436
CTD-2049J23.2	3.03032845	-1.852992935	6.531518143	1.02E-10	2.03E-09	13.86183006	8.1699568
CDCP1	3.023212964	0.692008161	8.70275484	1.25E-17	1.82E-15	29.32992105	8.129761133
DYTN	2.997699657	-1.127611113	7.853909434	9.99E-15	7.43E-13	22.81513223	7.987254355
SH3TC2	2.952055256	1.870226667	10.02076985	1.26E-22	5.76E-20	40.57122198	7.738507019
RP11-431I8.1	2.944196205	-2.403657648	7.208748082	1.08E-12	4.09E-11	18.26109453	7.69646628
C20orf166-AS1	2.933320287	-1.98516542	5.953216151	3.59E-09	4.43E-08	10.42206349	7.638663756

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
CALCRL	2.923588663	0.471169331	8.314139886	2.86E-16	3.19E-14	26.27483399	7.587310941
ABO	2.914421792	-0.154525918	6.119652331	1.33E-09	1.86E-08	11.38171233	7.539254076
SPNS3	2.902388584	4.455896081	9.60797498	5.32E-21	1.78E-18	36.90764086	7.476632307
TRGC2	2.8927261	3.498389765	10.51333764	1.22E-24	7.07E-22	45.10767074	7.426724697
WT1-AS	2.826041281	0.910530499	5.513723177	4.43E-08	3.95E-07	8.007196665	7.091256498
TRGJP1	2.796344666	0.198676158	9.639764588	4.01E-21	1.36E-18	37.1852231	6.94678124
IGKV2-23	2.779489906	-2.400967863	6.727500155	2.84E-11	6.80E-10	15.09416664	6.866095417
TMMC2	2.774197383	3.122639948	7.426014287	2.32E-13	1.11E-11	19.75564982	6.840953306
SCHIP1	2.772026223	0.560356854	5.829888413	7.39E-09	8.34E-08	9.726909847	6.830665871
IGKV1-22	2.757794696	-2.356120475	6.588051767	7.06E-11	1.47E-09	14.21387976	6.763615728
PROK2	2.728032978	3.407783054	6.195816782	8.34E-10	1.25E-08	11.82907221	6.625516741
U66061.31	2.711335941	3.199831441	6.165104386	1.01E-09	1.47E-08	11.64806135	6.549278318
PRICKLE1	2.6877224508	1.553072272	9.915855156	3.30E-22	1.38E-19	39.62801858	6.440731312
RP11-556E13.1	2.66543692	-1.175174402	7.419024745	2.44E-13	1.16E-11	19.70694778	6.34419414
RP11-33A14.1	2.653430566	-3.458500918	8.461527768	8.84E-17	1.13E-14	27.41924473	6.291615763
RP11-164H5.1	2.639420545	-2.866694762	9.326929723	6.33E-20	1.71E-17	34.48706587	6.230813544
RP11-497G19.1	2.638457919	3.50315883	4.693372313	3.05E-06	1.56E-05	3.969367547	6.226657471
KY	2.638387897	-2.657312967	8.071518012	1.90E-15	1.71E-13	24.42934764	6.226355268
KIAA0125	2.62766694	3.344670704	7.099693146	2.31E-12	7.80E-11	17.526033	6.180257462
C9orf139	2.623657051	2.258193189	8.79451872	5.84E-18	9.08E-16	30.06892387	6.163103637
SPOCK3	2.609844924	-3.946146299	7.795680527	1.55E-14	1.09E-12	22.38982085	6.104380638
COL4A5	2.603335902	-0.468543965	3.820299314	0.000141168	0.00044836	0.357956521	6.076901476
RP11-1D12.1	2.592874748	-3.22465069	7.739829476	2.35E-14	1.58E-12	21.98452057	6.032996512
SUCNR1	2.561761307	2.840409173	7.007245963	4.36E-12	1.38E-10	16.91087187	5.904280684
CD34	2.547911058	4.643355449	4.470188325	8.67E-06	3.89E-05	2.97826206	5.84786926
RP11-511P7.2	2.488893692	0.005358878	8.63723587	2.13E-17	3.03E-15	28.80636987	5.613473249
NPR3	2.478800808	4.546304921	5.776048088	1.01E-08	1.09E-07	9.427702328	5.574339257
WT1	2.473358028	1.768047873	5.032378842	5.70E-07	3.66E-06	5.563120526	5.553348857
AC010731.6	2.470538423	-2.727069256	6.961789517	5.94E-12	1.80E-10	16.61108342	5.542505984
AC068057.2	2.467798432	-2.709563113	6.406035381	2.26E-10	4.09E-09	13.09040588	5.531989553
RP11-357H14.19	2.444640849	-3.512652807	6.367112516	2.88E-10	5.05E-09	12.85392831	5.443901067
FAM92A1	2.442632626	-1.01961171	5.684007689	1.71E-08	1.73E-07	8.922234869	5.436328461
CDH9	2.435462915	-3.587320637	5.443423363	6.52E-08	5.51E-07	7.637083878	5.409378752
TSPAN2	2.431587384	2.220600671	6.936642506	7.04E-12	2.09E-10	16.44599995	5.394866966
IGKV1D-22	2.429908025	-2.815782879	6.320665734	3.85E-10	6.51E-09	12.57348246	5.388590761
ILDR2	2.420859196	0.993723574	7.700674999	3.14E-14	2.03E-12	21.70193066	5.354898376
MAP7	2.401104975	2.994296737	8.335192183	2.42E-16	2.76E-14	26.4372228	5.282075692
GPR114	2.397529321	3.911526553	8.483602419	7.40E-17	9.61E-15	27.59215333	5.269000517
SLC52A3	2.394428647	-1.685207544	5.025803164	5.90E-07	3.76E-06	5.531198995	5.257688417
RP11-312P21.1	2.387972217	-1.877527254	6.018825839	2.43E-09	3.14E-08	10.79741635	5.234211485
MEIS1	2.37789084	4.341413805	3.900413233	0.000102178	0.000337673	0.659456689	5.197762952
BAHCC1	2.376996424	7.122841926	8.983344257	1.20E-18	2.28E-16	31.61051781	5.194541535
RP11-84C10.2	2.361935029	0.769487427	5.910193387	4.62E-09	5.52E-08	10.17801525	5.140593841
TRGC1	2.360207743	4.263590785	8.861536817	3.35E-18	5.46E-16	30.61285233	5.134442877
GLI2	2.36014568	-4.14046867	6.722242247	2.94E-11	6.98E-10	15.06066877	5.134222006
CTSG	2.35880209	5.548927201	5.671140842	1.84E-08	1.84E-07	8.852179965	5.129442703
TP73	2.357830308	-0.204458196	6.991983255	4.83E-12	1.52E-10	16.81001539	5.125988735
MAMDC2	2.357827484	1.513943399	4.332371388	1.62E-05	6.72E-05	2.389448015	5.125978702
RP11-346D6.6	2.350900029	-3.098045536	7.292781278	6.00E-13	2.50E-11	18.8344081	5.101424054
TRBV27	2.349543632	0.810598481	6.114816918	1.36E-09	1.90E-08	11.35348463	5.096630038
HOXA-AS4	2.330742397	-0.711721867	4.366526783	1.39E-05	5.87E-05	2.533719264	5.030641553
MMP7	2.327601726	-2.898227985	7.235130853	9.00E-13	3.53E-11	18.44044395	5.019702022
RP11-38J22.6	2.32161775	2.054927971	5.577321702	3.11E-08	2.90E-07	8.345884447	4.998924542
AIF1L	2.31839718	1.131092818	4.974059073	7.66E-07	4.70E-06	5.281395423	4.987777745
OCLN	2.311055377	0.397019296	5.560780764	3.41E-08	3.15E-07	8.25744529	4.96245967
ARHGAP22	2.301842581	1.619736695	7.223040609	9.80E-13	3.79E-11	18.3581813	4.930871242
PIEZ02	2.300229074	0.426284526	4.344692237	1.53E-05	6.39E-05	2.441364951	4.925359648
AL359195.1	2.292725705	-2.432317003	6.280841985	4.94E-10	8.00E-09	12.33453956	4.899809654
CTA-109P11.4	2.287448896	-3.364458451	6.51072388	1.16E-10	2.27E-09	13.73304111	4.881920819
TRGJP	2.277467631	-2.825663188	9.085642837	5.06E-19	1.11E-16	32.4573805	4.848261887
CEACAM6	2.269422537	2.941043365	4.849814056	1.42E-06	8.09E-06	4.691651156	4.821301118

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
PLCB1	2.261101016	4.528818761	7.525088674	1.14E-13	6.12E-12	20.45040892	4.793571715
OSCAR	2.252963876	3.464383542	6.688322554	3.68E-11	8.40E-10	14.84514486	4.766610946
CCDC73	2.245091967	-0.958903794	8.766880697	7.35E-18	1.13E-15	29.84564388	4.740673275
MANEAL	2.239349577	0.437063348	7.142569693	1.72E-12	6.01E-11	17.81382307	4.721841376
AC026703.1	2.233637744	3.052944868	5.106706778	3.90E-07	2.61E-06	5.926705387	4.7031839
LAMA3	2.230327458	-0.042044037	6.889299546	9.68E-12	2.77E-10	16.13668276	4.692404743
RP11-1055B8.4	2.230160776	1.089822796	5.484786365	5.19E-08	4.53E-07	7.854308354	4.691862637
MYOF	2.229280276	3.336453312	5.64570145	2.12E-08	2.08E-07	8.714111545	4.688999991
CP	2.220907399	-1.215465067	6.074050885	1.75E-09	2.35E-08	11.1163299	4.661865554
LDLRAD2	2.206326955	2.785640567	6.537117642	9.80E-11	1.97E-09	13.89657506	4.614988188
IGKV2-24	2.202488903	0.043859174	6.100836166	1.49E-09	2.05E-08	11.27198591	4.602727091
RP11-867G2.8	2.189338315	0.188791664	7.145802853	1.68E-12	5.89E-11	17.83558788	4.560962519
VWA1	2.178179996	-0.840730402	6.669789319	4.15E-11	9.35E-10	14.72780789	4.525822473
AF064858.8	2.174407187	-0.194403123	7.341916355	4.24E-13	1.86E-11	19.17240594	4.514002405
RP11-615J4.1	2.173022922	0.397516012	7.135018199	1.81E-12	6.27E-11	17.76302309	4.5096733
SERPINI2	2.172891006	1.020491157	6.403204339	2.30E-10	4.15E-09	13.07316087	4.509260967
RP11-112J1.2	2.172643153	-3.238833599	6.213070971	7.50E-10	1.14E-08	11.93113013	4.508486349
RP11-359N11.2	2.16634743	-3.308292747	5.149641716	3.12E-07	2.15E-06	6.139036116	4.488854799
NEGR1	2.157869195	1.356186108	4.511985347	7.15E-06	3.28E-05	3.160343028	4.462552663
CTB-26E19.1	2.152874651	0.238284412	5.610328077	2.59E-08	2.47E-07	8.523097861	4.447130224
ITGAE	2.150280915	4.781857772	12.81810543	4.93E-35	1.39E-31	68.56803385	4.439142172
RXFP1	2.141324653	-0.594616161	4.235853677	2.48E-05	9.78E-05	1.987669202	4.411669309
TRBV6-6	2.140797565	-2.118407629	7.593043332	6.93E-14	3.95E-12	20.93170788	4.410057801
CCDC170	2.13637378	-1.241559741	7.256213204	7.76E-13	3.12E-11	18.58418657	4.396555801
IQCJ-SCHIP1	2.133213698	0.425988749	5.35381798	1.06E-07	8.36E-07	7.171834541	4.386936119
RP3-406A7.7	2.132319266	-2.910208642	7.266690128	7.21E-13	2.95E-11	18.65576021	4.384217177
RP11-356M20.1	2.124327545	-3.567406296	6.65985956	4.43E-11	9.86E-10	14.6650638	4.359998217
ACY3	2.122901858	1.265950671	5.812634599	8.17E-09	9.08E-08	9.630741926	4.355691749
FAM124A	2.116133837	-2.016314909	6.613555784	5.98E-11	1.28E-09	14.37361273	4.33530603
DOCK1	2.112409517	1.425878435	3.827780772	0.000137004	0.000436967	0.38585481	4.324128862
CEACAM8	2.108804449	3.595475733	4.7442293	2.38E-06	1.26E-05	4.201685639	4.313337034
VNN1	2.108316812	3.150291131	5.932002875	4.07E-09	4.93E-08	10.3015238	4.311879354
TRGV9	2.105379306	0.324312329	7.670272546	3.93E-14	2.44E-12	21.48338762	4.303108765
NR6A1	2.091689537	2.898028569	7.46986758	1.69E-13	8.53E-12	20.06215219	4.262469576
SCD5	2.091378252	0.985909379	7.600800217	6.54E-14	3.76E-12	20.98689319	4.261549979
HOPX	2.090987553	1.265955405	5.70173184	1.54E-08	1.58E-07	9.018979991	4.260396055
ZNF366	2.087528655	-2.742206723	6.280812772	4.94E-10	8.00E-09	12.3343648	4.250193884
UMODL1	2.08501577	1.232906236	5.461772865	5.89E-08	5.07E-07	7.733257754	4.242797342
SLC5A10	2.080787615	0.26185912	4.44339195	9.80E-06	4.33E-05	2.862386166	4.230381038
C10orf114	2.079630209	-0.114839873	3.920335669	9.42E-05	0.000315005	0.735375957	4.226988564
FAM198B	2.076897323	2.276855217	5.303425914	1.39E-07	1.06E-06	6.913397536	4.218988992
HTR7	2.074396395	0.643553815	5.080781166	4.45E-07	2.94E-06	5.799310997	4.211681662
CD96	2.074381291	5.128189441	6.426838765	1.98E-10	3.65E-09	13.2173434	4.21163757
TTC24	2.072103126	1.952655587	7.82043484	1.28E-14	9.31E-13	22.57028621	4.204992203
ARHGAP22-IT1	2.070647368	-3.308435677	7.336290788	4.41E-13	1.93E-11	19.1336043	4.20075128
GGT5	2.066216142	1.73619718	5.326705495	1.23E-07	9.50E-07	7.032500031	4.187868501
RP11-497G19.2	2.066065518	0.342371123	4.234624833	2.49E-05	9.82E-05	1.982610171	4.187431291
CNNM1	2.060944331	-2.166597842	5.001937798	6.66E-07	4.17E-06	5.415678832	4.172593364
LINC00211	2.049957296	-0.045010342	7.363202565	3.64E-13	1.64E-11	19.31946722	4.14093712
CLEC12A	2.045595915	5.379845273	7.158129485	1.54E-12	5.51E-11	17.91864942	4.128437646
C17orf51	2.041828494	-0.072622987	7.037420828	3.54E-12	1.14E-10	17.11085641	4.117670801
COL23A1	2.037210479	3.072671019	5.966395451	3.32E-09	4.14E-08	10.49715418	4.104511356
MDF1	2.035353441	-0.660442634	4.585268836	5.08E-06	2.45E-05	3.48351873	4.099231427
XIRP2	2.035240491	-2.888040627	5.184400973	2.60E-07	1.84E-06	6.312171371	4.098910505
VEGFC	2.0272788	-3.254199083	6.221046132	7.14E-10	1.10E-08	11.9783919	4.076352463
PROM1	2.024679222	4.599086526	4.373840315	1.34E-05	5.70E-05	2.564753303	4.069013938
BPI	2.020779025	5.500069331	4.974747983	7.64E-07	4.69E-06	5.28470508	4.058028578
RP11-290L7.3	2.017640449	-3.874326781	6.487927567	1.34E-10	2.59E-09	13.59228711	4.049209953
MUC19	2.015167617	0.455482904	5.339321179	1.14E-07	8.93E-07	7.097250382	4.042275402
AC073043.2	2.014943526	0.804955075	7.187964741	1.25E-12	4.62E-11	18.12022692	4.041647575
METTL7B	2.010626165	-0.047054758	4.520493196	6.88E-06	3.17E-05	3.197605436	4.029570753

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
RFX8	2.004861317	2.80204066	4.511583159	7.17E-06	3.29E-05	3.158583207	4.013501166
CRHBP	2.00078371	1.085415338	6.434407551	1.89E-10	3.49E-09	13.26362065	4.002173497
GUCY1A3	1.995940093	4.114844632	5.409306847	7.85E-08	6.46E-07	7.459083883	3.988759372
PDE7B	1.992304269	0.446486337	7.973281296	4.04E-15	3.35E-13	23.69580289	3.978719711
ZNF385D	1.988572876	-2.361983101	4.714788894	2.75E-06	1.43E-05	4.066907637	3.968442428
SLC51A	1.979300014	-0.509619753	6.406987773	2.24E-10	4.07E-09	13.09620886	3.943017229
HOXA6	1.977361274	1.388696234	2.757258715	0.005930662	0.01208806	-3.062810292	3.937722035
KIAA1456	1.977233369	0.405673296	4.275757786	2.08E-05	8.38E-05	2.152720728	3.937372943
DEFA1	1.970302738	2.49238478	4.114786124	4.18E-05	0.000154421	1.49606257	3.91850337
ADAMTS6	1.965035386	2.435459601	8.454993534	9.32E-17	1.18E-14	27.36813787	3.904222804
RP11-848G14.5	1.962872143	0.999230464	6.2985099	4.42E-10	7.35E-09	12.4403747	3.898373021
ASCL2	1.961832401	0.157614563	6.371661222	2.80E-10	4.94E-09	12.88149546	3.895564497
RP11-848G14.2	1.961761677	-1.736537869	7.532379934	1.08E-13	5.84E-12	20.50186488	3.895373532
MYCN	1.958518647	2.78055411	4.133001489	3.87E-05	0.000144096	1.569146874	3.886626969
RP11-497H16.2	1.952567315	-0.848422561	5.362774116	1.01E-07	8.04E-07	7.21800828	3.870627077
RP11-402J7.2	1.952109735	0.123923182	6.252890643	5.87E-10	9.24E-09	12.16766669	3.869399624
INPP4B	1.950389255	3.294444373	6.627711428	5.46E-11	1.18E-09	14.46251487	3.864787938
CMAHP	1.948944638	5.539268347	10.43700028	2.53E-24	1.35E-21	44.39305884	3.860919939
DEFA3	1.947798811	3.165767923	3.572644124	0.000369552	0.001045129	-0.535547794	3.857854708
RP4-666F24.3	1.947116619	-2.374226323	8.485582069	7.29E-17	9.52E-15	27.60767888	3.856030918
ZNF804A	1.945282637	2.077901367	5.111956333	3.79E-07	2.56E-06	5.952575922	3.851132169
RP11-597D13.9	1.944012688	-1.222223031	5.135053838	3.36E-07	2.30E-06	6.066703679	3.847743657
ADRB1	1.941977233	-0.158546353	4.560949482	5.70E-06	2.70E-05	3.37571744	3.84231882
Z95704.4	1.93592434	-1.654140806	5.672683487	1.82E-08	1.83E-07	8.860571189	3.826231966
RP11-12A2.1	1.929025472	0.725926634	6.370792762	2.82E-10	4.96E-09	12.87623081	3.807978867
CLNK	1.929006086	-1.5709432	5.49938169	4.79E-08	4.23E-07	7.931328277	3.807927698
PDE3A	1.926035271	-0.135110804	4.601039629	4.72E-06	2.29E-05	3.55372065	3.800094435
SPNS2	1.91939698	3.974491424	6.053873262	1.97E-09	2.61E-08	10.99949368	3.782649178
AC007092.1	1.91843109	-2.060958657	5.364525634	1.00E-07	7.97E-07	7.227046839	3.780117527
SPON1	1.917811818	-0.874433068	5.472050961	5.57E-08	4.83E-07	7.787261016	3.778495274
RP11-497H16.6	1.916634809	-0.951096632	5.649817948	2.07E-08	2.04E-07	8.73641365	3.775413882
RP1-249H1.4	1.912623943	-1.553267189	4.955574009	8.41E-07	5.10E-06	5.19275284	3.764932352
FUT7	1.912589907	2.946825585	7.680300351	3.65E-14	2.31E-12	21.55538567	3.764843532
IL2RA	1.908441388	0.491942361	6.346144028	3.29E-10	5.67E-09	12.7270854	3.754033145
TMEM221	1.906810904	-3.720363361	6.380089401	2.66E-10	4.71E-09	12.93262199	3.749792863
CHST12	1.896462291	3.685470803	8.374615804	1.77E-16	2.05E-14	26.74228482	3.72299142
CLEC12B	1.888213074	1.594306823	6.709110971	3.21E-11	7.49E-10	14.97711485	3.701764392
AMN	1.885586428	2.662728925	8.20013841	7.01E-16	7.05E-14	25.40171782	3.695030897
ANO7	1.885226714	1.168505993	5.262623352	1.72E-07	1.29E-06	6.705836169	3.694109712
NAIP	1.882340404	2.827732089	7.633198279	5.16E-14	3.03E-12	21.21792898	3.686726526
DEFA4	1.878387977	3.245667858	3.920849991	9.40E-05	0.000314397	0.737340874	3.676640143
RP11-341G23.4	1.873712019	-1.479621358	6.735191617	2.70E-11	6.52E-10	15.14321175	3.664742974
PF4	1.872667508	-0.412411067	4.217316375	2.69E-05	0.000104796	1.911503552	3.662090662
MMP8	1.867114857	4.379050418	4.203885076	2.85E-05	0.000110256	1.856518955	3.648023079
HSH2D	1.863311694	6.839902826	9.703238964	2.27E-21	8.60E-19	37.74175838	3.638419001
HS3ST5	1.86236817	-4.024820949	6.013696011	2.51E-09	3.22E-08	10.76793038	3.636040251
RP6-109B7.2	1.861523671	-1.9543263	4.589571372	4.98E-06	2.41E-05	3.502648038	3.633912472
DNMT3B	1.86122926	3.862467946	7.696677393	3.23E-14	2.08E-12	21.67315053	3.633170977
FAM83H	1.858437849	1.891161266	5.940782978	3.86E-09	4.73E-08	10.35136604	3.626148099
EMBP1	1.854012388	0.001131597	11.57420721	3.13E-29	3.25E-26	55.46412211	3.615041948
ALCAM	1.84938482	5.172103307	9.147294257	2.99E-19	6.85E-17	32.97169394	3.603464969
NR5A2	1.840373676	-2.724867523	5.35741728	1.04E-07	8.23E-07	7.190382112	3.581027695
AC004840.9	1.836169309	2.506105409	7.348086108	4.05E-13	1.79E-11	19.21499183	3.570606895
NR1I2	1.835474716	0.83797317	6.664533843	4.29E-11	9.62E-10	14.69458895	3.56888822
CTD-2562J15.1	1.833171074	6.496488302	9.671434361	3.02E-21	1.10E-18	37.46251927	3.563194098
MAEL	1.832975575	-2.999355912	5.817567727	7.94E-09	8.87E-08	9.658210553	3.562711286
AGR2	1.823360176	-3.514890261	4.767809604	2.13E-06	1.14E-05	4.310215281	3.539045172
PGAM1P10	1.822153903	-0.90396064	6.082359193	1.66E-09	2.26E-08	11.16454338	3.536087326
AC132807.1	1.813451659	-2.974754483	5.700075133	1.56E-08	1.59E-07	9.009925076	3.514822074
TTLL6	1.803711529	-0.976378503	4.784970844	1.96E-06	1.06E-05	4.389524501	3.491172225
IGLL1	1.795329363	2.531293024	3.781436341	0.000164786	0.000514027	0.213890674	3.470947066

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
WDR49	1.791210531	4.236450985	6.483082868	1.38E-10	2.65E-09	13.56243252	3.461051793
RFPL4A	1.788520548	-4.126210572	5.158668263	2.98E-07	2.06E-06	6.183890881	3.454604488
FLT3	1.787741466	6.654126063	5.463828128	5.83E-08	5.03E-07	7.744048872	3.452739442
GPR27	1.783633975	2.590052945	4.111506321	4.24E-05	0.000156274	1.482936418	3.442923142
MYO7B	1.782848995	2.734378989	5.89254156	5.13E-09	6.03E-08	10.07836307	3.441050332
ZNF185	1.780044686	4.767845766	6.344420999	3.32E-10	5.72E-09	12.71667963	3.43436812
DNTT	1.778942813	0.062414632	3.100457688	0.001984096	0.004601256	-2.076933973	3.431746087
MPP3	1.774382939	-0.869534197	5.437609248	6.73E-08	5.67E-07	7.606674535	3.420916615
BEND6	1.769355991	-1.624696748	4.630245476	4.11E-06	2.03E-05	3.68433796	3.409017466
C1orf186	1.766623246	3.156300111	4.495453377	7.72E-06	3.51E-05	3.088129789	3.402566236
AC013402.5	1.764738899	-4.307272647	5.874526946	5.70E-09	6.59E-08	9.976950086	3.398124944
MDGA1	1.757025325	1.150609977	4.62884658	4.14E-06	2.04E-05	3.678063599	3.380004869
PI3	1.755441249	-3.517218537	5.257355729	1.77E-07	1.32E-06	6.679150631	3.376295668
APCDD1	1.752456478	-2.710763659	4.883007555	1.21E-06	7.01E-06	4.847814389	3.369317721
DEFA1B	1.751165362	-2.266329886	4.485881907	8.07E-06	3.64E-05	3.04643718	3.366303753
GAS6-AS1	1.748493769	1.226910557	6.528603411	1.03E-10	2.07E-09	13.84375493	3.360075777
PTH2R	1.748161565	2.778652303	4.821416511	1.64E-06	9.14E-06	4.558858885	3.359302153
SIGLEC15	1.748078214	-0.478727958	5.22435559	2.11E-07	1.53E-06	6.512549931	3.359108076
C9orf43	1.745080485	1.671998586	7.383175425	3.16E-13	1.45E-11	19.45780323	3.352135543
RP11-81H14.2	1.741096398	0.567333118	6.115939534	1.36E-09	1.89E-08	11.36003628	3.342891194
RP11-443P15.2	1.729613879	-0.934067155	6.134772184	1.21E-09	1.72E-08	11.47011135	3.31639047
AC108004.3	1.729243161	0.847106087	5.158802211	2.97E-07	2.06E-06	6.184557061	3.315538392
CHD5	1.718903765	0.491073216	6.394835478	2.42E-10	4.34E-09	13.02222397	3.291861789
CLC	1.718463865	4.478784702	3.984396597	7.24E-05	0.000249752	0.982038963	3.290858204
EMR1	1.718429494	4.244225699	7.14712581	1.66E-12	5.87E-11	17.84449626	3.290779802
LPAR4	1.707981274	-0.094627836	5.719094091	1.40E-08	1.45E-07	9.11402386	3.267033558
SLTRK4	1.707461695	0.919710773	2.897788134	0.00383672	0.008236916	-2.672863125	3.265857166
SEPP1	1.699477691	2.138869334	4.04727835	5.56E-05	0.000197893	1.227930909	3.247833537
RP11-512H23.2	1.697211181	-0.855046198	6.930012135	7.36E-12	2.18E-10	16.40256393	3.242735115
RP11-588K22.2	1.686185842	1.379586228	4.492081054	7.84E-06	3.56E-05	3.073430453	3.218047992
RP11-630C16.2	1.684799972	-2.747487118	5.708276294	1.49E-08	1.53E-07	9.054773578	3.214958182
RP13-297E16.4	1.683554579	0.618372723	6.21344201	7.48E-10	1.14E-08	11.93332771	3.212184097
AC135352.1	1.682940245	-1.31682274	4.292773204	1.93E-05	7.85E-05	2.2235542	3.210816563
VWF	1.682656661	3.040328191	4.821990663	1.63E-06	9.12E-06	4.561536346	3.21018549
ADAMTS18	1.681159774	-3.142336038	3.585958042	0.000351416	0.001000005	-0.488996988	3.206856447
RP11-726G1.1	1.680791357	1.25955379	7.497918439	1.38E-13	7.15E-12	20.25905604	3.206037627
CLMN	1.674842882	3.261084357	6.602722822	6.42E-11	1.36E-09	14.30569606	3.192845807
PPBP	1.674330317	1.921276081	3.903559934	0.000100877	0.000333989	0.671422986	3.191711644
ATP8B4	1.673259367	8.025110627	6.677592212	3.94E-11	8.92E-10	14.77717291	3.189343232
RASGRP3	1.671696142	4.85031557	7.73519858	2.43E-14	1.62E-12	21.95103145	3.185889308
MSRB3	1.669563047	5.195153737	5.401690964	8.18E-08	6.69E-07	7.419492999	3.181182296
SMAD1	1.655841656	2.744941448	4.953225889	8.51E-07	5.16E-06	5.181515276	3.151069678
RPL5P13	1.65191717	-3.331908854	5.690394196	1.65E-08	1.67E-07	8.957062246	3.142509639
ABCA13	1.644100351	4.721193424	4.39132874	1.24E-05	5.32E-05	2.639166072	3.125528918
LGALS12	1.643918456	2.357660348	6.176633502	9.37E-10	1.38E-08	11.71591304	3.125134878
ARG1	1.643329565	3.026147432	4.109798565	4.27E-05	0.000157239	1.47610579	3.123859494
KLHL13	1.638970149	1.829531822	5.328053512	1.22E-07	9.43E-07	7.039411854	3.114434323
PDE6H	1.637572532	0.076904057	4.576697189	5.29E-06	2.53E-05	3.445460063	3.111418662
EFHA2	1.637077095	-0.46257092	5.181746776	2.64E-07	1.86E-06	6.298911871	3.11035035
DPYSL3	1.637075128	0.942524767	4.096314742	4.52E-05	0.000164893	1.422270081	3.11034611
SPATA6	1.633647995	1.168991861	4.761231117	2.20E-06	1.17E-05	4.279885645	3.102966229
AC110491.1	1.631060483	2.741148044	5.346076207	1.10E-07	8.67E-07	7.131980319	3.097405963
TFEC	1.63046993	5.243960735	6.085415148	1.63E-09	2.22E-08	11.18229266	3.09613833
ANXA3	1.629304301	3.488979533	4.352121673	1.48E-05	6.21E-05	2.472739401	3.093637808
DGKG	1.622422233	5.041222632	6.730968078	2.78E-11	6.68E-10	15.11627372	3.078915414
PLCB1-IT1	1.62058086	-0.125303329	5.053658246	5.12E-07	3.33E-06	5.666693364	3.07498817
TRBV7-4	1.618151677	-3.368151149	5.755261746	1.14E-08	1.21E-07	9.312882203	3.069814918
C1orf127	1.615778732	-0.726147158	5.03702195	5.57E-07	3.58E-06	5.585684356	3.064769836
GPR124	1.615664442	4.171774215	4.55953015	5.73E-06	2.71E-05	3.369442917	3.064527057
CRYBG3	1.615157432	2.433301618	5.454709164	6.13E-08	5.24E-07	7.69619914	3.063450271
SLC15A2	1.613004725	4.605050177	8.412958192	1.30E-16	1.61E-14	27.04018432	3.058882574

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
ENPP2	1.608768372	1.660086208	5.951257757	3.63E-09	4.48E-08	10.41091852	3.049913597
GPT2	1.608456135	3.627243389	6.384764461	2.58E-10	4.59E-09	12.96100849	3.049253587
AC021188.4	1.606736876	0.033014682	7.81870773	1.30E-14	9.40E-13	22.55767864	3.045621957
CAPN14	1.603956487	-0.551305566	6.177038587	9.35E-10	1.38E-08	11.71829921	3.039758031
KRT8P26	1.599814948	-1.714686858	5.928999578	4.14E-09	5.01E-08	10.28449071	3.031044321
SORCS2	1.589008755	0.184940017	4.400405863	1.19E-05	5.15E-05	2.677901739	3.008425759
RP11-271K11.5	1.587670357	-0.881437417	6.102747192	1.47E-09	2.03E-08	11.28311572	3.005636117
RP5-857K21.11	1.583993124	-2.448429606	4.829541693	1.57E-06	8.83E-06	4.596777661	2.997984915
ERG	1.582194503	5.218967117	5.272840136	1.63E-07	1.22E-06	6.757666114	2.994249629
IL1R2	1.574607335	0.126152308	3.821129308	0.0001407	0.000447076	0.361048945	2.978544132
AC046143.7	1.572517675	0.446535201	6.873022509	1.08E-11	3.05E-10	16.03078221	2.974233006
RP11-475D8.1	1.570031319	-2.358873414	5.797560897	8.91E-09	9.82E-08	9.546943811	2.969111597
ASS1P1	1.56667477	2.894709126	6.252935637	5.87E-10	9.24E-09	12.16793476	2.962211742
CD200	1.563954811	2.802095562	5.088930214	4.27E-07	2.84E-06	5.839287704	2.956632251
DDO	1.561511669	0.396692922	4.233516844	2.50E-05	9.87E-05	1.978049905	2.95162956
RBPMS2	1.559375742	-0.831339952	3.580622149	0.000358582	0.001018047	-0.507673695	2.94726287
IL12A	1.55859222	-0.120251524	6.990928126	4.87E-12	1.52E-10	16.80305045	2.945662657
NAALADL2	1.555172803	-0.173173192	4.454203678	9.33E-06	4.14E-05	2.909058783	2.938689235
RP1-169K13.3	1.554817196	-0.99323374	5.185026356	2.59E-07	1.83E-06	6.315296517	2.937964973
FOXC1	1.554100642	0.092610393	2.95973374	0.003148705	0.006901262	-2.494918629	2.936506115
TMEM105	1.553783294	-0.999785078	3.376000084	0.000762618	0.00197414	-1.20339736	2.935860245
RTN4R	1.553322568	0.567150552	5.137970271	3.31E-07	2.27E-06	6.081148911	2.934922827
MACC1	1.549506879	2.763987616	4.657134814	3.62E-06	1.82E-05	3.805296013	2.927170699
TRPC2	1.549327798	0.902579629	5.046103088	5.32E-07	3.44E-06	5.629872662	2.926807373
PRHOXNB	1.545569876	-2.06486699	5.663392504	1.92E-08	1.91E-07	8.810065275	2.919193565
PRKCZ	1.542076098	1.71020774	6.185902242	8.86E-10	1.31E-08	11.77054722	2.912132701
GPR141	1.541671244	2.625961216	5.558535965	3.45E-08	3.18E-07	8.24546212	2.911315602
CLU	1.538930428	3.508918227	4.462846703	8.97E-06	4.00E-05	2.946447926	2.905789968
TNS3	1.538784837	6.244783134	6.160154932	1.04E-09	1.51E-08	11.6189687	2.905496741
SOCS2-AS1	1.537404647	0.890879486	4.65166155	3.72E-06	1.86E-05	3.780620836	2.902718455
MRC1L1	1.536836233	-2.252179965	3.968513165	7.73E-05	0.000264367	0.92051914	2.901575026
C21orf128	1.534664172	-2.225651182	4.997622581	6.80E-07	4.24E-06	5.394846963	2.897209823
RP11-480I12.7	1.533271603	-2.263306113	5.816070153	8.01E-09	8.93E-08	9.649869461	2.894414625
SLC1A3	1.53191728	2.36300618	5.707785176	1.49E-08	1.53E-07	9.052086168	2.891698782
C15orf27	1.531696136	-2.695513828	5.154467873	3.04E-07	2.10E-06	6.163009002	2.891255562
RP11-353N4.2	1.530128296	-1.194605005	6.667027058	4.23E-11	9.49E-10	14.71034513	2.888115213
PADI4	1.529286619	4.898780207	4.741916222	2.41E-06	1.27E-05	4.191067305	2.886430761
SPG20OS	1.526859305	-0.881648652	6.398095857	2.37E-10	4.27E-09	13.04206088	2.881578466
RP11-305O6.3	1.525303511	2.890118407	4.811098829	1.72E-06	9.53E-06	4.510796062	2.878472664
PTGFR	1.524955444	-4.085983591	4.81349721	1.70E-06	9.44E-06	4.521959655	2.877778283
CCDC169	1.523049055	0.418079854	5.972742715	3.20E-09	4.01E-08	10.53337379	2.873978074
SYTL1	1.519190675	5.889453441	8.870154569	3.12E-18	5.16E-16	30.68305245	2.866302103
NME8	1.518812634	0.778764881	5.709027393	1.48E-08	1.52E-07	9.058884028	2.865551121
TSPAN32	1.516488938	4.956113666	6.172500729	9.61E-10	1.41E-08	11.69157712	2.860939397
PLXDC2	1.514879499	4.671183003	4.801306282	1.81E-06	9.93E-06	4.465270527	2.857749575
PDZD7	1.51413134	0.753106806	4.548355546	6.04E-06	2.84E-05	3.320108218	2.856267977
CD24P4	1.510233055	2.871174625	4.27976446	2.04E-05	8.25E-05	2.169375675	2.848560514
BMPR1B	1.509366302	-3.642517031	3.922914894	9.32E-05	0.000312017	0.745232164	2.846849648
HRH4	1.507436605	0.069399354	5.353937097	1.06E-07	8.36E-07	7.172448172	2.843044351
KCNK5	1.505150767	3.792459215	5.579006249	3.08E-08	2.88E-07	8.354905056	2.838543335
RNASEH2C	1.500632516	5.16130907	9.377599701	4.07E-20	1.20E-17	34.91900911	2.829667455
PHACTR3	1.500445227	-1.495226494	2.557754976	0.010675579	0.02036029	-3.583580471	2.829300135
HPGDS	1.499142584	0.466834127	2.857815299	0.004350574	0.009200195	-2.785723107	2.826746646
RP11-508M1.3	1.498457405	1.655761475	6.986207388	5.03E-12	1.57E-10	16.77190042	2.825404458
CCDC149	1.49840482	1.9997135	4.789767978	1.91E-06	1.04E-05	4.411742794	2.825301476
MGLL	1.497200067	5.378827492	6.391157496	2.48E-10	4.44E-09	12.99985746	2.822943135
PLXNC1	1.493821841	6.1288061	5.91400808	4.52E-09	5.41E-08	10.19958744	2.816340641
MPP7	1.493461482	3.788883041	6.720529046	2.98E-11	7.05E-10	15.04975924	2.815637258
HIP1	1.488956784	6.04185493	7.755089371	2.09E-14	1.43E-12	22.09500136	2.806859371
DHRS9	1.486571999	2.081630289	4.728915183	2.57E-06	1.35E-05	4.131477457	2.802223445
ADRB2	1.482129456	3.915059559	6.392219758	2.46E-10	4.41E-09	13.00631606	2.79360773

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
COL17A1	1.481936811	-0.018007891	3.473083607	0.000535645	0.001446821	-0.878293604	2.793234721
RP11-436I9.5	1.480274109	-0.148689853	6.679662003	3.89E-11	8.82E-10	14.79027633	2.790017379
PPP1R8P1	1.478712483	-2.224132478	4.687163041	3.14E-06	1.60E-05	3.941167475	2.786998997
RHPN1	1.476388274	4.138070229	5.965543887	3.34E-09	4.15E-08	10.49229761	2.782512703
ACP6	1.474327963	2.123132571	6.177036686	9.35E-10	1.38E-08	11.71828801	2.778541836
KIT	1.474067566	6.035765745	4.667244447	3.45E-06	1.74E-05	3.850946531	2.778040373
SV2B	1.469928712	-1.148500459	3.791210321	0.000158518	0.000496811	0.249988202	2.770082055
INHBA	1.46923691	1.730739188	4.17127439	3.28E-05	0.000124803	1.723723844	2.768754062
GCNT1P3	1.467355147	-0.357776666	6.124784431	1.28E-09	1.81E-08	11.41169469	2.765145024
DPYD	1.466632045	5.881965455	7.208676242	1.08E-12	4.09E-11	18.26060697	2.763759435
PDGFD	1.466423623	0.142867912	3.967825404	7.75E-05	0.000265028	0.917860684	2.763360192
HOXA3	1.465973544	1.850716174	2.293739527	0.022003733	0.038619597	-4.213356598	2.762498238
TIFAB	1.465160493	1.617610604	2.968449375	0.003061509	0.006733339	-2.469585193	2.760941832
NHSL2	1.46291197	2.28184801	4.204507217	2.84E-05	0.00011	1.859062112	2.756642097
NPM2	1.458198087	0.459057214	6.075175214	1.73E-09	2.34E-08	11.12285084	2.747649702
NEXN	1.457484494	-0.083293129	6.758899164	2.31E-11	5.66E-10	15.29470721	2.746290982
PLA2G4A	1.457418507	3.630511061	7.197561241	1.17E-12	4.35E-11	18.18522544	2.746165374
AC093627.10	1.457088533	2.281092501	6.702292767	3.35E-11	7.77E-10	14.93378985	2.745537342
CMTM4	1.456764659	4.085485971	6.119539518	1.33E-09	1.86E-08	11.38105352	2.744921058
LRRC63	1.456096371	-0.595158208	6.472999659	1.48E-10	2.80E-09	13.50036243	2.743649845
SOHLH2	1.454909245	0.095529076	5.588046434	2.93E-08	2.76E-07	8.40335832	2.741393153
RP11-382B18.2	1.452036768	0.252862838	5.227752412	2.07E-07	1.50E-06	6.529652815	2.735940334
RP11-508M1.7	1.451242902	-3.714928557	4.533568721	6.47E-06	3.01E-05	3.255004714	2.734435253
RAB44	1.451038218	3.320309561	5.796477538	8.97E-09	9.87E-08	9.540929021	2.73404733
CYP4F3	1.450996711	2.972378311	3.709051657	0.000219012	0.000659649	-0.05062006	2.733968671
RNASE3	1.449405084	4.438432299	3.720669122	0.000209304	0.000633436	-0.008502302	2.730954133
RP11-262H14.1	1.449170101	3.485459245	5.315112664	1.30E-07	1.01E-06	6.973127315	2.730509358
GPR97	1.448627626	4.979959921	4.598712068	4.77E-06	2.31E-05	3.543345221	2.729482838
CCDC169-SOHLH2	1.446849929	-0.049913142	5.649171896	2.08E-08	2.05E-07	8.7329125	2.726121624
LINC00571	1.446692445	-2.268956529	6.350775386	3.19E-10	5.52E-09	12.7550682	2.725824058
SLC46A1	1.446372292	1.432846583	4.632899013	4.06E-06	2.01E-05	3.696244667	2.725219231
FAM27E1	1.445802151	-2.425663088	4.740098295	2.43E-06	1.28E-05	4.182725475	2.724142459
RP11-764K9.2	1.44216237	-2.198114753	6.510991394	1.16E-10	2.27E-09	13.73469555	2.717278372
BLNK	1.441225508	1.240781203	5.278782348	1.58E-07	1.19E-06	6.787854876	2.71551439
NBPF3	1.439886319	2.041199878	5.119822015	3.64E-07	2.46E-06	5.991386373	2.712994869
CD38	1.430981812	5.397897182	7.340646759	4.27E-13	1.88E-11	19.16364672	2.696301471
GARNL3	1.430756528	0.10876729	5.816234722	8.00E-09	8.93E-08	9.650785966	2.695880464
RP11-597D13.7	1.430406524	-1.4619813	6.60734065	6.23E-11	1.32E-09	14.33463478	2.69522651
MGST1	1.427467519	3.749589432	3.622717961	0.000305578	0.000883716	-0.359592859	2.689741483
ST3GAL4	1.425597639	5.154513546	7.580323719	7.60E-14	4.25E-12	20.84132492	2.686257562
AC018633.4	1.422069122	2.073816204	7.295976134	5.86E-13	2.45E-11	18.85632318	2.679695591
APOL4	1.419942182	-0.169469144	4.044806785	5.62E-05	0.000199815	1.2181957	2.675747873
RGS3	1.419774017	4.567262087	7.372452433	3.41E-13	1.55E-11	19.38349174	2.675435998
DYX1C1	1.419760003	-1.053891339	6.318555886	3.91E-10	6.59E-09	12.56078829	2.67541001
ATP1B1	1.416392189	3.332149519	6.484441475	1.37E-10	2.63E-09	13.57080262	2.66917184
GCNT1	1.416105072	4.486660072	7.723461086	2.65E-14	1.74E-12	21.86622963	2.668640691
FRMD3	1.416103324	2.359381667	5.823490534	7.67E-09	8.61E-08	9.691218731	2.668637458
RP11-451B8.1	1.414753015	-4.149981233	4.738068598	2.46E-06	1.30E-05	4.173415526	2.66614088
CD33	1.413056434	4.517671493	6.725275288	2.88E-11	6.89E-10	15.07998919	2.663007394
KANK1	1.412885222	3.35696199	6.208917384	7.69E-10	1.17E-08	11.90653775	2.66269138
CTD-2335A18.1	1.411848533	-0.348631421	4.294441335	1.91E-05	7.80E-05	2.230513069	2.660778716
CLIP4	1.411408696	3.673975587	5.960947219	3.43E-09	4.26E-08	10.46609341	2.659967642
RP11-429J17.6	1.409731261	-2.376586518	4.806315817	1.76E-06	9.72E-06	4.488548769	2.656876671
GTSF1	1.404454267	2.773730966	3.291681077	0.001029323	0.002578994	-1.478440143	2.647176275
SULT1B1	1.401757435	0.714406648	4.629880525	4.12E-06	2.03E-05	3.6827009	2.642232528
TMEM217	1.39815483	1.695496783	7.644235424	4.76E-14	2.83E-12	21.29683701	2.635642746
GJA3	1.396232281	-3.754928496	3.959411246	8.02E-05	0.000273448	0.88537294	2.632132802
CD180	1.395115397	3.163717231	4.35511408	1.46E-05	6.14E-05	2.485390908	2.630095886
AC099489.1	1.394125323	2.212229029	6.144157009	1.14E-09	1.64E-08	11.52508219	2.628291557
RP11-1055B8.3	1.392088028	-1.978152187	4.054164665	5.41E-05	0.000193042	1.255085693	2.624582646
HOXA11-AS	1.390028549	-1.754995018	2.679173682	0.00749666	0.014868356	-3.27123024	2.620838669

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
FAAH	1.389365758	3.940250085	7.097301222	2.35E-12	7.92E-11	17.51002451	2.619634903
SKAP2	1.388632235	5.256321154	6.258460135	5.67E-10	9.00E-09	12.20086221	2.618303315
LINC00278	1.385865259	-1.905779663	2.392705511	0.0169009	0.030555141	-3.985226763	2.613286428
PCCA	1.385561585	3.222693992	4.577256534	5.28E-06	2.52E-05	3.447941506	2.612736413
HDAC9	1.384151572	4.663511052	6.100492655	1.49E-09	2.05E-08	11.26998565	2.610184112
RP11-17A1.3	1.381016667	-0.564298713	6.149029664	1.11E-09	1.60E-08	11.55365417	2.604518468
C11orf21	1.380097022	5.435108451	6.255686467	5.77E-10	9.13E-09	12.18432706	2.602858748
RP11-380M3.1	1.377044859	-0.965532987	5.591703931	2.87E-08	2.71E-07	8.422982621	2.597357965
RP11-325F22.2	1.376491333	3.72703824	6.806929747	1.68E-11	4.35E-10	15.60312346	2.596361616
TNFSF13B	1.375251759	3.63726489	5.813538313	8.13E-09	9.05E-08	9.635772348	2.594131761
C20orf197	1.373976771	1.686830542	5.340284985	1.14E-07	8.90E-07	7.1022031	2.591840198
NEK5	1.3737714	-1.765143217	5.399272935	8.29E-08	6.78E-07	7.406933991	2.591471271
PAPLN	1.372203804	1.546241386	4.897287458	1.13E-06	6.62E-06	4.915308955	2.588656973
KNDC1	1.371672221	-3.011615067	4.139665276	3.76E-05	0.000140678	1.595961563	2.587703318
ITGA1	1.371346328	0.11605955	4.911585851	1.05E-06	6.21E-06	4.983079384	2.587118844
SLC2A8	1.370902867	1.10273233	5.18770874	2.56E-07	1.81E-06	6.32870491	2.586323727
NFIX	1.368438454	5.541497147	5.906869278	4.72E-09	5.62E-08	10.15922793	2.581909539
MT-ND5	1.367742378	8.996443073	6.279681256	4.97E-10	8.03E-09	12.32759615	2.58066411
SLC2A5	1.367582769	4.911675778	5.380924859	9.15E-08	7.37E-07	7.311809002	2.580378622
FRY	1.366993322	7.001292972	7.230152792	9.32E-13	3.62E-11	18.40655792	2.579324561
CDK14	1.364326658	4.260706007	5.358132749	1.03E-07	8.20E-07	7.194070402	2.574561367
FAM201A	1.36325802	-1.033265041	3.375971944	0.000762695	0.00197414	-1.203490287	2.572655034
C10orf11	1.363241342	3.850040936	4.592484522	4.91E-06	2.38E-05	3.515609836	2.572625293
JAG1	1.362341071	4.430583369	4.546374045	6.10E-06	2.86E-05	3.311372238	2.571020425
ANTXRL	1.360542601	-3.250265547	4.84290637	1.47E-06	8.33E-06	4.659280932	2.567817376
CTC-820M8.1	1.357292009	-0.375461499	6.379825831	2.66E-10	4.71E-09	12.93102219	2.56203824
TELO2	1.356483961	5.341105154	9.360335056	4.73E-20	1.35E-17	34.77161266	2.560603653
VSTM1	1.355834121	2.203770196	3.324117493	0.000917866	0.002329024	-1.373440552	2.559450529
RP11-368I7.2	1.353950214	1.473019183	6.564296386	8.23E-11	1.69E-09	14.06560887	2.556110516
IDH1	1.352693755	4.97201634	8.998897586	1.06E-18	2.03E-16	31.73874608	2.55388534
MT-ND4L	1.351472176	7.136683927	6.190031503	8.64E-10	1.29E-08	11.79491145	2.551723795
SDPR	1.350122965	1.79827994	3.42140465	0.000647161	0.001707127	-1.052472447	2.549338532
AC104809.3	1.348450156	-2.860482705	3.722791915	0.000207575	0.000629263	-0.00079251	2.546384281
GLIPR1	1.347420613	5.987279413	6.204525098	7.90E-10	1.20E-08	11.88054868	2.544567766
OSBPL1A	1.346588549	3.745558411	4.680470593	3.24E-06	1.65E-05	3.910813068	2.543100628
TRBV6-5	1.343268164	-1.930716849	4.787057384	1.94E-06	1.05E-05	4.399185854	2.537254373
MMRN1	1.342318253	3.709206894	3.211594874	0.001360401	0.003295907	-1.733367155	2.535584322
AL023807.2	1.342291167	0.108202562	4.933435084	9.40E-07	5.63E-06	5.087002812	2.535536718
OTUB2	1.341008156	-0.452862144	5.625611923	2.37E-08	2.31E-07	8.605491027	2.533282829
C5orf20	1.33968104	0.555924493	2.804922886	0.005126434	0.010621157	-2.932688412	2.530953567
TMEM144	1.335934468	2.448162965	5.878098418	5.58E-09	6.48E-08	9.99703256	2.524389396
ASRGL1	1.335751352	2.810779399	5.04635727	5.31E-07	3.44E-06	5.631110589	2.524069004
MGAM	1.334598559	5.119377418	3.862376827	0.000119213	0.000386838	0.515552875	2.522052939
AC005062.2	1.333940376	-2.013543449	4.432485049	1.03E-05	4.52E-05	2.815413305	2.520902596
U1	1.333770602	3.293020995	3.449469746	0.000584168	0.001561	-0.958198377	2.520605958
FRMD4B	1.333613477	4.197342971	6.824695799	1.49E-11	3.98E-10	15.71770934	2.520331452
STXBP5-AS1	1.333469537	0.566784874	7.207715591	1.09E-12	4.11E-11	18.25408772	2.520080007
CPNE7	1.333213142	0.747601726	3.476280195	0.000529373	0.001432431	-0.867436039	2.519632179
MT-ND3	1.330957424	4.835662063	6.40382063	2.29E-10	4.14E-09	13.07691435	2.515695701
RP11-1000B6.4	1.32983463	2.266960924	5.615784467	2.51E-08	2.41E-07	8.552488333	2.513738593
NLRP12	1.328143413	2.662257728	3.879918875	0.000111048	0.000363573	0.581749856	2.510793558
AC026150.9	1.327606389	-0.341811505	5.55238583	3.58E-08	3.28E-07	8.212654862	2.509859124
RP11-432J24.3	1.327232954	-1.718344115	5.640773355	2.18E-08	2.14E-07	8.687432515	2.509209542
CLIP2	1.325539227	6.041320634	6.723369148	2.92E-11	6.95E-10	15.06784618	2.506265453
AK5	1.322810143	0.444964241	3.30889574	0.000968697	0.002445109	-1.422840252	2.50152894
AC051649.16	1.322179398	-0.407064434	4.676649439	3.30E-06	1.67E-05	3.893500402	2.500435513
MT-ND6	1.321721593	6.013122072	5.043722367	5.38E-07	3.48E-06	5.61828088	2.499642184
USP32P3	1.321241276	0.631555923	6.878497478	1.04E-11	2.95E-10	16.06637758	2.498810116
EFCAB6	1.320208211	-2.038201373	4.982862534	7.33E-07	4.52E-06	5.323721782	2.497021444
AMICA1	1.318487261	3.572888728	4.503864495	7.43E-06	3.40E-05	3.12483852	2.494044593
NYNRIN	1.318442436	3.598184816	4.686639825	3.15E-06	1.61E-05	3.938792868	2.493967104

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
PRR5L	1.313661346	2.902445926	5.130720028	3.44E-07	2.34E-06	6.045252506	2.48571578
CAT	1.313308391	7.943466094	7.516767157	1.21E-13	6.37E-12	20.39173677	2.485107724
RP11-1277A3.2	1.312845645	2.634351863	7.18481026	1.28E-12	4.67E-11	18.09887828	2.484310751
UNC80	1.312473885	-2.477715534	4.430259503	1.04E-05	4.56E-05	2.805842175	2.483670666
SNED1	1.311101455	2.600332582	4.867185413	1.31E-06	7.51E-06	4.77325014	2.481309083
LMLN	1.307126228	2.217350384	8.642737351	2.04E-17	2.91E-15	28.8501998	2.474481452
OLIG1	1.306853729	1.302492842	3.772481818	0.000170732	0.000529705	0.18089914	2.47401411
NRXN2	1.303114314	3.331700831	4.638123345	3.96E-06	1.97E-05	3.719705919	2.467609856
AC011841.1	1.303087655	0.066759624	4.377711506	1.32E-05	5.62E-05	2.581200461	2.46756426
MAP1A	1.301533389	3.996530775	4.768581184	2.12E-06	1.14E-05	4.31377522	2.464907297
AZU1	1.300822541	7.912636183	3.517322143	0.000454707	0.001255359	-0.727165923	2.463693081
AIFM3	1.300404166	2.585712126	4.626963745	4.18E-06	2.06E-05	3.669621533	2.462978725
RP11-271K11.1	1.299130685	-1.925946783	5.15942319	2.96E-07	2.06E-06	6.18764565	2.460805589
AMDHD1	1.298897456	-1.778721663	5.461960049	5.89E-08	5.07E-07	7.7342404	2.460407802
CEACAM4	1.298612555	2.301822775	4.104586526	4.37E-05	0.000160051	1.455275825	2.459921973
WDR96	1.297973629	-2.094439022	5.534379278	3.95E-08	3.58E-07	8.116797491	2.458832789
KCNQ1	1.297270157	3.293361595	4.728989326	2.57E-06	1.35E-05	4.131816844	2.45763413
CABLES1	1.295962229	2.592591262	4.086248889	4.72E-05	0.000171298	1.382192641	2.455407083
AC092619.1	1.295825276	-2.825357801	3.411685585	0.000670412	0.001760455	-1.084944473	2.455174005
TMEM178A	1.295646098	-1.919732231	5.174448741	2.74E-07	1.92E-06	6.262486504	2.4548691
AGAP7	1.295636436	-0.558138393	4.803285434	1.79E-06	9.85E-06	4.474464449	2.454852658
RP11-946L16.1	1.294824976	-1.805366282	5.313426633	1.32E-07	1.01E-06	6.964502498	2.453472287
AC003665.1	1.292610579	-1.208002452	4.507614166	7.30E-06	3.34E-05	3.141224507	2.449709334
MT-ND4	1.290633816	9.680047799	6.357253304	3.07E-10	5.33E-09	12.79423964	2.44635507
KRT23	1.286341083	-1.589195398	2.998572859	0.002776847	0.006179613	-2.381462468	2.439086771
RP11-764K9.1	1.286235648	-0.939986675	5.009511852	6.41E-07	4.03E-06	5.452284273	2.438908524
FOLR3	1.286123658	-0.186570922	3.254720635	0.001171155	0.002886585	-1.596855372	2.43871921
SPATC1	1.285085646	-0.253462991	4.376375697	1.33E-05	5.65E-05	2.575523551	2.436965194
TNFAIP6	1.284943788	0.103683276	3.850078022	0.000125271	0.000403709	0.469315662	2.436725583
HOMER3	1.284805578	4.935125273	4.619912323	4.32E-06	2.12E-05	3.638034355	2.436492156
ZNF485	1.284283813	0.17551785	6.118919429	1.33E-09	1.86E-08	11.37743253	2.435611134
DYSF	1.284039102	6.446247704	4.206785192	2.81E-05	0.000109065	1.868377009	2.435198038
PTP4A3	1.283989743	2.800779976	4.996762467	6.83E-07	4.26E-06	5.390696778	2.435114724
RP11-389C8.2	1.283824562	-3.390579929	4.057796828	5.32E-05	0.000190421	1.269426402	2.434835932
ANKRD18A	1.283560752	2.151046611	3.006734284	0.002704006	0.006035897	-2.357436634	2.434390742
DIAPH2	1.282583997	6.130065208	7.375353832	3.34E-13	1.52E-11	19.40358916	2.432743131
PABPC1L	1.279527572	4.944569012	9.356105967	4.91E-20	1.38E-17	34.73554183	2.427594694
NAPSB	1.278104446	1.771960019	3.034058065	0.002472681	0.005581428	-2.276533156	2.425201207
ENAH	1.277587276	-0.424116091	3.324181485	0.000917658	0.002328795	-1.373232408	2.42433199
GCSAML	1.277584362	2.046187052	3.163957522	0.001601449	0.003815699	-1.882085161	2.424327093
RGS18	1.277103177	4.026305066	5.79963244	8.81E-09	9.71E-08	9.558447903	2.423518637
OR2L2	1.277091432	-2.735305101	4.281315667	2.03E-05	8.21E-05	2.175827772	2.423498907
CCDC162P	1.275336166	-0.86774335	4.405072129	1.17E-05	5.05E-05	2.697844513	2.420552132
GUCY1B3	1.273333938	2.361762229	4.203239218	2.86E-05	0.000110521	1.853879235	2.417195126
CSGALNACT1	1.272692155	3.67247633	5.648747347	2.08E-08	2.05E-07	8.730611947	2.416120076
MINA	1.272655372	2.579932495	6.854624057	1.22E-11	3.35E-10	15.91135461	2.416058476
DEPDC7	1.270234884	1.365578967	4.864562047	1.32E-06	7.59E-06	4.760909459	2.412008321
SLC40A1	1.269928451	4.885243361	3.984115129	7.24E-05	0.000249999	0.980946705	2.411496057
AC009948.5	1.264493347	3.798122597	8.425693563	1.18E-16	1.46E-14	27.13939353	2.402428254
CITF22-92A6.1	1.263993733	0.306664853	6.603369286	6.39E-11	1.35E-09	14.30974616	2.401596422
TARM1	1.262737455	-2.46244402	3.464048299	0.000553749	0.001490009	-0.908930256	2.399506058
PIK3R6	1.261903913	4.196666083	6.965534398	5.79E-12	1.77E-10	16.63571409	2.398120101
PANX2	1.261850105	2.544645426	4.399862466	1.19E-05	5.16E-05	2.67558068	2.398030662
HTRA3	1.261234255	1.695560521	3.664846096	0.000259957	0.000767538	-0.209709443	2.397007221
CIITA	1.260312256	7.166087671	5.01646023	6.18E-07	3.92E-06	5.485912205	2.395475828
TMEM150B	1.260190838	0.296358951	4.442946877	9.82E-06	4.34E-05	2.86046719	2.395274233
SLC17A9	1.258029974	6.148087175	6.617114101	5.85E-11	1.25E-09	14.39594371	2.391689284
RP11-142C4.5	1.255867492	-1.974671435	5.021208825	6.04E-07	3.84E-06	5.508919427	2.388107022
RP11-369K16.1	1.255546179	-2.337445779	3.763483195	0.000176911	0.000546298	0.147821778	2.387575209
AC074286.1	1.254903821	2.529404611	6.459052684	1.61E-10	3.02E-09	13.41465461	2.386512382
CACNG4	1.253918199	-4.273416479	3.208444336	0.001375245	0.00332819	-1.743270032	2.384882517

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
ANKRD63	1.253788392	-1.544174388	5.00997179	6.39E-07	4.03E-06	5.454508852	2.384667946
ANKRD18DP	1.252986813	-2.383913797	3.646330846	0.000279158	0.000816311	-0.275790975	2.383343363
MCTP2	1.252352654	6.352852139	5.0011547	6.68E-07	4.18E-06	5.411897129	2.382295959
CSF1R	1.249313436	5.115470856	3.770865945	0.000171827	0.000532849	0.174953816	2.377282636
EIF4E3	1.249069789	5.214089119	4.994108143	6.93E-07	4.31E-06	5.377893535	2.376881186
HCG4P3	1.248954517	-0.461186476	6.840640147	1.34E-11	3.62E-10	15.82077801	2.376691281
CD244	1.247952559	4.667914371	5.5119849	4.47E-08	3.98E-07	7.997991029	2.375041231
RP11-353N4.4	1.245008015	-1.263043217	5.1614793	2.93E-07	2.04E-06	6.197874737	2.37019871
HGF	1.244223457	3.822579527	3.012793695	0.002651061	0.005933829	-2.339557262	2.368910113
RP11-269C23.3	1.241433883	-1.257442139	3.09760622	0.002003106	0.00463662	-2.085592738	2.364334048
TRIM71	1.239892649	1.561175825	2.614666232	0.009060368	0.017632677	-3.438955542	2.361809575
STON1-GTF2A1L	1.23613506	0.780783764	6.543057683	9.43E-11	1.90E-09	13.93346309	2.355666099
ERMP1	1.23595754	5.397394403	8.061593024	2.05E-15	1.83E-13	24.35487698	2.355376257
CASP1	1.234816159	4.753863369	7.049238082	3.27E-12	1.07E-10	17.18938818	2.353513549
ZNF658	1.234477096	-0.432048174	5.635121928	2.25E-08	2.20E-07	8.656864568	2.352960491
OLFML2B	1.234457944	-1.189424845	3.598907944	0.000334579	0.00095748	-0.443556912	2.352929256
FGFRL1	1.234091969	4.007676696	6.261124362	5.58E-10	8.87E-09	12.21675133	2.352332452
RP11-686D22.8	1.233429089	0.167516963	5.231649067	2.03E-07	1.48E-06	6.549285323	2.351251866
XXbac-B135H6.15	1.233094484	-0.034413577	4.7163799	2.73E-06	1.42E-05	4.074170718	2.350706602
RP11-632K20.1	1.232608396	-0.410150732	4.442420254	9.85E-06	4.35E-05	2.858196843	2.34991471
LSP1	1.232461631	6.350200609	5.670267933	1.85E-08	1.85E-07	8.847432721	2.349675668
RUSC2	1.231895128	4.815504335	4.305775057	1.82E-05	7.46E-05	2.27786254	2.348753201
SHROOM4	1.231528325	-0.024719451	2.63039639	0.008654293	0.016934291	-3.398427473	2.348156109
AC092535.1	1.231451934	2.121915189	5.95652541	3.52E-09	4.36E-08	10.44090383	2.348031778
CCDC144C	1.230893205	2.205607767	6.901044093	8.95E-12	2.60E-10	16.21323619	2.347122606
RP11-443B7.3	1.229686499	2.456706355	5.338922444	1.15E-07	8.94E-07	7.095201644	2.345160234
CD300LF	1.229592251	3.945945053	5.660618647	1.95E-08	1.93E-07	8.795001626	2.345007036
RP11-686D22.3	1.229115487	-0.572694111	5.167860423	2.84E-07	1.98E-06	6.229645275	2.344232214
AL163953.3	1.228799289	-0.516434405	6.846760024	1.29E-11	3.51E-10	15.86039691	2.343718481
MAFIPL	1.227092223	-2.544592137	3.592488748	0.000342828	0.00097839	-0.466101278	2.34094692
RPA4	1.226034365	0.542240486	6.59352744	6.81E-11	1.43E-09	14.24812637	2.339231048
GPSM1	1.225270092	4.617704323	5.396641851	8.40E-08	6.85E-07	7.393274431	2.337992159
TNNT3	1.222837578	1.295073997	5.81267453	8.17E-09	9.08E-08	9.630964182	2.334053416
GAL3ST2	1.221632862	-0.601461305	3.663618224	0.000261191	0.000770604	-0.214101854	2.332105188
FAM173B	1.221596481	2.176847944	6.29357625	4.56E-10	7.53E-09	12.41079322	2.33204638
LANCL3	1.221264842	0.925625482	3.963312528	7.90E-05	0.000269547	0.900427789	2.331510363
CEL	1.220213361	0.171625677	5.396785364	8.40E-08	6.85E-07	7.394019331	2.329811705
RNF144B	1.21878256	3.741094195	4.58116002	5.18E-06	2.48E-05	3.465266788	2.327502246
PGLYRP1	1.218451515	2.668502605	2.698528745	0.007077255	0.014137914	-3.220119056	2.326968232
SLFN12	1.217003144	2.244606569	5.684281859	1.70E-08	1.73E-07	8.923729237	2.324633281
GPR162	1.216520043	1.427479488	3.890567083	0.000106352	0.000349768	0.622074208	2.323854985
MIR5584	1.214813077	-1.852972437	4.678991522	3.26E-06	1.66E-05	3.904110171	2.321107074
LRRC1	1.210515395	1.505697777	7.029675692	3.74E-12	1.20E-10	17.05945089	2.314202956
VN1R108P	1.210239722	-1.794326289	5.048446296	5.25E-07	3.41E-06	5.64128688	2.313760797
CD36	1.207755929	5.322027822	3.811833068	0.000146023	0.00046213	0.326449956	2.309780774
RP11-832A4.5	1.203819132	-3.011547847	4.220321537	2.65E-05	0.000103657	1.923829181	2.303486483
RP11-142C4.4	1.203587431	-2.346005903	4.502909217	7.46E-06	3.41E-05	3.120666069	2.303116567
CTD-3065J16.6	1.203584071	-1.079455526	4.213953994	2.73E-05	0.000106195	1.89772285	2.303111202
RP11-473M20.9	1.203267497	2.146779957	5.008909883	6.43E-07	4.04E-06	5.449373023	2.302605881
FANK1	1.203055756	-0.520639207	4.908902196	1.06E-06	6.28E-06	4.97034523	2.302267957
CRYM-AS1	1.198357634	-0.089488332	5.774011558	1.02E-08	1.10E-07	9.416435744	2.294782839
AC007880.1	1.198175921	-1.484254283	4.581470331	5.18E-06	2.48E-05	3.466644687	2.294493821
CACNB4	1.197339345	2.286900238	3.701115744	0.000225885	0.000677277	-0.079317059	2.293163697
CTD-2528L19.6	1.196565822	-0.455812235	5.34190214	1.13E-07	8.84E-07	7.110515091	2.291934512
GS1-465N13.1	1.196345835	0.353752832	4.18487766	3.09E-05	0.000118429	1.778996686	2.291585057
CYP2C8	1.19620027	-1.196920197	4.438609533	1.00E-05	4.41E-05	2.841776002	2.291353852
SH2D1A	1.194395552	3.167590701	4.220832266	2.65E-05	0.000103447	1.925924772	2.288489309
RP11-148O21.4	1.193804152	-3.921746645	3.972846694	7.59E-05	0.000260576	0.937280157	2.287551387
RP11-150L8.4	1.193209649	-1.832648818	5.073136586	4.63E-07	3.04E-06	5.761864451	2.286608931
TBXAS1	1.193049413	5.748881746	6.617867063	5.82E-11	1.25E-09	14.4006705	2.286354978
BIK	1.192834718	0.796388942	4.116471436	4.15E-05	0.000153487	1.502811324	2.28601476

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
RP11-1220K2.2	1.191825267	0.112267912	3.674927123	0.000250032	0.000740613	-0.173592829	2.284415798
AC004158.2	1.190102288	1.500531208	8.160360299	9.56E-16	9.20E-14	25.09955253	2.281689199
RP11-686D22.7	1.189674447	0.032048805	5.211249847	2.26E-07	1.62E-06	6.446661776	2.28101265
RP1-111C20.3	1.189506689	-3.815721374	3.649170606	0.000276129	0.000808989	-0.265676953	2.280747425
RAD51B	1.189247304	3.481348046	7.907085467	6.68E-15	5.19E-13	23.20598795	2.280337403
NFE2	1.187255479	5.776503098	6.079820558	1.69E-09	2.28E-08	11.14980506	2.277191278
FCN1	1.18672779	4.963091181	3.200457134	0.001413549	0.003412516	-1.768332974	2.276358511
PRRT3-AS1	1.186627079	-1.706815343	5.824056977	7.64E-09	8.59E-08	9.694377202	2.27619961
EMB	1.185922336	7.627939816	6.747671374	2.49E-11	6.07E-10	15.2228989	2.275087978
RP11-385D13.1	1.185103152	1.48286253	6.645225489	4.87E-11	1.07E-09	14.57275048	2.273796516
OLFM12A	1.18397191	1.116207853	3.002813218	0.002738781	0.006103162	-2.368987588	2.272014292
CEACAM3	1.183825312	0.149776648	3.088500162	0.002064941	0.004760198	-2.113191823	2.271783435
MT-CO1	1.183465905	12.47587895	6.353979238	3.13E-10	5.42E-09	12.77443701	2.271217555
CRLF2	1.183137514	0.133718575	3.032884051	0.002482235	0.005599791	-2.280024099	2.270700631
B3GNTL1	1.182882777	5.328164468	7.459303353	1.83E-13	9.09E-12	19.98816789	2.270299728
PRDM8	1.182118562	4.384712627	4.762514279	2.18E-06	1.17E-05	4.285798425	2.269097439
CDKN2C	1.181393507	4.576169039	5.359702649	1.03E-07	8.16E-07	7.202164979	2.267957346
LPL	1.180655059	0.127672912	2.933168275	0.003428653	0.007446175	-2.571683694	2.266796781
DDX11-AS1	1.180571817	-1.035781746	5.555123547	3.52E-08	3.24E-07	8.227254704	2.266665993
FGF17	1.180363714	-0.636758188	4.730719506	2.55E-06	1.34E-05	4.139738153	2.266339059
MMACHC	1.178713702	1.416541356	6.211433953	7.57E-10	1.15E-08	11.92143592	2.263748526
PIWIL4	1.177909904	6.306504557	6.08977133	1.59E-09	2.17E-08	11.20760811	2.26248763
CTGLF9P	1.177490693	-1.857659075	6.168617667	9.84E-10	1.44E-08	11.6687254	2.261830303
NAPSA	1.176314634	-2.019849421	5.517129683	4.35E-08	3.89E-07	8.025244917	2.259987251
AD000685.1	1.17622274	-1.069780158	3.141626871	0.001727492	0.004071266	-1.951048403	2.259843303
ZDHHC23	1.176126498	3.293768778	6.563979823	8.24E-11	1.69E-09	14.06363634	2.259692554
AC015849.16	1.175665817	-1.743310289	4.17828377	3.18E-05	0.000121431	1.752182649	2.258971106
SULF2	1.175039715	3.190545725	2.887892844	0.003958505	0.008460881	-2.700945318	2.257990967
RP11-403I13.8	1.174821891	1.807721088	4.458925141	9.13E-06	4.06E-05	2.929474872	2.257650072
hsa-mir-6723	1.173945443	5.124925082	4.879178694	1.23E-06	7.13E-06	4.829749109	2.25627895
OR2L13	1.173695325	-2.096273234	4.078175145	4.88E-05	0.000176447	1.350115825	2.255887816
AC015849.15	1.172559384	-1.341888148	4.196754691	2.94E-05	0.000113211	1.827397693	2.254112287
CD300A	1.172377642	3.978821345	6.000457401	2.71E-09	3.45E-08	10.69194386	2.253828345
RP5-991G20.1	1.172195935	-0.723294469	6.897844766	9.14E-12	2.64E-10	16.19237052	2.253544494
OR52K2	1.171012265	-2.107553048	3.420954979	0.00064822	0.001709463	-1.053976819	2.251696315
AC079781.9	1.169346919	-1.784786943	4.770831192	2.10E-06	1.13E-05	4.324159519	2.249098614
SLC44A1	1.169247374	5.791450606	4.716822874	2.72E-06	1.41E-05	4.076193352	2.248943433
ZKSCAN3	1.168895494	2.121063073	6.419137148	2.08E-10	3.81E-09	13.1703056	2.248394972
AREG	1.166833445	-0.426466427	3.408771627	0.000677533	0.001776081	-1.094662601	2.245183629
RP5-1043L13.1	1.165313634	2.000879647	4.920989669	1.00E-06	5.96E-06	5.027753651	2.24281968
MT-ND2	1.165267019	8.267175502	5.920053348	4.36E-09	5.25E-08	10.23380022	2.242747213
RP11-403I13.4	1.164697602	1.670763153	6.909535969	8.45E-12	2.48E-10	16.26866205	2.241862199
CEACAM1	1.16465154	2.432791771	3.248460314	0.00119737	0.002943584	-1.616782707	2.241790622
RP11-31E23.1	1.164204007	4.959413234	4.793018095	1.88E-06	1.03E-05	4.426808064	2.241095312
LAIR1	1.163872601	6.608798927	6.567393684	8.07E-11	1.67E-09	14.08491296	2.240580562
C19orf44	1.163686629	1.141652516	7.205819171	1.11E-12	4.15E-11	18.24122038	2.240291756
SIGLEC16	1.163682714	-3.135832928	3.328845733	0.000902588	0.00229498	-1.358050655	2.240285678
CYSLTR2	1.162944045	1.775346474	4.152576728	3.56E-05	0.000134134	1.648035395	2.23913893
RP11-477J21.6	1.162261745	-2.373049102	4.1305392	3.91E-05	0.000145541	1.559249337	2.238080215
RP11-474N24.2	1.161324691	-0.917341303	3.879384199	0.000111289	0.000364044	0.57972789	2.236627018
ABTB2	1.160775286	3.498476892	5.607040805	2.64E-08	2.51E-07	8.505404166	2.235775431
ZNF133	1.157416537	2.289669399	6.477850309	1.43E-10	2.72E-09	13.53021088	2.23057636
PMFBP1	1.157028595	1.986412862	7.518673896	1.19E-13	6.36E-12	20.4051754	2.229976636
TMEM51	1.153934536	-0.268045177	3.378369796	0.000756147	0.001959505	-1.195569201	2.225199268
MT-CO2	1.153346536	9.14697296	6.078335339	1.70E-09	2.30E-08	11.14118512	2.224292526
RP11-443B7.1	1.152999169	1.332219105	5.155168655	3.03E-07	2.10E-06	6.166491755	2.223757034
RP11-7O11.3	1.150506702	-1.104591653	6.021680597	2.39E-09	3.09E-08	10.81383549	2.219918485
CPT1B	1.149937823	5.311454772	7.889649611	7.63E-15	5.83E-13	23.07757303	2.219043307
C10orf112	1.14922983	-1.393013057	2.380646778	0.017461193	0.031458534	-4.01353368	2.217954592
CCDC113	1.148961821	-0.695005383	4.963297952	8.09E-07	4.93E-06	5.229753684	2.217542603
RECK	1.147058134	2.120240994	4.727860017	2.58E-06	1.35E-05	4.126648006	2.214618406

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
RP11-441O15.3	1.147045839	-1.475091186	6.544726397	9.33E-11	1.89E-09	13.94383145	2.214599533
GPR174	1.145984015	3.284579116	5.23424035	2.00E-07	1.46E-06	6.562348655	2.212970187
DOC2A	1.145635024	0.139369311	3.613936637	0.000315988	0.000910281	-0.390622301	2.212434929
RP11-578F21.5	1.144740664	1.915787147	3.330555187	0.000897123	0.002281966	-1.352481301	2.211063814
HOXA1	1.144257727	0.174168386	3.040522087	0.002420677	0.005478463	-2.257288558	2.210323792
PDE4DIP	1.144242343	5.784860904	6.773933644	2.09E-11	5.22E-10	15.39103259	2.210300224
NPR2	1.144033927	0.046253702	5.426975778	7.13E-08	5.97E-07	7.551138077	2.20998094
RP11-16M8.2	1.143939774	-1.604147155	3.462738834	0.00055642	0.001496583	-0.913363882	2.209836718
MTND2P28	1.143360622	4.415332905	4.760695271	2.20E-06	1.17E-05	4.277416928	2.208949784
AC091814.2	1.143260338	-1.659618285	2.268478525	0.023503929	0.040935768	-4.270058901	2.208796241
PLCB2	1.142979291	7.645395698	8.389232251	1.58E-16	1.88E-14	26.85570674	2.208365995
NT5DC3	1.142344036	4.966785766	4.777530214	2.03E-06	1.10E-05	4.355104784	2.20739381
ABCA9	1.141804246	-0.665990852	4.165457496	3.36E-05	0.000127654	1.700141731	2.206568058
ITGB8	1.141714293	0.114417789	3.173958464	0.001547796	0.003703071	-1.851044161	2.206430482
NSUN5P2	1.141256814	3.360551174	8.364366984	1.92E-16	2.22E-14	26.66285808	2.205730932
RP11-274M4.1	1.139756205	-3.492569825	3.615754753	0.000313806	0.000904593	-0.384203884	2.20343785
RP11-23J9.7	1.138319821	1.717764914	5.849944005	6.58E-09	7.49E-08	9.839029364	2.201245143
OR52K3P	1.137327126	-0.79459364	3.057246601	0.002290745	0.005211307	-2.207309885	2.199731023
CTD-2240H23.2	1.136406931	-1.012953907	4.538597302	6.32E-06	2.95E-05	3.277121719	2.198328415
SNX18P3	1.133896533	1.224452054	2.62741194	0.008730061	0.017064797	-3.406135216	2.194506484
AL354822.1	1.133765667	-2.509672061	3.180813781	0.001511981	0.0036253	-1.829711084	2.194307431
RP11-133N21.7	1.133006648	-2.255754645	4.73403617	2.50E-06	1.32E-05	4.154930641	2.193153283
RP11-90M11.1	1.132142642	0.417601206	6.533580727	1.00E-10	2.01E-09	13.87462524	2.191840234
AP003774.4	1.131999065	-0.32579794	4.196460519	2.94E-05	0.000113319	1.826197291	2.191622112
SLFN11	1.131983687	5.084495457	5.74561556	1.20E-08	1.27E-07	9.259730206	2.191598752
MACROD1	1.129227376	1.744473802	6.544670395	9.34E-11	1.89E-09	13.94348345	2.187415636
F3	1.129201547	0.497611181	3.065106864	0.002231917	0.005096873	-2.183727683	2.187376474
RP11-195E2.4	1.129157044	-2.37164198	3.03136679	0.002494633	0.005623257	-2.284533722	2.187309001
AC010745.4	1.129025952	-3.808683175	3.230701786	0.001273505	0.003106362	-1.673105617	2.187110258
AC116366.5	1.128933464	1.171351292	5.063702641	4.86E-07	3.18E-06	5.715726739	2.186970052
KDEL1	1.128839203	-0.335815167	3.290130917	0.001034951	0.002590464	-1.48343291	2.186827167
FAM185A	1.128791835	1.666183835	8.433235758	1.11E-16	1.39E-14	27.19820924	2.186755368
RP11-145E5.5	1.128684941	2.00480496	7.184887419	1.28E-12	4.67E-11	18.09940037	2.18659335
CTD-2275D10.2	1.128388455	-1.469306111	4.813971338	1.70E-06	9.42E-06	4.524167176	2.186144032
RP11-354E11.2	1.128123411	-0.460020805	2.45108253	0.014406104	0.026548469	-3.846192101	2.185742443
RASGEF1A	1.126776014	1.867005852	5.100014114	4.03E-07	2.70E-06	5.893759659	2.183702034
C1orf126	1.126311524	-3.236832023	3.654209708	0.00027083	0.000795354	-0.247710922	2.182999083
ST8SIA6	1.125849442	2.130046882	2.870890954	0.004175989	0.00887859	-2.748974859	2.1823
RP11-546B15.2	1.125016036	-2.286278237	5.488127764	5.10E-08	4.47E-07	7.871923971	2.181039708
ITGB3	1.124940946	4.042794504	3.460053015	0.000561935	0.001509031	-0.922452487	2.180926192
GOT2P3	1.124759532	-2.745537434	4.409851128	1.14E-05	4.96E-05	2.718290186	2.180651965
ANKRD24	1.124269965	-0.126364767	5.723403267	1.36E-08	1.42E-07	9.137655015	2.179912103
CLTCL1	1.124269581	4.307495091	3.4359143	0.000613844	0.001629701	-1.003826749	2.179911523
FAM81B	1.123518789	-1.59794819	3.664103805	0.000260703	0.000769393	-0.21236498	2.178777372
CTD-3083F21.1	1.119739483	-2.013208176	5.561669469	3.40E-08	3.14E-07	8.262190624	2.173077283
RP11-480I12.5	1.119277122	1.053920524	4.37502305	1.34E-05	5.68E-05	2.569776788	2.172380957
KIAA1383	1.118968523	1.883669042	5.621897336	2.42E-08	2.35E-07	8.585446793	2.171916325
LINC00482	1.118061715	-0.576249965	2.52451419	0.011733373	0.022148282	-3.6665994	2.170551593
FSTL3	1.117335423	3.17547598	5.504263012	4.67E-08	4.13E-07	7.957130212	2.169459153
AC093627.6	1.116747535	1.629936243	3.316788641	0.000942023	0.002384492	-1.397252841	2.168575294
EPDR1	1.1157225	2.809402797	5.495169283	4.91E-08	4.32E-07	7.909079475	2.167035068
AC025627.9	1.115637529	-2.389954758	3.018316096	0.002603637	0.005840934	-2.323231635	2.16690744
RP11-262D11.1	1.114545308	-2.831283133	3.833491791	0.000133904	0.000428588	0.407186851	2.165267559
NOV	1.11354916	-0.500297702	2.897440725	0.003840937	0.00824174	-2.673850651	2.163773007
RP11-354B3.1	1.112930371	-0.156103175	3.921837602	9.36E-05	0.000313236	0.741114653	2.162845138
ANKRD28	1.112711261	8.397749934	7.365076318	3.59E-13	1.62E-11	19.33243087	2.162516681
BCS1L	1.112381848	3.05627571	6.424502581	2.01E-10	3.70E-09	13.20306961	2.162022966
RP11-436I9.6	1.1121066	-1.111062472	5.068318637	4.75E-07	3.11E-06	5.738291555	2.161610518
AKT3	1.11155694	3.347063566	4.315339039	1.75E-05	7.18E-05	2.317912126	2.160787112
BMS1P1	1.109827286	0.037094473	3.871879069	0.000114722	0.000373927	0.551374534	2.158198086
RP5-1198O20.4	1.108764931	-1.417201506	4.059435381	5.29E-05	0.000189351	1.275899898	2.156609443

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
ATP10D	1.108389794	4.450023178	6.296347346	4.48E-10	7.43E-09	12.42740569	2.156048742
MLC1	1.108011362	5.575875857	4.342819043	1.54E-05	6.44E-05	2.43346262	2.155483265
KCNC4	1.106992533	2.946572193	6.278770986	5.00E-10	8.07E-09	12.3221518	2.153961604
MT-ND1	1.106675715	9.151932836	5.859062676	6.24E-09	7.14E-08	9.890125855	2.153488643
PRRG4	1.1058398	3.739318594	4.273826873	2.10E-05	8.44E-05	2.144699688	2.152241247
RP11-312P12.2	1.105739941	0.275617038	6.837935281	1.37E-11	3.67E-10	15.80327754	2.15209228
CXorf21	1.10564821	4.424390436	4.844185115	1.46E-06	8.29E-06	4.665269959	2.151955448
RP1-29C18.9	1.105243387	0.841771822	4.007295484	6.58E-05	0.000229642	1.071150417	2.15135169
ANXA1	1.104822101	8.201796543	4.162775275	3.40E-05	0.000128915	1.689278525	2.150723559
PBX3	1.103738539	5.152503002	3.439192494	0.000606541	0.001613136	-0.992808263	2.149108825
TESC	1.102500087	3.968489021	4.687184708	3.14E-06	1.60E-05	3.941265817	2.147264758
CCL23	1.101685158	-0.494439707	2.723240435	0.00657249	0.013249695	-3.154335372	2.146052185
UACA	1.100881847	0.259169571	3.366831315	0.000788143	0.002032808	-1.23363507	2.144857568
RP11-149I2.5	1.099763215	-0.772473527	5.309003864	1.35E-07	1.04E-06	6.941890339	2.14319514
ZNF221	1.098233122	0.897329382	5.45603111	6.08E-08	5.21E-07	7.703131082	2.140923316
DYNC2H1	1.097987364	2.523322767	4.702983582	2.91E-06	1.50E-05	4.01308868	2.140558649
SCFD2	1.097714574	4.529663176	8.056718067	2.13E-15	1.89E-13	24.31832804	2.140153942
AC004540.5	1.097409623	-0.086018895	3.215371835	0.001342801	0.003259672	-1.72148273	2.139701614
RP11-23J9.5	1.097095116	2.358576302	5.736823394	1.26E-08	1.33E-07	9.211356835	2.13923521
PFKP	1.097017619	6.324735434	6.9091041	8.48E-12	2.48E-10	16.26584178	2.139120299
KYNU	1.096930254	3.739150771	4.286851426	1.98E-05	8.03E-05	2.198871638	2.138990766
ITPRIPL2	1.096536709	4.328127947	3.954817965	8.18E-05	0.00027829	0.867666141	2.138407361
RP11-453F18__B.1	1.095664541	3.626192686	5.825473939	7.58E-09	8.53E-08	9.702279403	2.137114998
IQGAP2	1.095663923	6.540188462	6.8512015	1.25E-11	3.42E-10	15.88917042	2.137114082
NEDD4	1.094287987	4.170018079	4.675176765	3.32E-06	1.68E-05	3.886831711	2.135076831
LY86	1.094161347	3.086365215	3.291308829	0.001030672	0.002581391	-1.479639291	2.134889423
CTD-2349B8.1	1.094120073	0.818547206	4.086926737	4.71E-05	0.000170933	1.384888511	2.134828347
IL3RA	1.092528738	4.469184811	6.196085942	8.32E-10	1.25E-08	11.83066226	2.132474867
RP5-1061H20.4	1.091789846	-2.133516822	4.882480736	1.21E-06	7.03E-06	4.845327957	2.131382976
SORT1	1.091634347	5.556842216	3.633223926	0.000293546	0.000852826	-0.322372825	2.13115326
MCM3AP-AS1	1.090492072	1.339180628	5.737535059	1.26E-08	1.33E-07	9.21526974	2.129466557
U47924.11	1.090051714	-0.548233973	3.674397235	0.000250545	0.000741967	-0.175493627	2.128816672
SERPINA1	1.087512848	4.374844213	2.706640619	0.006907843	0.013837524	-3.198590045	2.125073658
CTB-133G6.1	1.086084514	5.307098699	6.531952468	1.01E-10	2.03E-09	13.86452407	2.12297078
RP11-44D15.3	1.08538611	-2.956253078	3.990505318	7.05E-05	0.000244183	1.005762745	2.121943304
ARNTL2	1.084838124	2.552919286	4.896455969	1.13E-06	6.64E-06	4.911373731	2.12113747
AC110373.1	1.084329185	-2.055640837	5.175356717	2.73E-07	1.91E-06	6.267015668	2.120389328
RP11-398F12.1	1.08418086	0.591146342	2.753356953	0.00600129	0.012221913	-3.073364705	2.12017134
RNASE2	1.083971054	5.222239917	2.892191417	0.003905175	0.008360478	-2.688757855	2.119863034
MT-ATP6	1.082596183	8.430068709	5.614343876	2.53E-08	2.43E-07	8.544726075	2.117843791
AC018755.11	1.080491542	-2.337552136	4.381704531	1.30E-05	5.53E-05	2.598179932	2.114756479
OR51R1P	1.080326764	-2.014967424	3.035641952	0.002459845	0.005557993	-2.271821349	2.114514955
FAM47E	1.079641446	1.940414009	5.410826552	7.78E-08	6.41E-07	7.46699032	2.113510744
EAF2	1.075745385	4.884566636	7.361911895	3.67E-13	1.65E-11	19.31053938	2.107810815
DNAH6	1.075552121	0.135180647	3.727222016	0.000204008	0.000619977	0.015311003	2.107528472
VCAN	1.073552551	6.471737803	2.380724057	0.017457551	0.031457718	-4.013352724	2.104609468
C16orf74	1.073508356	1.211750615	4.264185753	2.19E-05	8.76E-05	2.104702638	2.104544997
AOX1	1.07292439	-0.364118666	3.356392895	0.00081817	0.002101734	-1.267962038	2.103693303
RP11-430I15.2	1.072473322	-2.759149681	3.75243654	0.000184784	0.000568047	0.107321291	2.103035673
HOXA-AS3	1.072333192	-1.638427635	2.211908429	0.027189289	0.046500427	-4.394784006	2.102831413
DMXL2	1.070640867	7.519268031	4.708405541	2.83E-06	1.46E-05	4.037790674	2.100366175
RP4-728D4.2	1.069934781	1.573556605	6.561180324	8.39E-11	1.72E-09	14.04619629	2.099338462
PRAM1	1.069424107	5.931795863	5.351052193	1.08E-07	8.48E-07	7.157590158	2.098595486
J01415.25	1.068262104	5.588170104	5.594267188	2.83E-08	2.67E-07	8.436742981	2.096905876
CMTM2	1.068032673	-0.926875563	3.855018069	0.000122804	0.000397054	0.487870497	2.096572432
PLD1	1.067385226	5.408270807	5.182000852	2.63E-07	1.86E-06	6.300180875	2.095631752
RP11-1280I22.1	1.06712265	2.942509004	4.077590925	4.90E-05	0.000176819	1.347797112	2.095250373
RP11-439E19.3	1.067055894	2.385030908	4.630435671	4.11E-06	2.03E-05	3.68519117	2.095153425
TCN1	1.06691861	2.41853697	2.644343004	0.008307968	0.016323006	-3.362294038	2.094954064
ADHFE1	1.066798646	2.70204928	8.017878246	2.87E-15	2.49E-13	24.02783118	2.094779869
RTEL1P1	1.066063984	2.487043897	7.311464707	5.26E-13	2.26E-11	18.96268953	2.093713419

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
CPNE3	1.065927192	5.72830255	5.337574793	1.16E-07	9.00E-07	7.088278367	2.093514909
KLRG1	1.065676741	1.53628437	6.27348418	5.17E-10	8.29E-09	12.29054572	2.093151507
OR2L3	1.065626817	-3.234900135	3.668958733	0.000255864	0.000756245	-0.194987048	2.093079075
SLC12A7	1.063138157	5.579567637	5.441039224	6.60E-08	5.57E-07	7.624610499	2.089471611
AC079807.4	1.062537695	-2.749947046	3.810721384	0.000146672	0.000463961	0.322317949	2.088602136
PIGM	1.062067406	3.566968614	7.068797616	2.86E-12	9.46E-11	17.31963419	2.087921405
NETO2	1.060881872	2.753846738	4.102797225	4.40E-05	0.000161095	1.448130766	2.086206361
MIR155HG	1.059060332	2.000526953	5.32089687	1.26E-07	9.76E-07	7.00273584	2.08357399
LCT	1.058335599	-0.614819272	4.203459294	2.85E-05	0.000110437	1.854778673	2.082527575
C11orf63	1.058101961	0.26528581	3.686756253	0.000238839	0.000711361	-0.131090175	2.082190347
AC007556.3	1.057228704	-2.798107632	4.012804389	6.43E-05	0.000225104	1.092662295	2.080930387
WDR35	1.056941589	3.470740306	4.299001844	1.88E-05	7.66E-05	2.249551265	2.080516297
LGALS3BP	1.05683034	4.96593925	4.066001037	5.14E-05	0.000184715	1.301864489	2.080355871
hsa-mir-4763	1.056724584	2.184016806	3.536568922	0.000423192	0.001179246	-0.660832113	2.080203377
KLHL31	1.056522337	-2.145970242	4.488322769	7.98E-06	3.61E-05	3.057061276	2.079911779
BAALC	1.056263932	3.150998731	2.356928302	0.018610999	0.033301939	-4.068798141	2.079539274
PRTN3	1.056210205	5.059372463	2.3015325	0.021558086	0.037918396	-4.195738591	2.079461832
LINC00671	1.05473821	-1.160389422	2.73755997	0.006295061	0.012749114	-3.1159456	2.077341221
KCNE1	1.054366736	2.147727512	3.221380231	0.001315236	0.003199057	-1.702548753	2.076806403
AC145212.1	1.053739846	-2.307967988	3.008466819	0.00268877	0.006005965	-2.352328092	2.07590417
ACTA2	1.053084884	2.687933281	4.973466874	7.69E-07	4.71E-06	5.278550737	2.074961955
S100A8	1.052774423	7.59079487	2.722844506	0.006580315	0.013262827	-3.155394013	2.074515481
GATA2	1.051812782	5.58110967	3.262073757	0.001141882	0.002821944	-1.573401528	2.073133155
FAM91A2	1.049637022	-0.056358652	4.020098815	6.24E-05	0.00021905	1.121190572	2.070008974
CIDEB	1.049579035	4.193035124	4.813653512	1.70E-06	9.43E-06	4.522687366	2.069925774
OR2T8	1.048089159	-2.311085883	3.909697979	9.84E-05	0.000327053	0.694791745	2.067789258
SNX24	1.047948015	0.235622836	4.765261906	2.15E-06	1.15E-05	4.298464548	2.06758697
RP11-403I13.6	1.047750159	0.096783434	7.612837089	5.99E-14	3.48E-12	21.07262759	2.067303434
EGFL7	1.047667945	4.042021044	2.748325996	0.006093478	0.012391747	-3.086951892	2.067185627
RP5-1086D14.3	1.04719968	-2.211583699	4.583242525	5.13E-06	2.46E-05	3.474515609	2.066514777
LINC00638	1.047168578	0.72919741	5.16710468	2.85E-07	1.99E-06	6.225880612	2.066470227
RP11-287A8.6	1.046554502	-0.622547666	4.017961319	6.29E-05	0.000220897	1.112825689	2.065590832
ZNF283	1.046519182	1.778878119	6.521239647	1.09E-10	2.14E-09	13.7981231	2.065540262
SLC16A7	1.046382599	3.183121438	5.381314237	9.13E-08	7.36E-07	7.313824543	2.065344722
CLEC5A	1.046330591	3.17992419	2.486135047	0.013069652	0.024340252	-3.761117103	2.065270269
BCL2L15	1.045882786	1.551804389	5.078928273	4.49E-07	2.97E-06	5.790229781	2.06462932
TOP1MT	1.045868385	5.201477703	5.13661134	3.34E-07	2.29E-06	6.074417091	2.064608711
CPXM1	1.04477797	5.443007455	3.49155377	0.000500342	0.001364354	-0.815422982	2.063048832
PION	1.04353193	4.288582331	5.791925875	9.21E-09	1.01E-07	9.515669791	2.061267768
ZBTB46	1.043391197	3.532416858	3.655570112	0.000269416	0.000791791	-0.242856498	2.061066704
MRC1	1.043269395	-3.361844669	2.997182231	0.002789436	0.006203429	-2.385549839	2.060892702
TMEM177	1.043024771	0.179015022	5.025291579	5.91E-07	3.77E-06	5.528717178	2.060543287
ZRANB2-AS2	1.041887956	-2.011781889	4.515098753	7.05E-06	3.24E-05	3.173971197	2.058920259
XRCC2	1.040340286	2.944685168	5.96208279	3.41E-09	4.23E-08	10.4725652	2.056712709
FAM157B	1.039359312	0.68800271	3.629038532	0.000298285	0.000864526	-0.33721323	2.055314704
DOC2B	1.038649263	-0.870785704	2.681768579	0.007439165	0.014767533	-3.264398919	2.054303391
RP11-23J9.4	1.03853734	3.685998922	5.57774944	3.10E-08	2.90E-07	8.348174702	2.054144026
AC011330.5	1.037037016	-1.677590702	5.588782652	2.92E-08	2.75E-07	8.407307526	2.05200894
TMEM182	1.036733877	0.806238159	5.012274774	6.32E-07	3.99E-06	5.465650617	2.051577817
RP11-655M14.13	1.036133051	-2.059906214	3.979583571	7.38E-05	0.00025425	0.963371952	2.050723594
RP11-436I9.3	1.034998153	-2.144699698	4.589944624	4.97E-06	2.40E-05	3.504308346	2.049111023
FABP7P1	1.03445905	-2.816643524	3.838615004	0.000131179	0.00042144	0.426349592	2.048345458
GRB10	1.032527935	5.227797616	3.914419615	9.65E-05	0.00032146	0.712792206	2.045605487
PRSS36	1.03237575	0.611050401	4.918263945	1.01E-06	6.03E-06	5.014796292	2.045389714
HAL	1.031820798	4.264700032	3.774628555	0.000169289	0.000525805	0.188801523	2.044603078
CCDC61	1.031537749	2.221338699	5.994405129	2.81E-09	3.56E-08	10.65725725	2.044201977
PLEKHA8P1	1.03125404	1.414740881	5.99691299	2.77E-09	3.52E-08	10.67162628	2.043800021
RP11-277L2.2	1.030900378	1.015717384	5.894341174	5.08E-09	5.98E-08	10.08850991	2.043299065
SPAG8	1.030325673	0.693012608	6.549245683	9.07E-11	1.84E-09	13.97192374	2.042485268
RP11-100L22.2	1.030321577	-0.207476921	3.969027593	7.71E-05	0.000263989	0.922507892	2.04247947
WDFY4	1.029813242	7.249410353	5.877567623	5.60E-09	6.49E-08	9.994047163	2.041759927

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
EPHA1	1.029731472	1.357188588	5.112966183	3.77E-07	2.54E-06	5.957555498	2.041644206
DPYD-IT1	1.029614981	-2.137247123	4.360136856	1.43E-05	6.02E-05	2.506645392	2.041479359
FAR2	1.028699691	4.41743944	5.449625115	6.30E-08	5.35E-07	7.66955448	2.040184593
AC093726.6	1.028531891	2.066261504	7.591969424	6.98E-14	3.97E-12	20.92407168	2.039947313
RPGRIP1L	1.028224659	1.472462984	6.196353187	8.31E-10	1.25E-08	11.83224106	2.039512937
TUBG2	1.028148194	1.536034143	5.484585995	5.20E-08	4.54E-07	7.853252339	2.039404844
ZNF785	1.02814151	3.848810581	7.774059301	1.82E-14	1.26E-12	22.23261244	2.039395394
RP11-356N1.2	1.02736933	-1.988686993	3.894227475	0.000104782	0.000345757	0.635960758	2.038304133
CPNE2	1.027295724	4.860122143	6.565968099	8.14E-11	1.68E-09	14.07602687	2.038200141
HAPLN4	1.026278111	-1.380005952	3.238460772	0.001239706	0.003034426	-1.648534446	2.036762992
JPH1	1.025509755	-3.973541413	3.275463765	0.001089635	0.002708094	-1.530559008	2.035678535
CEBPA-AS1	1.02505985	-0.259723709	3.461346505	0.000559273	0.001502822	-0.918076277	2.035043805
FAM70B	1.02502635	-2.349265161	3.833101903	0.000134113	0.00042905	0.405729541	2.034996552
DLEU7-AS1	1.025001088	-2.749246226	3.417843285	0.000655592	0.001726827	-1.06438168	2.034960918
DZIP1L	1.024951321	0.830109222	3.569216251	0.000374361	0.001057214	-0.547505676	2.034890722
RP11-367B6.2	1.023822874	0.938833023	3.678344984	0.000246748	0.000731933	-0.16132595	2.033299694
ZNF573	1.023599492	2.139520719	6.205635964	7.85E-10	1.19E-08	11.88712003	2.032984889
MLKL	1.023416968	4.730273014	6.872503665	1.08E-11	3.05E-10	16.0274103	2.032727701
MITF	1.02326184	1.654164821	3.699633999	0.00022719	0.00068057	-0.084668556	2.03250914
RP11-553K23.2	1.02266946	-2.421637258	4.591378866	4.94E-06	2.39E-05	3.51068939	2.03167475
SPATS2L	1.022360799	1.34198146	3.410725021	0.000672751	0.001765659	-1.088148875	2.031240125
C8orf73	1.021032161	4.375529182	6.442296575	1.79E-10	3.33E-09	13.31190938	2.029370332
FAM161A	1.020691493	1.29549495	6.725434304	2.88E-11	6.89E-10	15.08100234	2.028891187
METAP1D	1.020631877	3.085693363	6.810351952	1.64E-11	4.29E-10	15.62517447	2.028807349
USP41	1.020243055	-2.647148898	3.968327184	7.73E-05	0.000264525	0.919800211	2.028260638
CCDC171	1.019111616	3.750987426	5.249207449	1.85E-07	1.37E-06	6.637921707	2.02667059
AP1G2	1.019037429	6.33415794	8.896256015	2.50E-18	4.22E-16	30.89603156	2.026566377
OLR1	1.018951497	1.18071548	2.431203669	0.015216487	0.027846779	-3.893908959	2.02644567
PRKXP1	1.018584119	0.322452971	4.328786061	1.64E-05	6.81E-05	2.374367055	2.025929708
SNX32	1.01798067	-0.029659174	5.024218585	5.95E-07	3.79E-06	5.52351262	2.025082482
MMP19	1.016819753	0.738023102	3.292302283	0.001027075	0.002574017	-1.476438712	2.023453581
ACPP	1.016807054	3.269467	3.698131845	0.000228521	0.000684245	-0.090091633	2.02343577
B4GALT6	1.015880354	3.898973982	4.168047067	3.33E-05	0.00012648	1.710636112	2.022136454
C1QTNF4	1.015725974	3.914504701	2.890188973	0.003929936	0.008405283	-2.694437473	2.021920081
TMEM67	1.015594253	2.423063455	6.085129425	1.63E-09	2.22E-08	11.1806328	2.021735484
MAMSTR	1.014934469	-1.477181416	5.276477722	1.60E-07	1.20E-06	6.776142651	2.020811101
ELP4	1.014612756	2.917522083	7.519354849	1.18E-13	6.35E-12	20.40997547	2.020360521
ETS2	1.014001304	7.515552803	6.509765179	1.17E-10	2.28E-09	13.72711253	2.01950442
ARHGAP24	1.013799324	2.460753675	3.6887035	0.000237042	0.000707077	-0.124080869	2.019221706
RP3-497J21.1	1.01353805	-0.727895835	4.371365398	1.36E-05	5.76E-05	2.554245707	2.018856055
FUT4	1.01320577	7.94365619	5.331259862	1.20E-07	9.28E-07	7.055858733	2.018391128
C9orf174	1.013182273	3.937950166	5.37696886	9.35E-08	7.51E-07	7.291339371	2.018358255
MPV17L	1.013114927	-0.247481816	2.32520762	0.020252124	0.035893388	-4.141852189	2.018264038
CEP290	1.013017069	3.798057471	7.243478467	8.49E-13	3.36E-11	18.49731407	2.018127145
DEGS2	1.012585191	0.306056188	4.364614431	1.40E-05	5.92E-05	2.525612697	2.017523098
RP1-29C18.8	1.012408306	2.403666061	4.790296978	1.91E-06	1.04E-05	4.414194202	2.01727575
LRRC6	1.012073824	1.226833138	6.81588359	1.58E-11	4.19E-10	15.66083904	2.016808109
SAMD10	1.010867946	2.133584367	6.881919906	1.02E-11	2.89E-10	16.08864154	2.015123062
RP5-857K21.10	1.010771921	5.548026793	4.503347749	7.44E-06	3.40E-05	3.122581378	2.014988941
CACNA1F	1.01071846	1.438729446	5.273561479	1.63E-07	1.22E-06	6.761329101	2.014914274
SEL1L3	1.009965276	5.031228864	3.876444924	0.000112622	0.000367932	0.568617358	2.013862629
CLEC4C	1.009607095	-1.927865171	2.71887354	0.006659259	0.013393204	-3.166003252	2.013362704
CUBN	1.008790462	3.352301265	6.175041048	9.46E-10	1.39E-08	11.70653405	2.012223368
STK36	1.008609643	3.866158449	7.044198684	3.38E-12	1.10E-10	17.15588414	2.011971184
RP11-761I4.3	1.008376215	-0.624248606	5.308119801	1.35E-07	1.04E-06	6.937372552	2.011645674
KIAA0825	1.008034239	2.891223534	5.775875931	1.01E-08	1.09E-07	9.426749768	2.01116889
C11orf35	1.008025294	0.85723098	5.80130269	8.72E-09	9.63E-08	9.567726265	2.011156421
DPY19L2P2	1.007749822	3.266757784	5.289237685	1.50E-07	1.13E-06	6.841050266	2.010772442
TNNI2	1.00753908	0.1410922	3.705611186	0.000221967	0.000667152	-0.063068472	2.01047874
RPL7AP64	1.007392213	-3.964476401	3.267686623	0.001119705	0.002773741	-1.555463591	2.010274082
RP11-556O5.3	1.006952521	1.312077249	5.969578996	3.26E-09	4.08E-08	10.51531606	2.009661502

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
GPR56	1.006262828	3.686233692	3.318868059	0.00093511	0.002368817	-1.3905018	2.008700995
SERPINB10	1.005785578	3.591274567	2.742008904	0.006211041	0.01259965	-3.103977887	2.008036618
KIF16B	1.005671265	3.669723189	3.939398419	8.71E-05	0.000294582	0.808370621	2.007877516
ACOT11	1.005219348	4.261056219	4.215297804	2.71E-05	0.000105596	1.903229175	2.007248657
WDR52	1.005150147	4.120325576	6.700570336	3.39E-11	7.84E-10	14.92285137	2.007152379
CSF2RA	1.005082182	4.518700779	4.917422223	1.02E-06	6.05E-06	5.010796356	2.007057825
BTBD8	1.004573676	0.12310706	5.510554027	4.51E-08	4.00E-07	7.990415405	2.006350522
CNTN1	1.004475695	-3.910056876	2.765991869	0.00577529	0.011802704	-3.039133418	2.006214266
STON1	1.003891454	2.070822856	6.484136027	1.38E-10	2.64E-09	13.56892067	2.005401983
MIPEPP3	1.003505437	-1.46133781	5.753196386	1.15E-08	1.23E-07	9.301494708	2.004865477
SMYD3	1.002852424	4.897904826	5.999547736	2.73E-09	3.46E-08	10.68672834	2.003958211
IL1RAP	1.001598627	5.868520759	5.69125323	1.64E-08	1.67E-07	8.961749596	2.002217396
APAF1	1.000783342	6.631973631	9.371103727	4.31E-20	1.25E-17	34.86352305	2.001086237
PSRC1	1.00053038	1.311444356	4.062070058	5.23E-05	0.000187395	1.286314132	2.000735398
BCAT1	1.000317643	4.490910899	2.837220478	0.004639024	0.009732971	-2.843268598	2.000440395
RP11-258C19.5	1.00022896	1.783483271	6.661623283	4.38E-11	9.76E-10	14.67620214	2.000317431
HESX1	1.000096348	0.381007647	4.926233493	9.74E-07	5.82E-06	5.052700637	2.000133571
RP11-769O8.3	1.000072726	1.243305185	3.47246597	0.000536865	0.00144941	-0.880390351	2.000100823
C12orf23	-1.000227537	4.247781817	-6.369672463	2.84E-10	4.99E-09	12.86944047	-2.000315458
ASB9	-1.000390309	-0.786559808	-3.061968159	0.002255239	0.005143195	-2.193151492	-2.000541156
RP11-292F22.6	-1.000605892	-1.749183879	-3.804316378	0.000150466	0.000474445	0.298534056	-2.000840121
ZNF608	-1.000632987	2.970372476	-3.124773501	0.0018286	0.00427888	-2.002778982	-2.000877699
MIR1182	-1.000877168	-2.461416634	-4.042609403	5.68E-05	0.000201306	1.209545303	-2.001216382
SDS	-1.001049432	-2.60860906	-2.987075463	0.002882509	0.006381636	-2.415199941	-2.001455352
DCAF4L1	-1.001095117	0.795142884	-4.512085076	7.15E-06	3.28E-05	3.160779425	-2.001518731
RP11-498D10.6	-1.001857939	1.08762137	-6.092297586	1.56E-09	2.14E-08	11.22229688	-2.002577309
DGAT2	-1.001936518	1.266725281	-3.456793779	0.000568697	0.001524518	-0.933472234	-2.002686387
LSR	-1.001942037	-0.257706858	-4.427978296	1.05E-05	4.60E-05	2.796036473	-2.002694048
SLC7A8	-1.001954186	0.352158869	-3.703608213	0.000223705	0.000671659	-0.070310507	-2.002710912
WWC2	-1.002442788	1.256606721	-2.701210616	0.007020837	0.014043097	-3.213008389	-2.003389292
IGLC3	-1.002456644	0.703277527	-3.443177691	0.000597772	0.001592392	-0.979399612	-2.003408533
PAX5	-1.002537985	3.968603901	-3.573696887	0.000368086	0.001041881	-0.531873062	-2.00352149
B9D1	-1.003197522	-0.222483128	-5.648953677	2.08E-08	2.05E-07	8.731729989	-2.004437623
IRAK2	-1.004106558	3.676560995	-3.916672989	9.56E-05	0.000318892	0.721390257	-2.005701008
RP11-47L3.1	-1.004121901	-2.79393793	-3.456773934	0.000568738	0.001524518	-0.933539301	-2.005722339
COL4A2	-1.004166909	-1.639311142	-2.89279623	0.003897724	0.008346343	-2.687041637	-2.005784912
ETV5	-1.004322584	3.604029971	-4.511889678	7.16E-06	3.28E-05	3.159924405	-2.00600136
KRT73	-1.004474564	-1.51276901	-3.291552977	0.001029787	0.002579829	-1.478852815	-2.006212692
CD79A	-1.005830984	3.198274659	-4.683822404	3.19E-06	1.62E-05	3.926010417	-2.008099818
CHADL	-1.006387777	0.853014068	-5.391848639	8.63E-08	7.01E-07	7.368406114	-2.008874972
LINC00402	-1.006582651	-1.613158895	-3.806042003	0.000149435	0.000471716	0.304938039	-2.009146342
HTRA4	-1.006595324	-1.305284715	-4.288023175	1.97E-05	8.00E-05	2.203752995	-2.009163991
RP11-195F19.30	-1.006689883	-1.905245282	-3.891768874	0.000105835	0.000348762	0.626632086	-2.009295683
DUSP16	-1.006766152	2.778952967	-4.890533264	1.16E-06	6.81E-06	4.883361522	-2.009401908
C6orf132	-1.006872291	-1.527865832	-3.541906352	0.000414821	0.001159524	-0.642374145	-2.009549746
IGLV2-11	-1.008654142	-1.28312666	-3.542679637	0.000413621	0.001156497	-0.639697707	-2.012033244
IGLV3-1	-1.008920848	-0.499882309	-3.507457868	0.000471696	0.001296999	-0.761026067	-2.012405235
PSAT1	-1.009588963	-0.328010832	-3.23457364	0.001256533	0.003069521	-1.660851442	-2.0133374
RP11-83J16.3	-1.009899764	-1.080885026	-4.14052804	3.75E-05	0.000140238	1.59943633	-2.013771182
IGKV1-12	-1.010989179	-2.696776144	-3.93316377	8.94E-05	0.00030108	0.784459226	-2.015292405
IL28RA	-1.011069854	0.421740558	-3.635907286	0.000290545	0.000845073	-0.312849502	-2.015405103
RP11-54O7.3	-1.011967119	-2.685829359	-3.022911003	0.002564771	0.005764232	-2.309625525	-2.016658947
CECR2	-1.012212216	-1.98387477	-2.833992973	0.004685768	0.009816426	-2.852249667	-2.017001583
RP11-125B21.2	-1.012516423	-2.509155926	-2.92848043	0.003480347	0.007544321	-2.585159308	-2.017426933
C15orf62	-1.012649792	-0.206401192	-4.904441434	1.09E-06	6.40E-06	4.949193252	-2.017613442
KLF9	-1.013247952	5.567541049	-4.22343477	2.62E-05	0.000102462	1.936607002	-2.018450144
HBD	-1.013364971	4.902416826	-2.529722472	0.011561715	0.021864241	-3.653662561	-2.018613869
TMEM121	-1.013422699	-1.100090539	-4.047196016	5.57E-05	0.000197926	1.227606515	-2.018694643
SLC16A9	-1.013707792	-0.743188123	-2.709955068	0.006839679	0.013712725	-3.189775123	-2.019093601
CA3	-1.014014831	-0.961668837	-3.099404049	0.001991101	0.004613704	-2.080134362	-2.019523357
PLVAP	-1.014446714	0.225614923	-3.544004716	0.000411573	0.0011516	-0.635110117	-2.020128007

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
GS1-115G20.2	-1.014651458	-2.530680247	-3.480962833	0.00052031	0.001411196	-0.851513327	-2.02041472
XCL1	-1.016235744	-2.481396297	-4.243893644	2.39E-05	9.47E-05	2.020803945	-2.022634644
KCNA6	-1.016320484	-1.811000247	-4.157984722	3.47E-05	0.0001313	1.66989325	-2.022753452
RP1-68D18.3	-1.016395464	-2.332295558	-3.743207725	0.000191614	0.000586102	0.07357439	-2.022858581
MST1R	-1.016732511	-1.056473521	-3.818160471	0.00014238	0.000451613	0.349990544	-2.023331224
GDF9	-1.017623053	0.501710617	-4.710114218	2.81E-06	1.45E-05	4.045580912	-2.024580563
RP11-320M2.1	-1.018200328	-0.225722206	-6.343961741	3.33E-10	5.73E-09	12.71390651	-2.025390835
ITLN1	-1.01843473	-2.247863639	-2.646126766	0.008264581	0.016245852	-3.357659002	-2.025719937
RP3-322G13.7	-1.018648524	-0.053215501	-4.230732211	2.53E-05	9.96E-05	1.966593984	-2.026020151
RP11-445P17.8	-1.018658347	-1.576488	-4.492985087	7.81E-06	3.54E-05	3.077369927	-2.026033947
RP11-1074O12.1	-1.020555446	-2.41836524	-4.014628962	6.38E-05	0.000223634	1.099793433	-2.028699871
IGLV3-21	-1.020659545	-0.174650313	-3.349303882	0.000839163	0.002149226	-1.291214947	-2.028846259
CXCR6	-1.021163945	-1.653795986	-4.021803935	6.19E-05	0.000217688	1.127866485	-2.029555714
OLFM2	-1.021453918	-2.416805133	-3.923912656	9.28E-05	0.000310799	0.749046685	-2.029963684
TRBV26OR9-2	-1.021463416	-4.392219207	-3.211948958	0.001358742	0.003292292	-1.732253591	-2.029977048
RP11-57I17.3	-1.023724796	-3.408036681	-3.293693468	0.001022059	0.002562746	-1.471955182	-2.03316147
DBN1	-1.023740068	4.071210516	-4.183991884	3.11E-05	0.000118801	1.775392302	-2.033182992
RHBDD2	-1.023884041	4.75288968	-7.562137579	8.68E-14	4.78E-12	20.71233335	-2.033385903
RAB6B	-1.024124841	1.805977199	-2.874191436	0.00413294	0.008796544	-2.739672982	-2.033725323
AOC3	-1.024286898	1.208233128	-4.969999029	7.82E-07	4.78E-06	5.261899084	-2.033953783
ATOH8	-1.024826339	-2.130809682	-3.456393239	0.000569533	0.001526441	-0.934825794	-2.034714446
AP001171.1	-1.025287596	-0.665759181	-2.304936471	0.02136591	0.037634069	-4.188024487	-2.035365086
CTD-2165H16.4	-1.026698915	-1.625750958	-4.569380358	5.48E-06	2.61E-05	3.413026953	-2.03735716
RP11-356I2.2	-1.026941811	-1.676392613	-4.824468289	1.61E-06	9.03E-06	4.573093831	-2.037700204
RBMS3	-1.027226326	-1.41844379	-3.300918494	0.000996367	0.002505972	-1.448640451	-2.0381021
CTTN	-1.027539048	1.343578636	-3.509572483	0.000468005	0.001288466	-0.753775249	-2.038543932
RP11-392A22.2	-1.027620682	-1.147424279	-3.935325251	8.86E-05	0.000299035	0.792744869	-2.038659284
C7orf23	-1.027735528	3.631655496	-7.13125059	1.86E-12	6.43E-11	17.73769604	-2.038821578
RP11-982M15.2	-1.027771832	-2.164507449	-4.677422457	3.29E-06	1.67E-05	3.897001652	-2.038872885
CABYR	-1.029218183	-0.80305302	-3.708557872	0.000219434	0.000660544	-0.052407378	-2.040917949
BTBD19	-1.029565989	3.302585512	-5.90930672	4.65E-09	5.55E-08	10.17300299	-2.041410035
ATP2C2	-1.02961349	-0.616956582	-2.371850876	0.017880106	0.032132408	-4.034092138	-2.04147725
RP11-438N16.1	-1.029760488	-2.538233991	-3.523029659	0.000445139	0.001231704	-0.707531891	-2.041685268
GJC1	-1.030261953	-1.229036044	-3.54396375	0.000411636	0.0011516	-0.635251974	-2.04239506
SLC5A5	-1.031144781	-1.321449336	-4.050145013	5.50E-05	0.000195733	1.23922958	-2.043645244
AC132217.4	-1.03149614	-2.605043107	-3.156634245	0.001641818	0.003894949	-1.904754268	-2.044143021
TRHDE	-1.031497003	-4.164221239	-2.765480165	0.005784291	0.011816584	-3.040522756	-2.044144244
A3GALT2P	-1.031867328	-2.26526189	-4.535296673	6.42E-06	2.99E-05	3.262602038	-2.044669022
CTSE	-1.032553551	-0.231837394	-2.540588397	0.011210756	0.021271967	-3.626587946	-2.045641808
GDF7	-1.032786639	-2.158851879	-3.796294788	0.000155347	0.000488036	0.26880212	-2.045972337
IGHV2-26	-1.033449313	-2.941571132	-3.781295644	0.000164878	0.000514129	0.213371711	-2.04691233
GAL	-1.034431897	-2.832765134	-3.400813194	0.000697342	0.001822439	-1.121162817	-2.048306907
RP11-214C8.2	-1.034937882	-0.559978871	-4.749946928	2.32E-06	1.23E-05	4.227954037	-2.049025419
IGHV3-9	-1.035248312	-1.3006014	-2.726173015	0.006514793	0.013149576	-3.146489469	-2.049466363
FAM69A	-1.035742348	-0.211204434	-4.232728312	2.51E-05	9.89E-05	1.974805161	-2.050168303
IGHV3-48	-1.03631335	-1.45767905	-3.888033135	0.000107453	0.000353092	0.612468514	-2.050979895
SLC25A4	-1.036907014	-0.846135388	-4.463322291	8.95E-06	4.00E-05	2.948507314	-2.051824041
FBXL2	-1.037080198	-2.222576861	-3.511516673	0.000464635	0.001280082	-0.747105039	-2.05207036
RP11-1090M7.2	-1.037740379	-4.203844112	-3.050762847	0.002340338	0.00531371	-2.226717557	-2.053009608
C2	-1.038418261	2.485075968	-2.997787221	0.002783953	0.006192631	-2.383771865	-2.053974487
KLRC3	-1.038686574	-1.189921889	-3.747802874	0.000188184	0.000576864	0.090367312	-2.054356521
RP11-439L18.2	-1.038834523	-1.519313244	-4.538626243	6.32E-06	2.95E-05	3.277249079	-2.054567207
RP11-309L24.4	-1.039076146	-0.329755398	-5.70946117	1.48E-08	1.52E-07	9.061258142	-2.054911335
CCDC96	-1.039136328	-0.778612656	-5.774411269	1.02E-08	1.10E-07	9.41864675	-2.054997057
IGLV1-40	-1.039187119	-0.835217884	-3.621645034	0.000306832	0.000886175	-0.36338806	-2.055069405
C5orf4	-1.039621085	3.019495813	-3.437139981	0.000611104	0.001623082	-0.99970826	-2.055687669
CTD-2165H16.3	-1.039622234	-1.65015533	-3.507768589	0.000471152	0.001296003	-0.7599609	-2.055689306
IGLV3-25	-1.040022716	-1.347152157	-3.456987333	0.000568293	0.001523794	-0.932818098	-2.05626003
MIR181A2HG	-1.040505974	-0.795546757	-4.77341752	2.07E-06	1.11E-05	4.336101805	-2.056948929
EFCAB10	-1.040826975	-1.570827633	-4.464518219	8.90E-06	3.98E-05	2.95368684	-2.057406653
NLRP6	-1.041608667	0.839205581	-4.316617933	1.74E-05	7.15E-05	2.323274045	-2.058521714

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
JAZF1	-1.041664102	3.509974392	-4.105701722	4.35E-05	0.000159441	1.459730565	-2.058600814
CACNA1B	-1.042588894	-2.826549814	-3.843503865	0.000128628	0.000413649	0.444658963	-2.059920835
RP11-637A17.1	-1.043020829	-1.961619181	-3.886806547	0.000107989	0.0003545	0.607820945	-2.060537656
PCDHGB8P	-1.04320517	-0.769498052	-3.363522158	0.000797549	0.002054114	-1.244528593	-2.06080096
AC105020.1	-1.043420824	-1.792757052	-4.083957408	4.77E-05	0.000172811	1.373082393	-2.061109031
UCHL1	-1.044668663	-3.67356589	-3.490311408	0.000502646	0.001369881	-0.819662075	-2.062892529
BCL2L11	-1.045132789	4.739436674	-4.971857739	7.75E-07	4.74E-06	5.270822732	-2.063556285
NPTXR	-1.045439327	-0.064218233	-4.166248217	3.35E-05	0.000127293	1.7033455	-2.063994787
CHRM3	-1.045759934	-2.743204573	-3.515564201	0.000457692	0.001262894	-0.733207041	-2.064453515
XXbac-BPG116M5.17	-1.045905576	1.89692487	-2.730332877	0.006433732	0.012999263	-3.135345785	-2.064661934
AC093510.1	-1.046027141	0.674150118	-6.075106164	1.73E-09	2.34E-08	11.12245033	-2.064835916
RP11-67M1.1	-1.046064044	-2.914094764	-3.167584426	0.001581796	0.003772761	-1.87083905	-2.064888734
DIP2C	-1.046266289	-0.29527867	-4.682271421	3.21E-06	1.63E-05	3.918976855	-2.065178221
ARMC4	-1.046442603	-3.263712704	-3.536490674	0.000423316	0.001179258	-0.66110251	-2.065430625
TRAV13-1	-1.046489379	-2.895840957	-4.143754323	3.69E-05	0.000138573	1.612436336	-2.065497593
RP11-46C24.8	-1.046545234	-1.675395478	-2.930565604	0.003457266	0.007497585	-2.579167912	-2.065577562
RP11-873E20.1	-1.046837312	0.40423857	-5.396455046	8.41E-08	6.85E-07	7.392304848	-2.065995787
ASAP3	-1.047180987	-1.639746948	-4.201883699	2.87E-05	0.000111021	1.848340294	-2.066488001
MOCOS	-1.047215589	-2.210403745	-3.713625926	0.00021514	0.000649374	-0.034051888	-2.066537565
SERPINE2	-1.047912282	1.616616006	-3.433198495	0.000619956	0.001643716	-1.012947182	-2.06753576
RP11-203J24.8	-1.049069355	-2.956301869	-3.504116148	0.000477585	0.001310816	-0.772475809	-2.069194634
GNA14	-1.049630938	-0.999349692	-3.045454637	0.002381671	0.005398856	-2.242576374	-2.070000245
IGLV4-69	-1.050438913	-2.400654342	-3.752693121	0.000184598	0.000567723	0.108260684	-2.071159863
SLC35F3	-1.050658658	-3.42795738	-3.27356709	0.001096899	0.002722373	-1.536638038	-2.071475357
TMEM163	-1.051216326	-0.561461638	-2.973009449	0.003016771	0.006643093	-2.456301403	-2.072276233
GAL3ST4	-1.051451005	1.782718397	-5.28106557	1.56E-07	1.18E-06	6.799463102	-2.072613352
C14orf176	-1.051486836	-1.35801441	-5.360984195	1.02E-07	8.11E-07	7.208774429	-2.072664828
SETBP1	-1.051953641	2.771634425	-4.257177093	2.26E-05	9.00E-05	2.075681323	-2.073335578
INMT	-1.052033049	-2.755675832	-4.332214486	1.62E-05	6.72E-05	2.388787784	-2.073449699
AL590710.1	-1.0523733	1.376847457	-4.411870866	1.13E-05	4.92E-05	2.726937515	-2.073938768
RP11-624J12.1	-1.052603265	-3.889921263	-3.634844691	0.00029173	0.000848144	-0.316621504	-2.074269379
MYO15A	-1.053343155	1.744867857	-5.790638759	9.27E-09	1.02E-07	9.508530374	-2.075333447
CTA-250D10.23	-1.053399528	0.965299434	-4.769695158	2.11E-06	1.13E-05	4.318915879	-2.075414542
C19orf26	-1.053549033	-2.287411703	-3.538151735	0.000420693	0.001173941	-0.655361244	-2.075629626
SMO	-1.053622836	0.979979073	-4.036849116	5.81E-05	0.000205936	1.186890498	-2.075735811
FAM84A	-1.054148227	-4.130721812	-2.654744438	0.008057817	0.01586629	-3.335222882	-2.076491876
CATSPERB	-1.054319802	-1.308678634	-3.951147343	8.30E-05	0.000281994	0.853530466	-2.076738841
SASH1	-1.05457577	-1.067910125	-2.511707705	0.012165122	0.022856419	-3.698297403	-2.077107335
IDI2-AS1	-1.055076641	-0.531933597	-4.894953085	1.14E-06	6.69E-06	4.90426258	-2.077828586
AL132709.5	-1.055541122	-4.250917178	-3.131612771	0.00178693	0.004196806	-1.981819098	-2.078497658
PPARG	-1.055585145	-1.274441328	-2.862204377	0.004291246	0.009094233	-2.773406305	-2.078561083
TRBV2	-1.055701371	-2.970195804	-4.220269505	2.65E-05	0.00010366	1.923615698	-2.078728542
TEAD2	-1.056520171	-2.761404121	-3.311941923	0.000958321	0.002421396	-1.412972128	-2.079908657
GULP1	-1.056585115	-4.09268685	-3.129180755	0.001801646	0.004226338	-1.989277496	-2.080002288
AC017116.8	-1.056799022	-0.416911694	-4.723136651	2.64E-06	1.38E-05	4.105042019	-2.080310711
LTBP2	-1.056905561	0.867502434	-5.59596554	2.80E-08	2.66E-07	8.445863525	-2.080464341
PCDHGA4	-1.056911547	1.483849008	-3.585102297	0.000352556	0.00100296	-0.491994093	-2.080472973
RP11-548B3.3	-1.057447472	-4.439749065	-3.736456042	0.00019676	0.000600353	0.048936813	-2.081245961
SERINC4	-1.058116905	-0.937642615	-6.071126792	1.78E-09	2.39E-08	11.09937585	-2.082211916
LDHC	-1.05821873	-2.077212787	-4.004917831	6.64E-05	0.000231683	1.061874705	-2.082358882
TSHZ2	-1.05844258	-0.696465819	-3.960544405	7.99E-05	0.000272314	0.889744262	-2.082682009
RP1-224A6.3	-1.058489728	-1.017597425	-5.537932939	3.87E-08	3.52E-07	8.135692069	-2.082750072
TPRSS13	-1.058754323	0.239016189	-5.198495777	2.42E-07	1.72E-06	6.382692361	-2.083132091
CCDC144NL	-1.058954157	-3.863689013	-2.50296296	0.01246798	0.023371982	-3.719850485	-2.083420654
HYAL1	-1.05943064	-0.646696597	-5.470967509	5.60E-08	4.85E-07	7.781563812	-2.084108865
STARD10	-1.059990553	2.316706394	-6.63852224	5.09E-11	1.11E-09	14.53052787	-2.08491787
PCBP4	-1.060149305	1.569622733	-6.081134211	1.67E-09	2.27E-08	11.1574309	-2.085147303
SIRPG	-1.060184077	-0.336496622	-4.263584012	2.19E-05	8.77E-05	2.102209153	-2.08519756
FAM209B	-1.061105387	0.799430608	-5.630056546	2.32E-08	2.26E-07	8.629490955	-2.0865296
NEO1	-1.061166834	1.878009794	-2.629704067	0.008671817	0.016965215	-3.40021626	-2.086618471
RP3-496C20.1	-1.0616398	0.450611532	-5.611900202	2.56E-08	2.46E-07	8.531563247	-2.08730265

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
FAM71E2	-1.061705459	-3.832852115	-3.511778077	0.000464183	0.001279196	-0.746207929	-2.087397648
SAMD4A	-1.062031309	1.05343632	-4.900315727	1.11E-06	6.53E-06	4.929646376	-2.087869165
RPS20P2	-1.062629153	-2.1697961	-4.465722019	8.85E-06	3.96E-05	2.958901808	-2.088734544
AC011484.1	-1.062744655	-3.024924114	-2.956030891	0.003186432	0.006975425	-2.505659407	-2.088901775
GNB3	-1.06300814	-1.412418932	-3.902326924	0.000101385	0.000335389	0.666732969	-2.089283314
RFPL1-AS1	-1.063249138	-1.125655986	-2.863166681	0.004278337	0.009069798	-2.770703367	-2.089632351
PDGFRB	-1.06327929	1.221969004	-3.50773979	0.000471202	0.001296003	-0.760059629	-2.089676024
TLX2	-1.063337191	-1.626281347	-4.605064716	4.63E-06	2.25E-05	3.571674929	-2.089759894
RP11-313J2.1	-1.063363658	-4.142071739	-3.475177892	0.000531528	0.001437079	-0.871181236	-2.089798232
CES1P1	-1.063389425	-4.10306846	-3.255905542	0.001166722	0.002876484	-1.593079444	-2.089835556
IGLV6-57	-1.063588188	-1.590020073	-3.602849721	0.000329606	0.000944894	-0.429693848	-2.090123498
SDC4	-1.064259309	2.613448648	-3.409607124	0.000675484	0.001772359	-1.091877027	-2.091096019
EBI3	-1.064932867	-1.981190214	-3.677891389	0.000247182	0.000732998	-0.162954566	-2.092072527
PCDHGB1	-1.065173799	1.393185554	-3.499477901	0.000485872	0.001329861	-0.788350185	-2.092421934
RP11-478C6.1	-1.065500346	-1.825030732	-5.29332325	1.46E-07	1.11E-06	6.861864174	-2.092895598
RGMA	-1.065871842	-2.512780397	-2.82432215	0.0048284	0.010082038	-2.879100087	-2.093434591
RP11-66D17.5	-1.066301487	-0.58868678	-5.693078907	1.62E-08	1.65E-07	8.971713676	-2.094058124
CTH	-1.066414066	1.198465703	-5.07612131	4.56E-07	3.00E-06	5.776478575	-2.094221538
NWD1	-1.066610075	-3.491565739	-3.658071826	0.000266834	0.000785372	-0.233924864	-2.094506084
ARHGAP21	-1.066634803	4.582556084	-3.564635396	0.000380879	0.001073623	-0.563468162	-2.094541985
PCDHB2	-1.066780611	-4.50120626	-3.19121395	0.001459105	0.003511322	-1.797260606	-2.094753683
MIR645	-1.066999471	-0.683831025	-6.331791341	3.60E-10	6.11E-09	12.64048596	-2.095071487
SOX5	-1.067045401	-1.047424419	-2.999244918	0.002770782	0.006167507	-2.379486466	-2.095138186
KRT72	-1.06727665	-1.525358164	-3.397544562	0.000705633	0.001841423	-1.132029254	-2.095474042
RHOV	-1.067524389	-2.97007078	-3.730104605	0.000201719	0.000613966	0.025799289	-2.095833906
S1PR2	-1.067865437	0.814906562	-5.193130676	2.49E-07	1.76E-06	6.355827564	-2.096329413
LINCO0346	-1.067979348	-2.684729681	-3.537040218	0.000422446	0.001177667	-0.659203365	-2.09649494
SGK1	-1.067985115	4.79430231	-4.340677501	1.56E-05	6.49E-05	2.424432259	-2.096503321
CACFD1	-1.068276902	1.5397397	-6.883827455	1.00E-11	2.86E-10	16.10105512	-2.096927383
KCNK13	-1.068357382	-3.151101874	-3.454833333	0.0005728	0.001533947	-0.940095779	-2.097044363
NRTN	-1.068531856	-3.094175034	-3.980492955	7.35E-05	0.000253338	0.966897262	-2.097297986
RP11-314J18.5	-1.068780164	-1.171164569	-6.086109592	1.62E-09	2.21E-08	11.18632721	-2.097658992
RP11-536C5.7	-1.06916316	1.022476789	-5.701357746	1.55E-08	1.58E-07	9.016935125	-2.098215937
CTD-3247F14.2	-1.07007264	0.212131233	-3.409442309	0.000675888	0.001772711	-1.092426578	-2.099539076
RORC	-1.070287114	-1.50565792	-4.432400893	1.03E-05	4.52E-05	2.815051303	-2.099851222
CFB	-1.07043618	1.971303693	-2.872861033	0.004150244	0.008828611	-2.743423773	-2.100068199
GCSAML-AS1	-1.070479387	-4.657700787	-3.523903515	0.000443691	0.001228387	-0.704523055	-2.100131095
TEAD1	-1.071163617	-2.913770082	-3.311958729	0.000958264	0.002421396	-1.412917661	-2.101127364
RP11-61L14.6	-1.071429241	-1.414512636	-5.454160958	6.14E-08	5.25E-07	7.693324955	-2.101514252
RP11-296E7.1	-1.071479239	-1.883690414	-3.836868824	0.000132102	0.000423853	0.419815429	-2.101587084
TRGV4	-1.071539256	-1.986307485	-4.1471935	3.64E-05	0.000136881	1.626304961	-2.101674513
RARB	-1.072366483	-3.687951412	-3.185350671	0.001488701	0.003575566	-1.815567909	-2.102879937
IGKV1-27	-1.072589977	-2.412510818	-4.035398116	5.85E-05	0.000207007	1.181188748	-2.103205729
CXorf59	-1.072684383	-3.593016977	-3.490979173	0.000501406	0.00136688	-0.817383761	-2.103343362
TMC5	-1.073615618	-2.774606604	-3.083511979	0.002099551	0.004832079	-2.12827644	-2.104701472
PCDHB10	-1.074046128	-4.19338086	-3.653457622	0.000271615	0.000797422	-0.250393886	-2.105329623
SLC47A1	-1.074173827	-1.496182204	-2.809932154	0.005047922	0.010480619	-2.918885695	-2.105515982
BAI3	-1.074627441	-4.132143994	-3.285105981	0.001053393	0.002630615	-1.499601435	-2.106178106
RP11-473M20.16	-1.0748889501	-1.197202077	-3.99766446	6.85E-05	0.000237985	1.033610783	-2.10656072
SCN1B	-1.075036384	0.993053788	-5.032809734	5.69E-07	3.65E-06	5.565213672	-2.106775203
SAMD3	-1.075050507	0.226830381	-4.434806607	1.02E-05	4.48E-05	2.825402277	-2.106795827
LINC00472	-1.075582622	-3.855052415	-3.470939808	0.00053989	0.00145709	-0.885569786	-2.107573028
AKR1E2	-1.075779961	1.954097393	-4.316687917	1.73E-05	7.15E-05	2.323567505	-2.107861333
CXorf22	-1.07578134	-3.03523083	-3.293188358	0.001023877	0.002566329	-1.473583272	-2.107863348
BAIAP3	-1.076286989	2.417308611	-4.098263012	4.49E-05	0.000163745	1.430038189	-2.10860226
SYT1	-1.076370806	-3.550987225	-3.635766458	0.000290701	0.000845404	-0.313349475	-2.108724768
CTC-493L21.1	-1.076785901	-4.490710739	-3.162527672	0.001609258	0.003830143	-1.886515289	-2.109331582
SEZ6L2	-1.077024141	-1.729374024	-4.05383453	5.41E-05	0.000193205	1.253782852	-2.109679936
ERRFI1	-1.077224437	-0.260099488	-3.890826703	0.00010624	0.000349619	0.62305872	-2.109972853
MAPK7	-1.077545498	4.062399274	-6.379939993	2.66E-10	4.71E-09	12.93171512	-2.110442464
RP11-217B1.2	-1.077582286	-2.0990032	-3.479471162	0.000523181	0.001418009	-0.856587836	-2.11049628

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
HIST2H3DP1	-1.077725692	-3.907917755	-3.517524764	0.000454364	0.001254764	-0.726469433	-2.110706077
SH3RF3	-1.07796359	2.848657735	-4.687111806	3.14E-06	1.60E-05	3.940934935	-2.111054156
IGKV1-8	-1.078598342	-2.806860781	-4.254268816	2.29E-05	9.11E-05	2.063652319	-2.111983175
FAM189A1	-1.078831926	-3.883260463	-3.095415015	0.002017828	0.004667411	-2.092241236	-2.112325151
AC079305.10	-1.079084375	-0.378166127	-6.224511688	6.99E-10	1.08E-08	11.99894674	-2.112694807
ARHGEF11	-1.079456636	4.051647465	-3.011322892	0.002663825	0.005956314	-2.343900381	-2.113240019
IGHV3-15	-1.07986417	-0.343342607	-3.802988695	0.000151264	0.000476498	0.293608799	-2.113837053
MASP2	-1.079966672	-2.206764592	-4.817646817	1.67E-06	9.28E-06	4.541287123	-2.113987245
GALNT14	-1.08045061	1.533989396	-3.27416067	0.001094621	0.002718087	-1.534735925	-2.11469648
RP3-400B16.1	-1.080787673	-0.816784526	-4.953460975	8.50E-07	5.15E-06	5.182640116	-2.115190603
GJA1	-1.080849001	-2.126206402	-2.382366854	0.017380287	0.031347129	-4.009504589	-2.115280521
NFASC	-1.080897391	-2.83872821	-3.432740842	0.000620991	0.001646019	-1.014483416	-2.115351471
GLT25D2	-1.081063265	-0.201548369	-4.162025926	3.41E-05	0.000129283	1.686244815	-2.115594699
CoTC_ribozyme	-1.081291522	-3.701662566	-3.603132033	0.000329253	0.000944017	-0.428700403	-2.115929446
AC068946.1	-1.081370472	-1.844603203	-5.577326686	3.11E-08	2.90E-07	8.345911129	-2.11604524
DLGAP3	-1.081732845	-0.521385837	-4.391207533	1.24E-05	5.32E-05	2.638649358	-2.116576811
RGS6	-1.082299202	-1.125854535	-3.176462599	0.001534624	0.003672448	-1.843256768	-2.117407875
SULT4A1	-1.082925693	-3.956843175	-2.813379538	0.004994523	0.010387134	-2.90937256	-2.118327561
SERPINH1	-1.083407044	2.791600412	-4.643285563	3.87E-06	1.93E-05	3.742913148	-2.119034453
C2orf27A	-1.084137969	-3.164586032	-3.558517406	0.00038975	0.001096436	-0.584755773	-2.120108309
RP3-486I3.7	-1.084649855	0.738456356	-5.236797749	1.98E-07	1.45E-06	6.575247184	-2.120860683
COL27A1	-1.085750091	-0.831344372	-3.438967726	0.000607039	0.001614025	-0.99356407	-2.122478723
C12orf61	-1.085949159	1.3390733	-6.636090329	5.17E-11	1.13E-09	14.51521936	-2.122771609
TMEM52B	-1.085992765	-0.260709798	-3.138854303	0.001743763	0.00410471	-1.959577422	-2.122835772
GCNT2	-1.086337363	2.906705561	-4.595131409	4.85E-06	2.35E-05	3.527393769	-2.123342887
P4HA2	-1.086439077	1.413489679	-5.232071026	2.03E-07	1.48E-06	6.551412108	-2.123492594
STAG3	-1.08649862	2.391570028	-5.874246401	5.71E-09	6.60E-08	9.975373058	-2.123580237
CNTF	-1.086685794	2.455748972	-6.297752622	4.44E-10	7.38E-09	12.43583277	-2.123855767
CAND2	-1.087528758	0.104812089	-3.679962874	0.000245208	0.000727912	-0.155515386	-2.125097094
RP11-24B21.1	-1.087693182	4.938550977	-5.725816116	1.35E-08	1.41E-07	9.150894168	-2.125339305
NDRG2	-1.088090387	2.13742961	-4.449970992	9.51E-06	4.21E-05	2.890773909	-2.125924537
TBX15	-1.088453658	-2.227339723	-4.461607135	9.02E-06	4.02E-05	2.941081356	-2.126459912
PAPPA	-1.088611217	-2.893978042	-2.372723375	0.017838162	0.032067401	-4.032056229	-2.12669216
ASMT	-1.088720218	-1.687640941	-4.405292138	1.17E-05	5.05E-05	2.698785295	-2.126852845
EPHB3	-1.089007699	-0.285801837	-2.867493549	0.004220728	0.008960982	-2.758538912	-2.127276699
DHRS3	-1.08914563	4.218699121	-4.053911435	5.41E-05	0.000193178	1.25408634	-2.127480089
KCNQ4	-1.089242607	-0.802961066	-5.156697124	3.01E-07	2.08E-06	6.174089524	-2.127623102
ST14	-1.089330786	2.315923206	-3.593034109	0.00034212	0.000976652	-0.464187482	-2.127753149
CELSR3	-1.089654807	3.684730722	-5.592997702	2.85E-08	2.69E-07	8.429927245	-2.128231083
RP11-2C24.6	-1.09004464	1.100659187	-5.237101597	1.97E-07	1.45E-06	6.57678007	-2.128806234
RP11-385D13.3	-1.091127447	-0.195913121	-4.516776616	7.00E-06	3.22E-05	3.181319378	-2.130404598
C1orf191	-1.091290584	-1.334974212	-5.233489331	2.01E-07	1.47E-06	6.558561941	-2.130645513
NCKAP1	-1.091491734	0.33916577	-3.335542188	0.000881354	0.002246913	-1.336217801	-2.130942602
EPHA3	-1.091513819	-4.231912139	-3.023575355	0.002559195	0.005754324	-2.307656612	-2.130975222
LAMA2	-1.091625773	-1.823417517	-5.231382771	2.03E-07	1.48E-06	6.547943202	-2.131140594
SCARA5	-1.092487724	-4.252397153	-3.295108141	0.00101698	0.00255131	-1.467394053	-2.132414244
BTG3	-1.092593212	4.71911956	-5.275375745	1.61E-07	1.21E-06	6.770544061	-2.132570169
FAM102A	-1.092890657	5.152080694	-5.500104256	4.77E-08	4.21E-07	7.935146289	-2.133009894
RP11-108P20.1	-1.093270495	1.587932921	-5.460079347	5.95E-08	5.10E-07	7.724368849	-2.133571554
IGSF11	-1.093456143	-3.138696341	-3.682118229	0.00024317	0.000722624	-0.147770682	-2.133846121
SPP1	-1.094745846	-1.621569728	-3.144969845	0.001708058	0.0040298	-1.940754867	-2.135754535
CHDH	-1.094784721	-1.934345034	-3.776283429	0.000168183	0.000522866	0.194896286	-2.135812086
TRAV8-2	-1.095222285	-2.987215014	-4.327547866	1.65E-05	6.84E-05	2.369161634	-2.136459969
ZMYND10	-1.09561755	1.110343873	-5.890921918	5.18E-09	6.07E-08	10.06923344	-2.13704539
PPFIA4	-1.095772849	1.860008696	-4.728342099	2.57E-06	1.35E-05	4.128854345	-2.137275445
LTBP3	-1.095913014	5.221022635	-6.228583632	6.82E-10	1.06E-08	12.02311173	-2.137483101
MLNR	-1.096246568	-1.315554834	-3.645008837	0.000280578	0.000819833	-0.280496795	-2.137977348
TAL1	-1.096780754	4.681788968	-3.149593995	0.001681509	0.003974294	-1.92649869	-2.138769123
RASSF6	-1.096893824	-3.064099482	-3.805817653	0.000149569	0.000472062	0.304105291	-2.138936754
AC005336.2	-1.097414541	-0.753884457	-2.224916348	0.026300314	0.045136593	-4.366380456	-2.139708908
PDZK1IP1	-1.098116388	-0.437327578	-3.028218238	0.002520541	0.005675821	-2.293884818	-2.140750093

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
HOXC4	-1.098382468	-3.654574953	-3.703490769	0.000223807	0.000671761	-0.070735023	-2.141144953
CTD-2302E22.4	-1.099171515	-0.182910683	-6.154937906	1.07E-09	1.55E-08	11.58832679	-2.142316321
GPR15	-1.099832582	-2.389834232	-4.009640296	6.51E-05	0.000227892	1.080303237	-2.143298191
CYP2E1	-1.100241703	0.393560795	-4.278274727	2.06E-05	8.30E-05	2.163181391	-2.143906076
AC006296.3	-1.100339104	-1.722479503	-4.984745405	7.26E-07	4.48E-06	5.332783739	-2.144050823
KRT8P31	-1.100794333	-3.227958746	-3.416777854	0.000658134	0.001732829	-1.067942136	-2.144727466
SLC26A11	-1.101219703	2.567121319	-4.35121606	1.49E-05	6.23E-05	2.468912236	-2.145359918
RP11-723O4.6	-1.101436237	-1.95919754	-3.584622919	0.000353196	0.001004347	-0.493672731	-2.145681939
IGLC2	-1.101692529	0.510931885	-3.142166701	0.00172434	0.004065295	-1.949386911	-2.146063149
AF131215.2	-1.102171099	-0.949088636	-3.945186	8.51E-05	0.0002884	0.830600288	-2.146775158
GPC1	-1.102732102	0.19729843	-3.183992056	0.001495638	0.003590914	-1.819805289	-2.14761011
FAM198A	-1.102816531	-2.450029735	-3.837553752	0.000131739	0.000422964	0.42237807	-2.147735796
MORN3	-1.103128779	-0.935496128	-5.572991245	3.19E-08	2.97E-07	8.322706967	-2.148200689
ARNT2	-1.103777118	-3.076405119	-3.35029697	0.000836192	0.002143287	-1.287960383	-2.149166296
KREMEN1	-1.10394187	1.777836268	-3.629484434	0.000297777	0.000863434	-0.335632963	-2.149411739
IGHV4-34	-1.104018622	-0.122960799	-4.518992206	6.92E-06	3.19E-05	3.191026547	-2.149526092
AL132709.8	-1.104062742	-4.260943099	-3.227870837	0.001286047	0.003133857	-1.682056288	-2.149591828
AC003102.3	-1.104096794	-1.17838141	-3.533182008	0.000428585	0.001192085	-0.672530692	-2.149642566
RP11-388M20.1	-1.104762383	2.303589222	-5.941138271	3.85E-09	4.72E-08	10.35338439	-2.150634535
ARHGEF10	-1.105115428	1.899338727	-4.206858606	2.81E-05	0.000109052	1.868677286	-2.151160885
AP000783.2	-1.10528011	-1.437929981	-3.776816677	0.000167829	0.000522011	0.196860749	-2.151406452
AQP8	-1.105621422	-1.525169484	-5.770487035	1.04E-08	1.12E-07	9.396946021	-2.151915491
AC005336.1	-1.106284566	-0.621542644	-2.234965795	0.025630854	0.044152844	-4.34432396	-2.152904859
LPHN1	-1.106645137	2.914945112	-4.71213154	2.78E-06	1.44E-05	4.054781818	-2.153442999
HECTD2	-1.106781292	0.661946231	-4.111663253	4.24E-05	0.000156198	1.483564248	-2.153646242
DBNDD2	-1.10687018	1.9069768	-6.811184627	1.63E-11	4.29E-10	15.63054135	-2.153778938
CYP1A1	-1.107051578	-3.753782419	-3.638632537	0.000287526	0.000837861	-0.303170493	-2.15404976
TMEM136	-1.107239255	-1.072503061	-2.447934577	0.014531838	0.026760178	-3.853773988	-2.154329994
AC068282.3	-1.107306358	0.083451447	-4.798134939	1.83E-06	1.01E-05	4.450545972	-2.154430199
AMOTL2	-1.107480922	-2.415170228	-3.097646822	0.002002835	0.004636535	-2.085469503	-2.154690898
GLYCTK-AS1	-1.108556514	-3.592995254	-3.537267562	0.000422087	0.001176999	-0.658417614	-2.156297914
RP5-862P8.2	-1.109277924	1.424723167	-3.930911224	9.02E-05	0.000303149	0.775829201	-2.157376425
MFSD2B	-1.109314026	2.708024934	-4.221473396	2.64E-05	0.000103199	1.928555763	-2.157430413
RSPO1	-1.110339373	-3.683624074	-3.339809973	0.000868063	0.00221605	-1.322280886	-2.158964278
IL31RA	-1.11056648	-0.150536666	-2.360677461	0.018424948	0.032998959	-4.06009896	-2.159304165
TRBV19	-1.110839992	-2.287205361	-4.263232625	2.20E-05	8.79E-05	2.100753239	-2.159713574
SLAMF7	-1.111312109	1.689942022	-4.583122063	5.14E-06	2.46E-05	3.473980502	-2.160420449
RP5-934G17.6	-1.111464169	-3.936015945	-3.539134846	0.000419148	0.001170292	-0.651961992	-2.16064817
FMNL3	-1.111659895	5.452718805	-6.86790305	1.12E-11	3.14E-10	15.99752157	-2.160941317
RP11-44F14.1	-1.112602968	-2.008788596	-3.145729337	0.001703672	0.004020893	-1.938414778	-2.162354362
LRRN3	-1.113284139	-1.219605443	-3.370712675	0.000777242	0.002007569	-1.220844538	-2.163375562
IL12RB2	-1.113419177	0.249131145	-2.697062295	0.007108277	0.014192092	-3.224004233	-2.163578066
LARP6	-1.113517221	-3.847667865	-3.460418379	0.000561182	0.001507541	-0.921216529	-2.163725106
LIPN	-1.114373828	-1.301151626	-3.274206217	0.001094446	0.002717996	-1.534589959	-2.165010209
SOX13	-1.114622458	-0.231629794	-3.702462833	0.000224704	0.000674218	-0.074450078	-2.165383353
PRKCG	-1.11485942	0.413230951	-4.614201244	4.44E-06	2.17E-05	3.612485183	-2.165739046
MIPOL1	-1.115445946	-3.790084187	-3.488540565	0.000505949	0.00137812	-0.825701869	-2.166619703
IGHV3-21	-1.115531694	-0.430476444	-4.013792962	6.40E-05	0.000224257	1.09652563	-2.166748482
ERVFRD-1	-1.115738005	-1.354643563	-2.750550959	0.006052551	0.012314866	-3.080945918	-2.167058358
RBP7	-1.115776872	-2.205126708	-3.443714692	0.0005966	0.001589912	-0.977591649	-2.16711674
SPEG	-1.115829596	-0.417526203	-4.484948837	8.10E-06	3.66E-05	3.042377372	-2.167195941
MRAS	-1.115930416	0.768311645	-2.944203699	0.003309715	0.007212488	-2.539877745	-2.167347396
CDH2	-1.117282025	-3.557388604	-2.882942532	0.00402074	0.008583672	-2.714958513	-2.169378856
S100A2	-1.117830249	-2.291120385	-4.821136208	1.64E-06	9.15E-06	4.557551853	-2.170203378
C1QTNF5	-1.117902303	-3.943072987	-3.535987074	0.000424114	0.001181314	-0.662842627	-2.170311769
RP11-677M14.7	-1.117948075	-1.330224448	-5.671448654	1.83E-08	1.84E-07	8.853854138	-2.170380626
TCF23	-1.118008791	-4.594680092	-3.281572988	0.001066541	0.002660417	-1.510954907	-2.17047197
MFRP	-1.118482306	-3.942519195	-3.537636454	0.000421505	0.00117604	-0.657142533	-2.17118447
UBE2E3	-1.118612032	4.477494661	-5.156628127	3.01E-07	2.08E-06	6.173746502	-2.171379709
TRIM72	-1.118859714	0.023676601	-3.918112171	9.51E-05	0.000317299	0.726884164	-2.171752523
ATP6VOE2-AS1	-1.119883593	-1.374569815	-4.781265145	1.99E-06	1.08E-05	4.372375853	-2.173294362

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
RASD1	-1.121130067	1.485202385	-3.732279048	0.000200008	0.000609134	0.03371621	-2.175172876
WWC1	-1.121438763	-2.176051895	-3.179486569	0.001518855	0.003638243	-1.833844761	-2.175638352
ELFN2	-1.122002314	-1.659150838	-3.699369214	0.000227424	0.000681168	-0.08562464	-2.176488375
EEF1A2	-1.122114326	-1.521478631	-2.809788367	0.00505016	0.010484051	-2.91928223	-2.176657365
GPBAR1	-1.122322821	1.182278727	-5.420947805	7.37E-08	6.13E-07	7.519700795	-2.176971953
GJC2	-1.122375786	0.485392519	-4.822376839	1.63E-06	9.11E-06	4.563337384	-2.177051877
MSANTD1	-1.122978838	1.037749783	-4.89885116	1.12E-06	6.57E-06	4.922711287	-2.177962083
PCDHGB2	-1.123419623	2.295227539	-3.695514858	0.000230857	0.000690715	-0.099534357	-2.178627615
MYO1A	-1.123432068	-0.470572218	-5.422218339	7.31E-08	6.09E-07	7.526324181	-2.178646409
CCDC173	-1.1234366	-1.161844667	-5.24640574	1.88E-07	1.38E-06	6.623759537	-2.178653252
RP11-548K23.11	-1.123545797	3.247477111	-4.773106713	2.07E-06	1.12E-05	4.334666338	-2.178818159
RP1-18D14.7	-1.123657692	-3.659682944	-3.576774323	0.000363834	0.001031177	-0.521125032	-2.178987155
AC104820.2	-1.124169347	-1.44569096	-4.739491733	2.44E-06	1.29E-05	4.179942859	-2.179760075
C17orf28	-1.125034502	-1.117981458	-4.749388127	2.33E-06	1.23E-05	4.225385413	-2.181067624
GPRC5B	-1.125111714	-2.271719639	-3.92757509	9.15E-05	0.00030659	0.763056517	-2.181184358
MTERFD3	-1.125605123	2.09646475	-5.884812294	5.37E-09	6.26E-08	10.03481573	-2.181930461
FBP1	-1.125935972	2.3215253	-3.171334387	0.001561711	0.003731383	-1.859198086	-2.182430894
RAMP1	-1.127623609	-0.885689321	-2.920562059	0.00356928	0.007721405	-2.607873197	-2.184985354
ISPD	-1.1280968	2.157074246	-6.006746718	2.61E-09	3.34E-08	10.7280236	-2.185702127
RP5-877J2.1	-1.128439213	1.873181832	-3.879614515	0.000111185	0.000363901	0.580598833	-2.186220948
CTD-2031P19.3	-1.129005885	-0.445776199	-5.740006755	1.24E-08	1.31E-07	9.228863255	-2.187079836
PRODH2	-1.129025682	-4.222227831	-3.757314911	0.000181268	0.000558526	0.125192642	-2.187109848
IGF1R	-1.129347638	5.821081681	-4.773210069	2.07E-06	1.12E-05	4.335143677	-2.187597984
UTS2	-1.129948989	-2.742905293	-3.014554299	0.002635856	0.005901805	-2.334355657	-2.18851002
RP11-796E2.4	-1.131088417	1.098298979	-5.549552665	3.63E-08	3.33E-07	8.197553145	-2.190239168
RP13-638C3.4	-1.131464769	0.314826088	-6.001772902	2.69E-09	3.43E-08	10.69948755	-2.190810605
PECR	-1.132998483	0.973771889	-4.989756896	7.08E-07	4.38E-06	5.356919138	-2.193140871
MPP2	-1.133028759	-0.340943438	-3.656187163	0.000268777	0.000790502	-0.240654054	-2.193186896
COL25A1	-1.133153327	-2.690387929	-3.860243026	0.000120244	0.000389927	0.507520605	-2.193376273
MAMLD1	-1.133632196	-0.283129863	-3.968774736	7.72E-05	0.000264173	0.92153033	-2.194104434
IGHV3-43	-1.133688228	-2.357601048	-3.938436193	8.75E-05	0.000295697	0.804677851	-2.19418965
LCK	-1.133719116	2.799055168	-4.843975479	1.47E-06	8.30E-06	4.66428802	-2.194236629
CD46P1	-1.133753305	-2.430978143	-3.767995214	0.000173787	0.000537661	0.164397565	-2.194288629
PTPRK	-1.133978164	-0.040537596	-4.090640943	4.63E-05	0.000168509	1.399667974	-2.194630658
AL713998.1	-1.134084724	-4.038649562	-3.470488829	0.000540787	0.001458912	-0.887099878	-2.194792763
TRAV3	-1.134154401	-2.894413512	-4.425949312	1.06E-05	4.64E-05	2.787319027	-2.194898766
CTD-2258A20.4	-1.134305631	-1.952124659	-4.656147173	3.64E-06	1.82E-05	3.800841365	-2.195128858
SLC30A10	-1.134579294	-3.420863898	-3.475629359	0.000530645	0.001434887	-0.869647467	-2.195545288
RP11-1299A16.3	-1.134609123	-1.670507512	-3.65437593	0.000270657	0.000794964	-0.247117874	-2.195590684
CECR6	-1.135209088	0.90606101	-3.156354177	0.00164338	0.003896795	-1.90562019	-2.196503942
AC013400.2	-1.135245165	1.916913448	-5.050036696	5.21E-07	3.38E-06	5.649036892	-2.196558869
RSPH4A	-1.135378287	-0.330056598	-5.108709662	3.86E-07	2.59E-06	5.936572896	-2.196761562
RAB15	-1.135893454	1.531783344	-4.977092175	7.55E-07	4.64E-06	5.295970291	-2.197546135
CXCL5	-1.13613626	-3.466651501	-3.526985035	0.00043862	0.001216737	-0.69390704	-2.197916015
SPTBN4	-1.136176613	-1.472023818	-3.97254587	7.60E-05	0.00026081	0.936116072	-2.197977493
DNAAF1	-1.136224764	-1.35991183	-3.656617623	0.000268332	0.000789428	-0.239117393	-2.198050853
P2RY10	-1.136576506	2.273156324	-5.225590924	2.10E-07	1.52E-06	6.518768577	-2.198586823
C8orf31	-1.136937277	-2.42709529	-3.209922153	0.001368264	0.003312108	-1.738626093	-2.199136686
XXbac-B476C20.14	-1.137019142	-1.257602808	-5.462094006	5.88E-08	5.07E-07	7.734943646	-2.199261479
RP11-890B15.2	-1.137265943	0.08406254	-5.761206562	1.10E-08	1.18E-07	9.345680708	-2.199637737
ANK3	-1.137488737	1.710621243	-4.545699859	6.12E-06	2.87E-05	3.308400745	-2.199977451
RASIP1	-1.137540889	-1.630942127	-4.02985446	5.99E-05	0.000211493	1.159423077	-2.200056979
DPP10	-1.137907426	-2.613161735	-2.29493701	0.021934737	0.038508777	-4.210653227	-2.200616006
SGPP2	-1.138112872	-1.52930266	-3.626165236	0.00030158	0.000873434	-0.347391596	-2.200929405
ADARB2-AS1	-1.139152997	-4.33811903	-3.44882831	0.000585542	0.001564184	-0.960361445	-2.20251676
C9orf118	-1.139345555	-2.067181038	-4.620954929	4.30E-06	2.11E-05	3.642701845	-2.202810752
TRIP6	-1.13939742	2.93435633	-5.371709066	9.62E-08	7.69E-07	7.264145515	-2.202889944
UBASH3A	-1.139552212	1.197937786	-4.747302909	2.35E-06	1.25E-05	4.2158029	-2.203126313
FBXO32	-1.139568026	3.152327721	-5.545009105	3.72E-08	3.41E-07	8.173349608	-2.203150462
AOC4	-1.139635122	-1.909948794	-3.969483819	7.70E-05	0.000263583	0.924271849	-2.203252927
CTD-2245O6.1	-1.139965338	-0.485282588	-6.650616565	4.70E-11	1.03E-09	14.6067363	-2.203757284

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
LMNA	-1.140092261	6.905556727	-4.705392175	2.87E-06	1.48E-05	4.024058666	-2.203951171
SLC7A11	-1.140280975	2.671767211	-3.372422887	0.000772484	0.001996857	-1.215204178	-2.204239481
PGF	-1.140369286	-0.704609253	-3.523244864	0.000444782	0.001230889	-0.70679097	-2.204374412
MOCS2	-1.141610369	2.361918333	-7.007508947	4.35E-12	1.38E-10	16.91261142	-2.206271548
HBQ1	-1.141763355	-0.869009887	-3.102856265	0.001968234	0.004566081	-2.069644401	-2.206505518
RP11-277P12.20	-1.142727579	-1.894986916	-4.226357138	2.58E-05	0.000101344	1.948609729	-2.207980727
RP11-348F1.3	-1.142818886	-2.61221219	-4.470414548	8.66E-06	3.88E-05	2.979243169	-2.208120472
C1orf88	-1.142982023	-2.005937632	-5.199607584	2.40E-07	1.71E-06	6.388262834	-2.208370176
GPC5	-1.143164255	-3.130676846	-3.32718865	0.000907916	0.002306148	-1.363446712	-2.208649141
RP11-713P17.3	-1.143332664	-2.566600156	-3.873545635	0.000113951	0.000371721	0.557665987	-2.208906977
GTF2IRD1	-1.143360852	1.033950223	-4.171908624	3.27E-05	0.000124485	1.726297001	-2.208950135
CD27	-1.143385649	0.469178393	-4.79729603	1.84E-06	1.01E-05	4.446652469	-2.208988103
RP11-57H12.2	-1.143591016	-2.807496346	-3.502546184	0.000480375	0.001317557	-0.777851301	-2.209302575
TCAM1P	-1.143951574	-3.025726638	-3.428188269	0.00063138	0.001669941	-1.029754427	-2.209854791
CSPG4P5	-1.144161942	-3.257388776	-3.720937064	0.000209085	0.000633064	-0.0075294	-2.210177048
SNAP25	-1.144221522	-4.429712895	-3.484090434	0.000514337	0.001396533	-0.840866657	-2.210268324
GZMA	-1.145604801	-0.662723749	-3.609856908	0.000320937	0.000923126	-0.405013341	-2.212388581
IL7R	-1.145781231	4.470783765	-4.458700899	9.14E-06	4.07E-05	2.928504755	-2.212659156
U73166.2	-1.145905263	3.38097086	-7.202345405	1.13E-12	4.24E-11	18.21765858	-2.212849391
SNORA31	-1.146171251	0.894902596	-6.600545433	6.51E-11	1.37E-09	14.29205738	-2.213257409
SPAG16	-1.146591526	0.044863592	-4.516015114	7.02E-06	3.23E-05	3.177984065	-2.213902252
ZNF204P	-1.147084648	-1.578910968	-4.226676249	2.58E-05	0.000101223	1.949920863	-2.214659108
SHE	-1.147526013	-1.733025219	-3.052880246	0.002324036	0.005281558	-2.220384045	-2.215336743
CTD-2506J14.1	-1.149285898	-2.655435082	-4.598982566	4.77E-06	2.31E-05	3.544550743	-2.218040792
IGKC	-1.150124477	5.649768407	-4.547608722	6.06E-06	2.84E-05	3.316815215	-2.219330421
MID2	-1.150375896	-1.770234474	-4.023541997	6.15E-05	0.000216342	1.134674193	-2.219717219
C10orf111	-1.150464286	-0.380977065	-6.094878422	1.54E-09	2.11E-08	11.23730886	-2.219853219
COL7A1	-1.150477114	2.104111901	-4.990293608	7.06E-07	4.37E-06	5.359505322	-2.219872957
ST5	-1.150769026	-0.184327844	-4.3721388	1.35E-05	5.74E-05	2.557528672	-2.220322167
INS-IGF2	-1.15130714	-2.732684281	-3.530077356	0.000433585	0.001203956	-0.683244712	-2.221150485
RP11-739P1.2	-1.15158727	-3.438888418	-3.779293542	0.000166191	0.00051765	0.205988943	-2.22158181
TMEM30B	-1.153006541	-2.486307248	-4.483324695	8.16E-06	3.68E-05	3.035312624	-2.223768398
INSL3	-1.153336577	0.164667834	-5.462638082	5.87E-08	5.05E-07	7.737800091	-2.224277173
FBLN1	-1.153423883	-2.648647688	-3.129697141	0.001798512	0.004219488	-1.987694341	-2.224411781
TLE2	-1.153448527	-0.756233638	-4.758548808	2.22E-06	1.18E-05	4.267530553	-2.224449778
RP11-382A20.4	-1.153529626	-3.032391279	-3.931775951	8.99E-05	0.000302231	0.779141603	-2.224574826
TNS1	-1.153957383	6.137664966	-4.515777154	7.03E-06	3.23E-05	3.176941932	-2.225234507
FFAR3	-1.155280448	-2.903032958	-3.93626939	8.82E-05	0.000297934	0.796365439	-2.227276159
ASS1	-1.155476616	-2.262765154	-2.994182763	0.002816767	0.006256452	-2.394359611	-2.227579029
RPS16P5	-1.156010253	2.967153695	-7.086527646	2.53E-12	8.47E-11	17.43798054	-2.228403138
SUSD4	-1.156432297	-2.39461283	-4.221673702	2.64E-05	0.00010317	1.929377832	-2.229055128
TCF7L2	-1.157409635	4.603987246	-6.402606427	2.31E-10	4.16E-09	13.06951965	-2.230565688
MIR4732	-1.157857925	-2.822158672	-3.487400967	0.000508084	0.00138222	-0.829587097	-2.231258902
CCNLJ	-1.15790773	-0.410655514	-3.337719978	0.000874548	0.00223145	-1.329108169	-2.231335932
CXorf57	-1.158623049	-1.606768716	-4.674273818	3.34E-06	1.69E-05	3.882743907	-2.23244255
ST7-OT4	-1.158904923	2.902001302	-4.586132992	5.06E-06	2.44E-05	3.487359432	-2.232878767
LGR6	-1.159141292	-0.805439412	-4.39872231	1.20E-05	5.18E-05	2.670711532	-2.233244629
SLC25A47	-1.160140276	-3.087541402	-4.54179883	6.23E-06	2.91E-05	3.291215145	-2.234791559
IGLC1	-1.160506908	2.249429614	-3.942225385	8.61E-05	0.000291631	0.819224831	-2.235359558
PTH1R	-1.160645918	-2.990606755	-3.266417204	0.001124685	0.00278433	-1.55952312	-2.235574956
FZD6	-1.160964354	1.017533049	-3.475824106	0.000530264	0.001434054	-0.868985794	-2.236068452
MAP7D2	-1.16147366	-0.786373852	-4.357845908	1.44E-05	6.07E-05	2.49694804	-2.236857978
MAP3K9	-1.161751707	1.842576584	-5.185028435	2.59E-07	1.83E-06	6.315306906	-2.237289123
SPTLC3	-1.162083089	-0.265529573	-2.977010747	0.002978008	0.006566531	-2.444628855	-2.23780308
MAFF	-1.163473365	5.886996642	-4.912537243	1.04E-06	6.18E-06	4.987595408	-2.239960614
RP11-206L10.11	-1.164148453	3.362092947	-8.130299859	1.21E-15	1.13E-13	24.8720616	-2.24109016
RP11-585P4.5	-1.164282328	0.780536846	-5.220239984	2.16E-07	1.56E-06	6.49184212	-2.24121698
PFKFB2	-1.164474036	4.524383552	-5.514656298	4.41E-08	3.93E-07	8.012139454	-2.241514817
RP11-74C1.2	-1.165199389	-1.349668967	-4.450910854	9.47E-06	4.20E-05	2.894832593	-2.242642081
RP4-811H24.6	-1.16536962	4.994285	-7.444155814	2.04E-13	9.96E-12	19.88224932	-2.242906718
RP11-638I2.6	-1.165804457	-2.391563427	-4.661222545	3.55E-06	1.79E-05	3.823742923	-2.243582844

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
TP53INP2	-1.166849754	5.85670751	-5.765732601	1.07E-08	1.15E-07	9.370672876	-2.24520901
ARHGEF37	-1.167912598	0.879600873	-3.95477582	8.18E-05	0.000278291	0.867503768	-2.246863681
RP3-403A15.5	-1.168322085	-2.558521575	-4.225774206	2.59E-05	0.000101521	1.946214876	-2.24750151
PTPRB	-1.170147881	-1.80187449	-3.084591293	0.002092018	0.004818113	-2.125014547	-2.250347626
GOLGA7B	-1.170260936	-1.188144984	-4.710984561	2.80E-06	1.45E-05	4.049550043	-2.250523978
RP4-773A18.4	-1.170301643	-1.787638578	-5.533327273	3.97E-08	3.60E-07	8.111206238	-2.25058748
PLCL1	-1.170863695	1.798084643	-4.40705884	1.16E-05	5.02E-05	2.706341534	-2.251464444
IGKJ1	-1.171878604	0.060080438	-5.003511197	6.60E-07	4.14E-06	5.423278736	-2.253048865
IER5	-1.172069633	6.713458707	-7.252470154	7.97E-13	3.19E-11	18.55863832	-2.253347215
SOGA3	-1.172406748	-2.541249862	-4.248340275	2.35E-05	9.31E-05	2.039155697	-2.253873816
DPY19L2P1	-1.172831432	-3.324672736	-3.210715179	0.001364531	0.003304694	-1.7361332	-2.254537383
CCL2	-1.172833513	-3.070083116	-3.349007722	0.000840051	0.002150941	-1.292185344	-2.254540635
SLC25A34	-1.17287573	1.49036516	-7.333485807	4.50E-13	1.97E-11	19.1142673	-2.254606609
PLAT	-1.173147242	-3.062601413	-3.90702142	9.95E-05	0.000329864	0.684597169	-2.255030962
U4atac	-1.173701043	-0.811394908	-6.597740434	6.63E-11	1.39E-09	14.27449359	-2.255896756
CTB-161K23.1	-1.173992859	-1.24136217	-6.122516941	1.30E-09	1.83E-08	11.39844485	-2.256353106
GPR150	-1.17439003	-2.205321531	-4.640460371	3.92E-06	1.95E-05	3.730209168	-2.256974361
RP3-370M22.8	-1.174774143	-0.408270501	-5.009641305	6.40E-07	4.03E-06	5.45291038	-2.257575353
CYP4F2	-1.175066225	-0.117230952	-2.795453511	0.005277877	0.01090286	-2.958714402	-2.25803246
SLC7A10	-1.17587891	-3.534386538	-3.651946737	0.000273198	0.000801469	-0.255782134	-2.25930479
RP11-420A6.2	-1.176189072	-0.875973675	-5.092178739	4.20E-07	2.79E-06	5.855240944	-2.259790566
RPL31P52	-1.176764967	-0.387166808	-6.36169734	2.98E-10	5.21E-09	12.8211337	-2.260692809
RNASE4	-1.178173248	-1.068470977	-4.663839563	3.51E-06	1.77E-05	3.835561021	-2.262900653
RELB	-1.178226941	6.059601816	-6.19946629	8.15E-10	1.23E-08	11.85063696	-2.262984873
EBF1	-1.178560528	1.4195329	-4.444542605	9.75E-06	4.31E-05	2.867348179	-2.263508193
TNFRSF12A	-1.178761505	2.862190484	-4.915362431	1.03E-06	6.11E-06	5.001010802	-2.263823535
PAIP2B	-1.179167481	1.078142687	-4.684241467	3.18E-06	1.62E-05	3.927911213	-2.264460668
MOCS1	-1.179437634	-2.298734158	-3.068065288	0.002210136	0.005053724	-2.174836478	-2.264884742
ANKRD34B	-1.179537629	-3.721629865	-3.614618738	0.000315167	0.000908121	-0.388214679	-2.265041729
IGHV4-39	-1.180386253	-0.500246299	-4.226699264	2.58E-05	0.000101223	1.95001543	-2.266374466
IGKJ5	-1.180387682	5.819905772	-4.855740986	1.38E-06	7.87E-06	4.719460576	-2.266376711
RP11-732A19.9	-1.180769416	-1.944656845	-5.373972377	9.50E-08	7.62E-07	7.275844059	-2.266976469
NMUR1	-1.180987072	1.090764844	-2.995897057	0.002801117	0.0062273	-2.389325599	-2.267318507
FAM211A	-1.181124236	1.265280464	-4.509450119	7.24E-06	3.32E-05	3.149252364	-2.267534084
AL049758.2	-1.181273053	1.141960136	-8.569471464	3.70E-17	5.03E-15	28.268476777	-2.267767996
NAGS	-1.182297958	-2.681990717	-4.419862983	1.09E-05	4.76E-05	2.761192441	-2.269379613
SH2D1B	-1.182863871	-1.468704427	-3.887686675	0.000107604	0.000353471	0.611155627	-2.270269978
MYO3B	-1.183044017	-3.182751482	-3.575839446	0.000365121	0.001034527	-0.524391069	-2.270553478
CXADR	-1.183872817	-1.644248849	-3.00363872	0.002731426	0.006089524	-2.366556997	-2.271858242
KRT13	-1.184309211	-3.8466375	-3.819244636	0.000141764	0.000449805	0.354027901	-2.272545555
HABP4	-1.184803962	0.872437587	-5.49711384	4.85E-08	4.28E-07	7.919348106	-2.273325019
SLC16A2	-1.185116892	-3.709595229	-3.906493942	9.97E-05	0.000330463	0.682588888	-2.273818172
CTD-2284010.1	-1.185213208	-2.796516024	-3.992471519	7.00E-05	0.000242421	1.013406167	-2.27396998
ADAMTS10	-1.185356483	3.324648135	-4.219643383	2.66E-05	0.000103882	1.921047002	-2.27419582
CABP1	-1.185524361	-2.846862846	-4.048875048	5.53E-05	0.000196639	1.234223181	-2.27446047
CABP4	-1.1858674	0.861319809	-5.548743188	3.65E-08	3.34E-07	8.193239692	-2.275001347
TRPV3	-1.186410181	-0.48138234	-4.02787715	6.04E-05	0.000212985	1.151666717	-2.275857427
RNF157	-1.186725769	1.127271238	-5.086662347	4.32E-07	2.87E-06	5.82815613	-2.276355321
LIN7A	-1.187351648	1.86188329	-2.757742732	0.005921953	0.012074052	-3.061499981	-2.277343079
CPEB2	-1.18743251	5.083236145	-4.584382449	5.10E-06	2.45E-05	3.479579943	-2.277470725
DCST1	-1.18863817	-0.994306244	-4.498002479	7.63E-06	3.48E-05	3.099247894	-2.279374803
AKAP5	-1.190039726	-1.457722474	-5.551405621	3.59E-08	3.30E-07	8.207429199	-2.281590257
ZNF80	-1.190829817	-2.419089022	-5.008395002	6.44E-07	4.05E-06	5.446883214	-2.28284011
GMPR	-1.191141704	3.665836442	-4.438122659	1.00E-05	4.42E-05	2.839678984	-2.283333676
RP11-304F15.4	-1.191394458	-2.571320614	-4.133895521	3.85E-05	0.000143627	1.572741977	-2.283733741
RP11-521I2.3	-1.191570151	1.081723952	-5.711001255	1.46E-08	1.51E-07	9.069688571	-2.284011874
RP11-10H3.1	-1.191685924	-4.557116451	-3.289836423	0.001036024	0.002592491	-1.48438116	-2.284195168
ANK1	-1.192027758	5.690197035	-3.142323792	0.001723424	0.004063621	-1.948903362	-2.284736453
DKK2	-1.19257723	-2.939394693	-3.138306057	0.001746997	0.004111832	-1.961263071	-2.285606794
LOX	-1.193769926	-1.909083525	-2.939385676	0.003361172	0.007312505	-2.553778544	-2.287497118
IGLL5	-1.193849274	2.41583315	-4.116083885	4.16E-05	0.000153654	1.501259156	-2.287622935

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
PI4K2A	-1.194251644	4.644520466	-5.097918191	4.08E-07	2.72E-06	5.883450582	-2.288261045
CHRNE	-1.195168358	2.352184712	-7.613809413	5.95E-14	3.47E-12	21.07955839	-2.289715509
KLF11	-1.195201583	5.062086871	-4.691435445	3.07E-06	1.57E-05	3.960567218	-2.289768241
MREG	-1.195214903	1.494473813	-4.579594066	5.22E-06	2.50E-05	3.458314735	-2.289789381
BAI2	-1.195782906	-2.171643924	-5.07510183	4.58E-07	3.02E-06	5.771485971	-2.290691072
RP11-277P12.6	-1.196796188	-1.175000958	-4.332975407	1.61E-05	6.70E-05	2.391989883	-2.292300512
CD164L2	-1.197044468	-3.374396881	-4.303042372	1.84E-05	7.54E-05	2.266435046	-2.292695038
PLXNA1	-1.197183473	3.647940857	-6.227631554	6.86E-10	1.06E-08	12.0174603	-2.292915951
CCDC68	-1.197838612	-2.123132794	-3.533051769	0.000428794	0.001192498	-0.672980326	-2.293957419
IGHV3-7	-1.197935573	-0.374573262	-4.242866374	2.40E-05	9.51E-05	2.016566923	-2.294111596
CCDC89	-1.198196405	-3.248646189	-4.052381726	5.45E-05	0.00019425	1.248050747	-2.294526398
XXbac-BPG154L12.4	-1.198417623	-1.337334866	-4.121292304	4.07E-05	0.000150727	1.52213103	-2.29487826
ZAP70	-1.198559088	4.643867126	-5.355622853	1.05E-07	8.30E-07	7.181133768	-2.295103298
HIST1H3C	-1.198960511	4.904991313	-5.742866834	1.22E-08	1.29E-07	9.244599602	-2.295741988
LRRN4CL	-1.199479062	-1.756603518	-4.52861062	6.62E-06	3.07E-05	3.233220762	-2.2965673
IGLV3-19	-1.200265093	-1.129778587	-4.436258601	1.01E-05	4.45E-05	2.831652329	-2.297818892
RGS22	-1.200558035	-3.226120186	-4.410383659	1.14E-05	4.95E-05	2.720569802	-2.298285515
TBR1	-1.200642902	-2.646677494	-3.694111558	0.000232119	0.000693663	-0.104595122	-2.298420716
ZNF883	-1.200674628	-3.577908473	-3.819893436	0.000141397	0.000448857	0.356444523	-2.298471261
TNXB	-1.201082798	3.760275122	-5.017647623	6.15E-07	3.90E-06	5.491663252	-2.299121642
KLF1	-1.202145115	2.554896759	-3.361207015	0.000804192	0.002069601	-1.252143658	-2.300815205
HLA-P	-1.202929567	-2.903041163	-2.830727547	0.004733496	0.009903791	-2.861326018	-2.302066591
SKAP1	-1.20303984	1.677074345	-5.187575504	2.56E-07	1.81E-06	6.328038751	-2.302242558
TACC2	-1.203107358	-2.78203781	-3.166580001	0.001587216	0.003783339	-1.873954781	-2.302350305
BCAM	-1.203117194	1.119087531	-4.245385005	2.38E-05	9.41E-05	2.026956892	-2.302366002
HOXA13	-1.203255992	-3.655857447	-2.527771905	0.01162574	0.021970622	-3.658510655	-2.302587518
RP3-441A12.1	-1.203290389	-1.281364003	-6.571781335	7.84E-11	1.63E-09	14.11227358	-2.302642417
UBTFL6	-1.203560622	-3.124903562	-4.07087281	5.04E-05	0.000181416	1.321156702	-2.303073768
CCNI2	-1.20392489	-2.65978866	-4.730806718	2.54E-06	1.34E-05	4.140137511	-2.303655347
LPAR5	-1.204102564	2.157529999	-5.895837946	5.03E-09	5.94E-08	10.09695143	-2.30393907
ANK2	-1.205514468	-2.474853317	-3.870021179	0.000115587	0.000376436	0.544363915	-2.306194941
KIAA1377	-1.205658715	-1.374094074	-4.346872226	1.52E-05	6.34E-05	2.450565671	-2.306425536
GLB1L3	-1.205952294	-2.538488542	-4.697916669	2.98E-06	1.53E-05	3.990028894	-2.306894926
WNT9A	-1.207556251	-2.860594983	-3.392364323	0.000718961	0.001873477	-1.149229825	-2.309461108
SLCO2B1	-1.207898352	-1.399332639	-3.540987268	0.000416251	0.001162698	-0.645554469	-2.310008806
RP11-800A3.5	-1.208197055	-1.171782033	-3.977176135	7.46E-05	0.000256574	0.954043077	-2.310487132
TRPV6	-1.208279241	-0.714628722	-3.546627209	0.000407546	0.001141778	-0.626025777	-2.310618758
CAPN12	-1.208466534	0.540681169	-6.293903184	4.55E-10	7.52E-09	12.41275281	-2.310918746
SH2D2A	-1.208539262	1.456628487	-6.292273006	4.60E-10	7.57E-09	12.40298274	-2.311035245
RP11-178C3.2	-1.209276186	-1.336651266	-6.423132646	2.03E-10	3.72E-09	13.1947017	-2.312216016
GIMAP5	-1.209736344	2.593277047	-5.895986912	5.03E-09	5.93E-08	10.09779168	-2.312953632
RP11-755B10.3	-1.210096006	-0.544342939	-5.916053765	4.47E-09	5.35E-08	10.2111612	-2.31353032
RP11-23J18.1	-1.210224004	-2.166980836	-4.940924768	9.05E-07	5.45E-06	5.122727919	-2.313735588
LSAMP	-1.211073534	-4.448576808	-3.683594084	0.000241784	0.000718938	-0.142465035	-2.315098431
PCDHB12	-1.211084612	-4.236348059	-4.006055735	6.61E-05	0.000230669	1.066313235	-2.315116208
RIC3	-1.211455369	0.031235721	-5.65257635	2.04E-08	2.02E-07	8.751366496	-2.315711245
MAP9	-1.212040147	0.128670403	-4.548995104	6.02E-06	2.83E-05	3.322928664	-2.316650078
RP11-1024P17.1	-1.212571234	1.590569072	-6.454852559	1.66E-10	3.09E-09	13.38887714	-2.317503044
CCR7	-1.212862902	3.613135582	-4.631381126	4.09E-06	2.02E-05	3.689432943	-2.317971619
DUSP15	-1.213067062	-2.359912766	-3.881090117	0.000110522	0.000362152	0.586180052	-2.318299665
KCNK12	-1.213675825	-2.93010444	-3.493918066	0.000495983	0.001353966	-0.807351638	-2.319278106
LAMB1	-1.213752932	-1.45976722	-3.344654617	0.000853202	0.0021815	-1.306439039	-2.319402067
AKR1C2	-1.214133807	-1.979356738	-3.501963854	0.000481414	0.001319856	-0.779844579	-2.320014475
RP11-476B13.2	-1.214334804	-1.927595614	-5.162606784	2.92E-07	2.03E-06	6.20348558	-2.320337724
ZFP36L1	-1.214371417	5.703854431	-5.686466049	1.68E-08	1.71E-07	8.935636635	-2.320396611
LDOC1	-1.214416095	-3.136587305	-4.109030586	4.28E-05	0.000157666	1.473034949	-2.320468471
CDKL4	-1.214435535	-1.794623557	-4.795308169	1.86E-06	1.02E-05	4.43742911	-2.320499738
IGKV2-30	-1.215667396	-1.905139616	-4.759174992	2.22E-06	1.18E-05	4.27041425	-2.32248197
ATXN1	-1.215676216	5.620187579	-5.324818851	1.24E-07	9.58E-07	7.022829238	-2.322496168
RHAG	-1.217091654	3.232913557	-2.613668703	0.009086684	0.017671229	-3.441517545	-2.324775903
CCDC109B	-1.217557985	3.159708578	-5.752797276	1.15E-08	1.23E-07	9.299294637	-2.325527475

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
CTSL1	-1.217837027	1.848933753	-3.850447878	0.000125085	0.000403175	0.470704043	-2.325977317
FAM46B	-1.21796401	-1.717703951	-3.92767778	9.14E-05	0.000306513	0.76344952	-2.326182053
RNF182	-1.218044109	-0.616492262	-2.566698848	0.010405865	0.019922944	-3.561060059	-2.326311207
RP11-793H13.3	-1.218355294	-3.182990473	-4.211303151	2.76E-05	0.000107259	1.886865869	-2.32681304
AC011816.1	-1.218661676	-1.316483613	-5.543180667	3.76E-08	3.43E-07	8.163614787	-2.327307233
ZNF233	-1.218787192	-1.237356215	-5.500552742	4.76E-08	4.20E-07	7.937516317	-2.327509719
TGM2	-1.218810112	2.737767642	-3.891945993	0.000105758	0.000348686	0.627303936	-2.327546696
HAPLN3	-1.219036095	2.192180549	-5.544226764	3.74E-08	3.42E-07	8.169183961	-2.32791131
CSPG4	-1.219053405	0.554054206	-2.347674574	0.019077275	0.034028241	-4.090211039	-2.327939242
COX6B2	-1.219804065	-2.375607034	-4.109584186	4.27E-05	0.000157353	1.475248519	-2.329150825
GADD45G	-1.220417268	1.993500686	-3.7828987	0.000163833	0.0005116	0.219285735	-2.330141018
AC104698.1	-1.221989477	3.92791863	-6.447103986	1.74E-10	3.24E-09	13.34136232	-2.332681726
SULT1C4	-1.222022609	0.161907483	-2.979654936	0.002952643	0.00651497	-2.436906786	-2.332735297
LRRC8E	-1.222239911	-3.272261972	-3.856926231	0.000121863	0.00039427	0.495043746	-2.333086685
GPAT2	-1.222308701	-2.332601146	-3.089702003	0.00205668	0.004744483	-2.109553794	-2.333197933
RP11-618I10.1	-1.222326432	-3.183033124	-3.025447424	0.002543544	0.0057237	-2.30210615	-2.333226608
RP11-404O13.5	-1.222381783	-4.067667572	-3.684066378	0.000241342	0.000717732	-0.140766717	-2.333316128
CHPF	-1.222499194	0.4431935	-5.015922695	6.20E-07	3.92E-06	5.483309128	-2.333506027
LAMP3	-1.22308763	-2.141184139	-4.83106511	1.56E-06	8.77E-06	4.603893965	-2.334457995
AC003080.4	-1.223537264	-1.660013587	-4.159337701	3.45E-05	0.000130588	1.67536598	-2.335185672
CNR2	-1.224175682	2.449298511	-5.739754851	1.24E-08	1.31E-07	9.227477615	-2.336219261
CD5L	-1.224293445	-1.676528394	-3.063847542	0.002241248	0.005115812	-2.187509874	-2.336409968
TAS1R2	-1.224365931	-2.909329768	-4.305601031	1.82E-05	7.46E-05	2.27713459	-2.336527361
JAG2	-1.22472035	0.196939854	-4.528771562	6.62E-06	3.07E-05	3.23392752	-2.337101433
AF131215.5	-1.225030657	-1.884955594	-4.37753424	1.32E-05	5.62E-05	2.580447022	-2.33760417
CETP	-1.225408755	0.301455099	-3.990531706	7.05E-05	0.000244183	1.005865302	-2.338216884
PGPEP1L	-1.225554017	-4.379039696	-3.702073491	0.000225045	0.000675066	-0.075856932	-2.338452326
GPR111	-1.225734466	-3.261245622	-4.000121368	6.78E-05	0.000235814	1.043178954	-2.338744834
IGHV1-8	-1.227656638	-1.903927265	-3.609691767	0.000321138	0.000923571	-0.405595534	-2.341862932
RP5-1071N3.1	-1.22805801	-0.821406601	-4.675586076	3.32E-06	1.68E-05	3.888684986	-2.342514553
KLHL29	-1.228203756	-2.343630953	-4.589174435	4.99E-06	2.41E-05	3.500882512	-2.342751213
ALPK2	-1.228377815	-2.061750354	-4.253372929	2.29E-05	9.13E-05	2.059948412	-2.343033879
DTHD1	-1.229424661	-0.946860895	-4.857258364	1.37E-06	7.82E-06	4.726585397	-2.344734645
BCAR1	-1.230730705	-1.971742785	-3.880191695	0.000110925	0.000363353	0.582781674	-2.346858248
PPP1R13B	-1.231052708	1.200539475	-5.359358389	1.03E-07	8.16E-07	7.200389744	-2.347382115
WFDC1	-1.234131549	0.252725851	-3.472449483	0.000536897	0.00144941	-0.880446316	-2.352396989
PHLDA3	-1.234144589	0.641342095	-4.751877419	2.30E-06	1.22E-05	4.236830098	-2.352418252
AC079779.4	-1.234259843	-2.186682948	-5.468829363	5.67E-08	4.91E-07	7.770323758	-2.352606189
PSD3	-1.234576406	3.255175573	-3.849685385	0.00012547	0.000404282	0.467841909	-2.353122465
MFAP4	-1.234693685	0.622334449	-3.316491572	0.000943014	0.002386083	-1.398216969	-2.353313762
RP11-317P15.4	-1.234767305	-2.962352691	-4.057038773	5.34E-05	0.000190961	1.266432382	-2.353433853
C17orf96	-1.234768665	0.057802982	-4.429894857	1.04E-05	4.57E-05	2.804274429	-2.353436073
ADAMTS9	-1.235142991	-2.61977802	-2.841656947	0.004575746	0.009620074	-2.830906958	-2.354046781
RP11-690I21.2	-1.235415838	-0.357871614	-5.891999547	5.15E-09	6.05E-08	10.07530758	-2.354492028
CTNNA3	-1.235761878	-3.150619641	-3.090806703	0.002049114	0.004731456	-2.106208589	-2.355056836
PEG10	-1.236809976	-0.833985636	-4.558705574	5.76E-06	2.72E-05	3.365798528	-2.356768374
EPAS1	-1.237590766	2.02274596	-4.774374808	2.06E-06	1.11E-05	4.340523623	-2.358044208
MLLT3	-1.237596984	3.757842896	-5.010284646	6.38E-07	4.02E-06	5.456022155	-2.358054371
AC091633.3	-1.237651095	-1.032467604	-6.769821488	2.15E-11	5.33E-10	15.3646667	-2.358142817
GZMM	-1.238009496	1.091356949	-6.621484375	5.68E-11	1.23E-09	14.4233854	-2.35872871
GRK7	-1.238375716	-0.685448623	-4.890764896	1.16E-06	6.80E-06	4.884456451	-2.359327537
ATP8A2	-1.23857306	-1.824864091	-3.727803558	0.000203545	0.000618853	0.017426305	-2.359650287
PCDHB13	-1.238607185	-2.405596181	-3.435090787	0.000615691	0.001633946	-1.00659308	-2.359706101
RIMS3	-1.239081186	2.176724478	-5.852343668	6.49E-09	7.40E-08	9.852468663	-2.360481517
AL163636.6	-1.240336272	-1.271596432	-4.684712347	3.17E-06	1.62E-05	3.930047234	-2.362535933
CTD-2105E13.6	-1.240512027	-3.239081948	-4.342542603	1.55E-05	6.44E-05	2.432296701	-2.362823764
SLC2A14	-1.240642778	1.981329267	-4.120910615	4.07E-05	0.00015086	1.520600609	-2.363037916
RP11-436A20.4	-1.240656389	1.331409859	-5.377040597	9.34E-08	7.51E-07	7.291710436	-2.36306021
TBC1D8B	-1.241553222	-1.970925654	-3.302957143	0.000989227	0.002490872	-1.442052802	-2.364529632
COL15A1	-1.2422223637	-1.939374181	-3.929217729	9.08E-05	0.000305	0.769344193	-2.365628676
FSTL1	-1.242512579	0.331149698	-3.743779713	0.000191184	0.000584877	0.075663622	-2.366102511

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
DHDH	-1.244978998	-2.154243108	-5.231001207	2.04E-07	1.48E-06	6.546020246	-2.370151038
ST3GAL5	-1.245124379	3.651753234	-7.430652571	2.25E-13	1.08E-11	19.78799139	-2.370389891
SLC28A1	-1.24536779	-3.168487472	-4.329586568	1.64E-05	6.79E-05	2.377733184	-2.370789857
CYP2U1	-1.245844983	1.296925169	-6.114873471	1.36E-09	1.90E-08	11.35381465	-2.371574161
PYGM	-1.246300815	2.986849108	-5.443467114	6.51E-08	5.51E-07	7.637312824	-2.372323599
HMGB1P20	-1.247053129	-1.476575115	-5.079002092	4.49E-07	2.97E-06	5.790591516	-2.373561002
RP11-540O11.1	-1.247191099	-0.659397004	-6.475120999	1.46E-10	2.76E-09	13.51341355	-2.373788005
BACH2	-1.247839629	4.278273485	-5.052212073	5.15E-07	3.35E-06	5.659641261	-2.374855326
SPATA18	-1.248222018	-3.149966148	-3.8248932	0.000138597	0.000441169	0.375080791	-2.375484847
MAGI2	-1.248328777	-1.614496819	-4.736840542	2.47E-06	1.30E-05	4.167784448	-2.375660661
MCF2L	-1.24832996	1.167293723	-4.93425454	9.36E-07	5.61E-06	5.090909026	-2.37566261
AC110769.3	-1.248390422	-0.780921567	-5.360235967	1.02E-07	8.14E-07	7.204915336	-2.375762174
ICAM5	-1.24843386	1.32133252	-3.969607011	7.69E-05	0.000263583	0.924748194	-2.375833706
KLHL25	-1.248718116	1.385441769	-7.441373628	2.08E-13	1.01E-11	19.862816	-2.376301866
U91328.2	-1.249858742	0.509301756	-5.55416083	3.54E-08	3.25E-07	8.222119903	-2.378181366
MDK	-1.249953216	2.275062872	-6.456588602	1.64E-10	3.06E-09	13.3995299	-2.378337103
GYLTL1B	-1.250262416	-0.337384288	-4.718540593	2.70E-06	1.40E-05	4.084038227	-2.378846885
RP11-44N11.1	-1.250324424	1.690889329	-6.151799901	1.09E-09	1.57E-08	11.5699075	-2.378949133
IL6	-1.250634204	-1.731528191	-4.126003125	3.99E-05	0.000148029	1.541030856	-2.379460002
TNFRSF9	-1.250810002	0.437724676	-5.173945737	2.75E-07	1.92E-06	6.259977745	-2.379749967
CNRIP1	-1.251388196	1.562330364	-3.60425426	0.000327851	0.000940409	-0.42475057	-2.380703899
FAM108A7P	-1.25205293	-3.953387728	-3.154931746	0.001651336	0.003911615	-1.910016948	-2.381801082
RP11-61L23.2	-1.252539727	-1.585078897	-5.635690035	2.24E-08	2.19E-07	8.659936091	-2.382604889
SLC45A2	-1.253173203	-2.116612194	-4.82333203	1.62E-06	9.07E-06	4.567792775	-2.383651302
REEP2	-1.253304421	-2.294759462	-5.29437023	1.46E-07	1.11E-06	6.867200463	-2.383868113
SFRP1	-1.254175743	-3.568368989	-3.744184452	0.00019088	0.00058431	0.07714215	-2.385308296
COL12A1	-1.254601826	-1.810298744	-4.107402895	4.31E-05	0.000158557	1.466528297	-2.386012871
FKBP10	-1.254941811	-1.698878429	-3.444585854	0.000594702	0.001585841	-0.974658058	-2.386575225
CSDC2	-1.255222492	-3.60086747	-3.868045485	0.000116514	0.000379204	0.536912359	-2.387039586
ADM2	-1.255679577	0.158689719	-4.410313214	1.14E-05	4.95E-05	2.720268231	-2.387795984
SEMA3B	-1.25593771	1.776177891	-5.530542123	4.04E-08	3.64E-07	8.096408418	-2.388223258
TMEM86A	-1.256248915	1.024280184	-6.174209434	9.51E-10	1.39E-08	11.70163703	-2.388738479
TEAD3	-1.256283967	-2.407431506	-3.909922647	9.83E-05	0.000326808	0.695647774	-2.388796517
IL10RA	-1.256707356	6.628376828	-5.885331251	5.35E-09	6.24E-08	10.03773791	-2.389497662
CD40	-1.256791249	2.110613828	-5.770217277	1.04E-08	1.12E-07	9.395454791	-2.389636616
LNX1	-1.2569894	-1.975538139	-4.074312852	4.97E-05	0.000178993	1.334792732	-2.38996485
FAM184A	-1.257047124	-1.542004844	-4.768463894	2.12E-06	1.14E-05	4.313234028	-2.390060476
SCN9A	-1.257545472	-0.540013166	-2.740566262	0.006238175	0.012645589	-3.107860718	-2.390886215
ACTN3	-1.257866622	-1.797284667	-5.173295357	2.76E-07	1.93E-06	6.256734287	-2.391418495
CNN2P1	-1.258672256	-4.486223336	-4.10790257	4.31E-05	0.000158307	1.468525468	-2.392754291
HCG11	-1.259099933	3.136372229	-5.531019404	4.03E-08	3.64E-07	8.098943768	-2.393463712
PIK3IP1	-1.259325516	6.293157077	-6.519982975	1.09E-10	2.16E-09	13.79034048	-2.393837989
GRIN2C	-1.260523139	-2.831655155	-4.636981943	3.98E-06	1.98E-05	3.714577986	-2.395826007
TRBV29-1	-1.261029158	-2.75276232	-5.050036669	5.21E-07	3.38E-06	5.649036763	-2.39666648
CCDC42B	-1.26105831	-3.947234819	-4.246937672	2.36E-05	9.36E-05	2.033364991	-2.39671491
COL1A2	-1.261346157	-0.677745282	-2.739389219	0.006260391	0.012686715	-3.111027205	-2.39719315
AC069363.1	-1.261779808	-2.503224024	-5.177312679	2.70E-07	1.89E-06	6.276774954	-2.397913818
RP11-561B11.1	-1.261846734	-1.977292104	-4.627385704	4.17E-06	2.06E-05	3.671513185	-2.398025058
GPR176	-1.262024471	-1.672259551	-4.547601653	6.06E-06	2.84E-05	3.316784046	-2.398320507
TRBV23-1	-1.264352611	-2.429789853	-5.044468223	5.36E-07	3.46E-06	5.621911912	-2.402193907
LMX1B	-1.264743327	-4.358633026	-3.560068232	0.000387483	0.00109037	-0.579363032	-2.402844566
PNMA5	-1.266849553	-3.537635806	-3.675500821	0.000249478	0.000739141	-0.171534572	-2.406355099
PROX1	-1.267962034	-3.964563504	-3.867906107	0.00011658	0.000379293	0.536386816	-2.408211387
NPHP3-AS1	-1.268139757	-2.080514372	-5.925363335	4.23E-09	5.10E-08	10.26387866	-2.408508068
LBH	-1.268561913	4.743844367	-6.982757385	5.15E-12	1.60E-10	16.7491475	-2.40921294
TLL2	-1.268616433	-2.627696659	-4.675973158	3.31E-06	1.68E-05	3.890437758	-2.409303987
SYNJ2-IT1	-1.268630334	-2.139870918	-5.126703041	3.51E-07	2.39E-06	6.025384887	-2.409327203
DDR1	-1.268821216	0.620693033	-4.287399328	1.98E-05	8.02E-05	2.201153967	-2.409645999
APOC4	-1.26954168	0.726852701	-2.850808535	0.00444683	0.009380619	-2.805347196	-2.410849647
RP13-270P17.2	-1.269856622	-0.838865963	-6.802354797	1.73E-11	4.47E-10	15.57366055	-2.411375996
CD8B	-1.27030784	0.197476514	-5.111200153	3.81E-07	2.56E-06	5.948847805	-2.412130296

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
GALNTL4	-1.270594156	-3.485119048	-3.867567798	0.000116739	0.000379687	0.53511126	-2.412609054
TPRG1	-1.271249201	-1.622903821	-3.732758151	0.000199633	0.000608273	0.035461179	-2.413704729
CRB2	-1.271328667	-2.558062784	-5.384696063	8.97E-08	7.24E-07	7.331335699	-2.413837684
POU5F1B	-1.271644658	-2.884068713	-4.871945846	1.28E-06	7.35E-06	4.7956601	-2.414366441
ERBB4	-1.272375747	-4.05187222	-3.777679567	0.000167256	0.000520559	0.200040167	-2.415590236
RP11-179H18.5	-1.27252359	-2.636787455	-4.392611263	1.23E-05	5.30E-05	2.644634433	-2.415837792
NRXN3	-1.272904383	-1.670880297	-3.914354524	9.65E-05	0.000321491	0.712543912	-2.416475525
LILRP1	-1.273052389	-2.281463676	-3.79877333	0.000153823	0.000484251	0.277982295	-2.416723444
PCGF2	-1.273468721	-2.301709528	-3.710492742	0.000217785	0.000656283	-0.045402543	-2.417420961
AC005789.11	-1.273639723	-1.702982229	-5.011908089	6.33E-07	4.00E-06	5.46387628	-2.417707515
EFNA5	-1.273813018	-2.937928949	-3.866431856	0.000117276	0.000381182	0.530829112	-2.417997943
CD3E	-1.273885418	3.032438412	-5.434407799	6.84E-08	5.75E-07	7.589943215	-2.418119291
EFNA1	-1.274191545	0.359149157	-4.200918774	2.89E-05	0.000111422	1.844398457	-2.418632449
IRF6	-1.274789411	-1.270046325	-3.755601139	0.000182496	0.000561609	0.118911861	-2.41963496
AF131215.3	-1.275148815	-2.272761918	-4.67803298	3.28E-06	1.66E-05	3.899767305	-2.420237814
S100A16	-1.275938866	-1.511900001	-2.68058462	0.007465349	0.014815038	-3.267516617	-2.421563552
ZCCHC12	-1.276001112	-2.799816164	-4.456383207	9.24E-06	4.11E-05	2.918480704	-2.421668034
ALDH1A1	-1.276210785	0.567950272	-3.014077736	0.002639964	0.005910332	-2.335763932	-2.422020011
SFN	-1.276560504	-0.839335853	-4.777041678	2.03E-06	1.10E-05	4.352846654	-2.422607197
PCDHB14	-1.276639938	-2.61497385	-3.661061865	0.000263778	0.000777073	-0.223242001	-2.422740588
ABCB4	-1.276913625	-0.054017921	-5.131385424	3.43E-07	2.34E-06	6.048544917	-2.423200238
HRC	-1.277908396	-4.068584397	-3.274937506	0.001091646	0.002712596	-1.532246066	-2.424871666
RAB43	-1.278244763	3.590958053	-7.970644345	4.12E-15	3.40E-13	23.67622178	-2.425437095
TPTE2P6	-1.278745801	-3.234821106	-3.662145243	0.000262679	0.000774182	-0.219369191	-2.426279578
RAPSN	-1.27884031	0.73360644	-5.662140001	1.93E-08	1.92E-07	8.803262599	-2.426438527
AC006001.1	-1.279323729	-0.149822603	-6.991122221	4.86E-12	1.52E-10	16.80433161	-2.427251714
AP001187.9	-1.279774776	-0.308342784	-4.80236662	1.80E-06	9.88E-06	4.470195753	-2.428010694
RGL1	-1.279862418	0.643310986	-4.956423097	8.38E-07	5.08E-06	5.196817634	-2.428158197
ZCCHC18	-1.279902084	-0.220763627	-5.618322987	2.47E-08	2.39E-07	8.566171053	-2.428224958
HES6	-1.279914525	2.667684272	-5.256185532	1.78E-07	1.32E-06	6.673225905	-2.428245899
ABCG4	-1.279933398	-2.855067577	-4.736823787	2.47E-06	1.30E-05	4.16770763	-2.428277665
PTRF	-1.280500484	1.573472902	-3.002946131	0.002737595	0.006101396	-2.368596286	-2.429232345
CTSH	-1.280807716	3.738876204	-4.46593952	8.84E-06	3.96E-05	2.959844186	-2.429749723
RP11-1151B14.4	-1.281325103	-0.825735144	-4.308029332	1.80E-05	7.39E-05	2.28729469	-2.430621248
TANC1	-1.281654063	2.616825935	-3.548023773	0.000405417	0.001136459	-0.621185392	-2.431175536
RP11-41J4.2	-1.28274009	-0.734534132	-5.180151757	2.66E-07	1.87E-06	6.290946778	-2.433006357
SLC7A2	-1.282758815	-2.280601555	-3.232280783	0.001266558	0.003090947	-1.668109928	-2.433037937
MEST	-1.282976573	4.443408542	-3.87419934	0.00011365	0.000370862	0.560134508	-2.433405202
RP11-448G15.3	-1.283569831	3.527294693	-7.32480351	4.78E-13	2.07E-11	19.05445544	-2.434406061
GRK5	-1.283768089	3.155231598	-6.677757723	3.94E-11	8.92E-10	14.77822059	-2.434740625
ASPG	-1.284270916	-4.09197666	-4.397145858	1.21E-05	5.21E-05	2.663981144	-2.43558936
ARHGEF26	-1.285308334	-3.110656764	-3.776079158	0.000168319	0.000523124	0.194143835	-2.437341383
ZNF876P	-1.285645874	-0.485790337	-5.582209713	3.03E-08	2.84E-07	8.372066423	-2.437911702
KCNJ11	-1.285670215	-2.137744107	-4.641466427	3.90E-06	1.94E-05	3.734732227	-2.437952834
MCC	-1.286115923	-1.069158255	-4.941427309	9.03E-07	5.44E-06	5.12512684	-2.438706135
FAM59B	-1.286965	0.372543156	-6.234140888	6.59E-10	1.03E-08	12.05611496	-2.440141821
RNF152	-1.287521271	0.082329085	-4.1605097	3.44E-05	0.000130055	1.680108045	-2.441082867
RP11-390K5.3	-1.288268969	-2.411914705	-4.884955473	1.20E-06	6.95E-06	4.857010225	-2.442348322
HMX2	-1.288491355	-4.521293072	-3.0619549	0.002255338	0.005143195	-2.193191284	-2.442724829
AC004019.13	-1.289945557	-2.047145363	-5.155187647	3.03E-07	2.10E-06	6.166586148	-2.44518828
ATG9B	-1.29008081	-0.287140032	-6.871096279	1.09E-11	3.08E-10	16.01826502	-2.445417527
NOSTRIN	-1.290387145	0.143806017	-5.214003768	2.23E-07	1.60E-06	6.460493881	-2.445936831
CTC-349C3.2	-1.290406836	-3.125595529	-3.970462004	7.67E-05	0.000262839	0.928054571	-2.445970215
CDKL2	-1.290413084	-2.160173283	-4.731066055	2.54E-06	1.33E-05	4.141325095	-2.445980808
THSD4	-1.291338067	-3.655148743	-3.106990455	0.001941168	0.004510717	-2.057067098	-2.44754955
ENPP4	-1.29188884	3.760383488	-5.543353195	3.76E-08	3.43E-07	8.164533219	-2.448484122
TRAV26-1	-1.292062194	-3.103498564	-4.891367376	1.16E-06	6.79E-06	4.887304607	-2.448778348
ZNF683	-1.292735933	-1.885890101	-4.62226944	4.27E-06	2.10E-05	3.64858803	-2.449922196
ZNF774	-1.292835214	-1.124970211	-6.431849196	1.92E-10	3.54E-09	13.24797267	-2.450090795
RP11-342M3.5	-1.292890601	-3.033396668	-4.673623618	3.35E-06	1.69E-05	3.879800799	-2.450184861
AC106900.6	-1.293072904	-0.914379768	-6.421326323	2.05E-10	3.76E-09	13.18367074	-2.450494492

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
PIR	-1.293117796	-1.739870479	-3.955481098	8.15E-05	0.000277579	0.870221244	-2.450570744
PPP4R1L	-1.293599959	3.858920846	-6.063306571	1.86E-09	2.49E-08	11.05407113	-2.451389886
LPHN2	-1.293673586	-2.324139175	-2.791882632	0.005336029	0.011009153	-2.968506233	-2.451514995
SLC25A27	-1.293932389	-2.698089888	-4.424145359	1.07E-05	4.68E-05	2.779571646	-2.451954808
PTPRN	-1.294013136	-3.430045983	-4.272641793	2.11E-05	8.47E-05	2.139778578	-2.452092047
TBX18	-1.294039902	-4.338662689	-3.651909316	0.000273237	0.000801469	-0.25591556	-2.45213754
PCED1B	-1.294253164	1.52299584	-6.118853834	1.33E-09	1.86E-08	11.37704951	-2.452500047
FAM167A	-1.294981777	-0.613023617	-4.287986445	1.97E-05	8.00E-05	2.203599961	-2.45373896
PLIN2	-1.295309893	7.224469929	-5.834026074	7.22E-09	8.15E-08	9.750011675	-2.454297084
AC092620.3	-1.295642965	0.366475033	-5.932559794	4.05E-09	4.92E-08	10.30468323	-2.454863768
RP11-152H18.3	-1.295722607	1.078792137	-6.60014826	6.53E-11	1.37E-09	14.28957002	-2.454999289
PLEKHG1	-1.296648726	2.18287688	-4.765447424	2.15E-06	1.15E-05	4.29932001	-2.45657575
SH2D4B	-1.296652706	-1.228994114	-4.538409349	6.33E-06	2.95E-05	3.276294629	-2.456582527
CYR61	-1.296798537	-1.172470663	-4.20266095	2.86E-05	0.000110755	1.851516097	-2.456830857
RP11-584P21.2	-1.296976656	-1.2133558	-6.371341434	2.81E-10	4.95E-09	12.87955681	-2.457134202
APOC2	-1.297323363	0.710252173	-2.886631567	0.003974278	0.008490914	-2.70451795	-2.457724769
KIAA1671	-1.297807631	-0.418848186	-4.647156909	3.80E-06	1.89E-05	3.760333384	-2.458549889
sep-10	-1.298370377	-3.102990423	-4.46776094	8.77E-06	3.93E-05	2.96773768	-2.459509073
RP11-453N18.1	-1.298464063	-2.72713613	-4.714477598	2.75E-06	1.43E-05	4.06548682	-2.459668794
KLRC4-KLRK1	-1.299770542	2.39980497	-5.76787656	1.06E-08	1.13E-07	9.382517947	-2.461897236
RRAD	-1.300307501	-0.592466004	-4.078190553	4.88E-05	0.000176447	1.350176982	-2.462813704
HES1	-1.300902985	-0.328820149	-3.63591291	0.000290538	0.000845073	-0.312829534	-2.46383046
AP000662.4	-1.301095018	-1.153694479	-4.84338783	1.47E-06	8.32E-06	4.661535681	-2.464158434
NPPC	-1.301139563	-2.456098165	-4.275308894	2.08E-05	8.39E-05	2.150855714	-2.46423452
EPHX3	-1.303591281	-2.253306293	-4.976490291	7.57E-07	4.65E-06	5.293077402	-2.468425803
MUC4	-1.304715073	-3.052314743	-3.900984444	0.000101941	0.000337058	0.661628198	-2.470349342
TRAC	-1.305063819	2.6858683	-5.761381709	1.10E-08	1.18E-07	9.3466475	-2.470946577
BEST3	-1.305242475	-3.776657015	-4.164955681	3.37E-05	0.000127886	1.698108824	-2.471252585
GATM	-1.30539238	1.661876597	-3.87196904	0.00011468	0.000373853	0.551714117	-2.471509377
RP1-239B22.5	-1.305434761	0.284608295	-7.221042208	9.94E-13	3.82E-11	18.34459604	-2.471581982
IKZF3	-1.305468015	3.208064525	-6.023237432	2.37E-09	3.06E-08	10.82279268	-2.471638951
MSX2	-1.305894237	-4.420743743	-4.170446171	3.29E-05	0.000125225	1.720364242	-2.472369268
GZMH	-1.306394996	-1.446575039	-4.330170387	1.63E-05	6.78E-05	2.380188517	-2.473227575
TSPYL2	-1.30651792	5.994364616	-6.938476753	6.95E-12	2.07E-10	16.4580229	-2.473438315
VAT1L	-1.306732719	-2.571457249	-3.051930839	0.002331333	0.005295091	-2.223224422	-2.473806606
SLC16A1	-1.307022821	3.682218147	-5.418304898	7.47E-08	6.19E-07	7.505927821	-2.474304096
ADAMTSL2	-1.307333599	-3.133578307	-4.312367413	1.77E-05	7.27E-05	2.305459134	-2.474837156
TRIM32	-1.30757284	1.336368391	-4.615559539	4.41E-06	2.16E-05	3.618558926	-2.47524759
RNF151	-1.308373754	-3.144393387	-4.537772907	6.35E-06	2.96E-05	3.273494201	-2.476622108
MTUS2-AS1	-1.30851136	-3.131460312	-4.414135089	1.12E-05	4.88E-05	2.736636119	-2.476858343
NEIL1	-1.308612886	2.10192599	-4.972093604	7.74E-07	4.74E-06	5.271955343	-2.477032652
RP11-253E3.3	-1.30875041	-3.504612558	-4.069104941	5.08E-05	0.000182476	1.314153356	-2.477268785
Z83844.1	-1.309030684	-2.763890521	-4.697957728	2.98E-06	1.53E-05	3.990215659	-2.477750093
ZDHHC15	-1.309221078	-2.830076195	-3.380350383	0.000750777	0.00194815	-1.189022363	-2.478077106
PNMAL1	-1.309235097	-3.499445223	-3.288185564	0.001042055	0.002605269	-1.489695261	-2.478101186
KIAA0355	-1.309356326	4.11744741	-8.396585187	1.49E-16	1.80E-14	26.91282986	-2.478309428
AC114730.3	-1.309943993	-1.441111201	-3.29946041	0.001001503	0.002516964	-1.453349631	-2.479319149
MIR425	-1.310279879	-1.766275545	-5.87780834	5.59E-09	6.48E-08	9.995401016	-2.479896446
CD83	-1.310688118	6.371819752	-6.413196287	2.16E-10	3.93E-09	13.13405722	-2.480598281
CDHR3	-1.310961148	-1.646778716	-5.199196408	2.41E-07	1.71E-06	6.386202591	-2.481067778
COL6A3	-1.311564092	0.720084494	-4.207451852	2.81E-05	0.000108792	1.871103979	-2.482104906
DGKI	-1.311837262	-3.336861243	-4.496975323	7.67E-06	3.49E-05	3.094767146	-2.482574929
AP001347.6	-1.312320598	-1.131637102	-5.047890379	5.27E-07	3.41E-06	5.638578441	-2.483406788
GPRIN3	-1.314373873	3.716181112	-5.437181217	6.74E-08	5.68E-07	7.604437031	-2.486943743
BBC3	-1.314427298	3.338605262	-7.127488791	1.91E-12	6.56E-11	17.71242014	-2.487035841
CDKN1A	-1.315175451	5.433114117	-5.736473611	1.27E-08	1.33E-07	9.209433814	-2.488325902
LYPD3	-1.315193631	-0.656619719	-5.560649742	3.41E-08	3.15E-07	8.25674574	-2.488357259
ZNF853	-1.315392027	0.598050034	-6.333350273	3.56E-10	6.07E-09	12.64988327	-2.488699476
TUB	-1.315433009	-3.191071615	-4.542670811	6.20E-06	2.90E-05	3.29505534	-2.488770171
HCN2	-1.315474817	-0.089997841	-6.133890926	1.22E-09	1.73E-08	11.46495346	-2.488842294
TUBB4A	-1.31596074	-2.410924349	-3.652603874	0.000272508	0.000799568	-0.253438864	-2.489680719

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
CTSL2	-1.315977749	-3.140483613	-3.532940475	0.000428972	0.001192826	-0.673364544	-2.489710071
TRBV5-1	-1.31687111	-2.125181869	-4.984850148	7.26E-07	4.48E-06	5.333287949	-2.491252254
APOC1	-1.316994605	-1.450853345	-3.888240745	0.000107362	0.000352853	0.613255294	-2.491465515
TPPP3	-1.318080759	1.480928429	-3.351651155	0.000832157	0.00213433	-1.283520905	-2.493341956
LONRF2	-1.318439945	-0.824040951	-4.025682672	6.09E-05	0.000214643	1.143062793	-2.493962799
DMRTA2	-1.318795249	-3.053270878	-4.322683079	1.69E-05	6.98E-05	2.348723777	-2.494577082
RP11-360L9.7	-1.318808111	-2.680464953	-5.308658468	1.35E-07	1.04E-06	6.94012519	-2.494599321
BOK	-1.319319961	-3.052509474	-4.239492578	2.44E-05	9.63E-05	2.00265852	-2.495484532
SLC22A1	-1.319603351	-1.395117173	-4.382503455	1.29E-05	5.51E-05	2.601578974	-2.49597477
MIR181B1	-1.319616367	-2.276625332	-4.861360832	1.35E-06	7.69E-06	4.745859108	-2.495997289
RND2	-1.31963365	-1.185454268	-6.601675621	6.46E-11	1.36E-09	14.29913611	-2.496027191
LIN28B	-1.320028548	-4.36709647	-2.686633832	0.007332432	0.014573255	-3.251573088	-2.496710503
SLC6A19	-1.320405448	-0.002768885	-2.815630653	0.004959931	0.01032499	-2.903154358	-2.497362846
PLEKHS1	-1.320494228	-1.708276524	-4.52723405	6.66E-06	3.08E-05	3.227176716	-2.497516533
RP4-657D16.3	-1.320928203	2.587087797	-6.010112126	2.56E-09	3.28E-08	10.74734431	-2.49826792
PVRL4	-1.321288677	-0.147435058	-3.918130088	9.51E-05	0.000317299	0.726952572	-2.498892219
ZNF215	-1.321617483	-2.169304361	-3.498069106	0.000488415	0.001335526	-0.793167717	-2.499461808
RP11-136K14.1	-1.321823291	-2.592729016	-4.782179336	1.98E-06	1.07E-05	4.376605219	-2.499818395
OR5AU1	-1.321932651	-3.975565258	-4.395672741	1.22E-05	5.24E-05	2.657694025	-2.500007896
CTXN1	-1.322365148	-1.953014228	-5.428157108	7.08E-08	5.93E-07	7.557302859	-2.50075747
SLC8A2	-1.322576896	-1.947904327	-3.978368662	7.42E-05	0.000255399	0.958663466	-2.50112454
AC010982.1	-1.322679248	-1.379278067	-5.320880567	1.26E-07	9.76E-07	7.002652341	-2.501301989
TIMP3	-1.323134768	1.14432114	-3.329456305	0.000900633	0.002290303	-1.356061747	-2.50209188
REM2	-1.323985399	1.902466537	-6.316149701	3.96E-10	6.67E-09	12.54631595	-2.50356758
RP11-571M6.6	-1.324332291	-1.679894946	-5.501620408	4.73E-08	4.18E-07	7.943159127	-2.504169628
C3orf67	-1.324546179	-1.684002812	-4.73451903	2.50E-06	1.31E-05	4.157143303	-2.504540913
EGLN3	-1.324882555	-1.585526711	-4.041095012	5.71E-05	0.000202508	1.203586277	-2.505124935
CTD-2631K10.1	-1.324890168	-3.204881884	-4.796458926	1.85E-06	1.01E-05	4.442767996	-2.505138155
SLC7A3	-1.3274457	-3.600089583	-4.187030479	3.06E-05	0.000117581	1.787759968	-2.509579588
NDST3	-1.327565531	-2.276130726	-2.850397604	0.004452535	0.009389299	-2.806496634	-2.509788043
RP11-57H14.2	-1.327656086	-0.943255909	-6.591454273	6.90E-11	1.44E-09	14.23515705	-2.509945583
PCDH1	-1.327680328	-1.51698892	-4.44388916	9.78E-06	4.32E-05	2.864530153	-2.509987759
CNDP1	-1.328014189	-1.246569911	-4.568664945	5.49E-06	2.61E-05	3.409858437	-2.510568674
BPGM	-1.328368883	4.764595742	-5.355593142	1.05E-07	8.30E-07	7.180980661	-2.511185987
SOX15	-1.329156799	-2.336534826	-5.171651012	2.78E-07	1.94E-06	6.248535626	-2.512557825
GREB1	-1.329665509	-1.646744869	-3.63843912	0.000287739	0.00083815	-0.303857666	-2.513443937
MYL9	-1.329823095	0.028853942	-4.376996379	1.32E-05	5.64E-05	2.578161114	-2.513718495
RP5-105J14.4	-1.329928431	-2.85287447	-5.451769831	6.23E-08	5.30E-07	7.680791724	-2.513902037
CACNA1I	-1.330624376	0.542560988	-5.793559612	9.12E-09	1.00E-07	9.524733994	-2.515115016
AGAP3	-1.330649829	4.137463208	-6.153059358	1.08E-09	1.56E-08	11.57729914	-2.515159391
SMCR5	-1.331092037	-2.750934543	-4.810365033	1.73E-06	9.55E-06	4.507381572	-2.515930442
FSD1	-1.331234312	-2.225505748	-5.031279768	5.74E-07	3.68E-06	5.557782319	-2.51617857
RP11-527N22.1	-1.331515642	-4.23325732	-3.982389573	7.30E-05	0.000251662	0.974252189	-2.516669281
SUMO1P1	-1.33160173	-3.31662151	-4.068193226	5.10E-05	0.00018308	1.310542786	-2.516819458
PRR19	-1.331751603	-1.865383929	-4.913260447	1.04E-06	6.17E-06	4.991028842	-2.517080929
AC005014.5	-1.331972872	-2.562218995	-4.86253319	1.34E-06	7.66E-06	4.751369795	-2.517467009
TGFB1I1	-1.332120474	0.76738494	-5.715300404	1.43E-08	1.48E-07	9.093233424	-2.517724585
SYT6	-1.332542035	-4.025336077	-4.617905095	4.36E-06	2.14E-05	3.629051333	-2.51846038
HS3ST1	-1.332609984	-2.175167025	-4.231305927	2.53E-05	9.95E-05	1.968953644	-2.518578998
IL32	-1.332667043	1.244613664	-5.82605076	7.56E-09	8.51E-08	9.705496768	-2.518678611
BCAR3	-1.332705474	0.671293367	-5.12120409	3.61E-07	2.45E-06	5.998211592	-2.518745707
SDR42F1	-1.3329878	-2.143074642	-4.75955009	2.21E-06	1.18E-05	4.272141819	-2.519238656
NRARP	-1.333706362	0.889101484	-6.046686219	2.06E-09	2.70E-08	10.95796536	-2.520493724
RP11-176D17.3	-1.335555845	-3.036451635	-3.866740735	0.00011713	0.000380832	0.531993367	-2.523726978
PIK3R3	-1.336088976	0.639865116	-4.911911394	1.05E-06	6.20E-06	4.984624565	-2.524659764
PRDM1	-1.336102064	3.332532376	-7.032432952	3.67E-12	1.18E-10	17.07774531	-2.524682668
THEM5	-1.337246925	-2.982061515	-3.926804887	9.17E-05	0.000307349	0.760109225	-2.526686943
SNTA1	-1.337531807	0.873499712	-6.387316541	2.54E-10	4.53E-09	12.97651258	-2.527185924
PPP1R1B	-1.338185878	-2.435257478	-4.360450038	1.43E-05	6.01E-05	2.507971439	-2.528331927
CLSTN2	-1.340171919	-0.267608796	-2.225824003	0.026239234	0.045051365	-4.364392381	-2.531814874
RHOC	-1.340830475	3.659147549	-6.283645433	4.85E-10	7.90E-09	12.35131453	-2.532970851

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
RP11-229C3.2	-1.34091992	-2.358626139	-5.049976686	5.21E-07	3.38E-06	5.648744425	-2.533127897
CTF1	-1.34148729	-0.70738645	-7.166281863	1.46E-12	5.24E-11	17.97365444	-2.534124298
AL161668.12	-1.341855663	-2.722918693	-5.026092838	5.89E-07	3.76E-06	5.532604374	-2.534771436
RP11-34M16.4	-1.34206093	-2.630476058	-5.018860276	6.11E-07	3.88E-06	5.49753798	-2.53513211
ARHGEF12	-1.342530643	5.975598888	-4.826151868	1.60E-06	8.96E-06	4.580950532	-2.535957633
OSCP1	-1.342631714	0.067237431	-6.32695642	3.71E-10	6.29E-09	12.61135446	-2.536135301
ENDOU	-1.342795184	-0.851167999	-5.859581611	6.22E-09	7.13E-08	9.893035945	-2.536422683
CXCR3	-1.342866626	-0.19247827	-5.365911193	9.92E-08	7.92E-07	7.234198872	-2.536548289
THR8	-1.344056827	-2.149250331	-4.027770365	6.04E-05	0.000213042	1.151247939	-2.538641765
C1QC	-1.344683511	-0.350076796	-3.42855334	0.000630541	0.01668194	-1.028530577	-2.539744751
AC141928.1	-1.345319535	-2.992299635	-2.710395077	0.006830675	0.013698851	-3.1886041	-2.540864666
LRRC7	-1.345338721	-3.003251011	-3.829728287	0.000135939	0.000434187	0.393125778	-2.540898456
RP11-215P8.3	-1.345826033	0.926099737	-7.847208772	1.05E-14	7.79E-13	22.76604674	-2.541756863
SNX25	-1.346059146	1.579387287	-5.395757747	8.45E-08	6.88E-07	7.388685921	-2.542167597
CRABP2	-1.347243637	-0.118927655	-6.002831645	2.67E-09	3.41E-08	10.70555998	-2.544255641
MEIS3P1	-1.347650858	-3.07586545	-3.85198669	0.000124313	0.000400902	0.476481886	-2.544973895
CORO2B	-1.348115297	-1.091257612	-4.58131062	5.18E-06	2.48E-05	3.465935498	-2.545793317
DTX3	-1.348546435	0.820052397	-4.670409336	3.40E-06	1.72E-05	3.865257234	-2.54655422
AC004863.6	-1.348646704	-2.688636347	-3.117771993	0.001872183	0.004366877	-2.024189486	-2.546731214
AC007163.3	-1.348953709	-3.086931827	-4.651845674	3.71E-06	1.86E-05	3.781450473	-2.547273217
FAM101A	-1.349138783	-4.03503189	-4.137721889	3.79E-05	0.000141613	1.588137172	-2.547600011
PRMT5-AS1	-1.35075734	0.588497755	-5.014616747	6.24E-07	3.95E-06	5.476986009	-2.550459762
SIX4	-1.35092209	-3.951115391	-4.385247977	1.28E-05	5.45E-05	2.613260152	-2.550751032
CD1E	-1.351061103	-4.144961401	-3.810566785	0.000146763	0.000464173	0.321743414	-2.550996824
KL	-1.351163439	-2.583167697	-4.349494517	1.50E-05	6.27E-05	2.461639037	-2.551177783
IFITM3	-1.351455962	2.097689256	-4.23828212	2.45E-05	9.68E-05	1.997671038	-2.551695117
ZNF536	-1.351997883	-4.205658869	-4.089304107	4.66E-05	0.000169374	1.394346975	-2.552653792
TRPS1	-1.352633313	5.019908703	-4.698588189	2.97E-06	1.53E-05	3.993083647	-2.553778347
GAPDHP14	-1.352837546	-3.136282916	-3.506882946	0.000472704	0.001298867	-0.762996683	-2.554139895
ITPKA	-1.35325195	0.068268508	-5.406793172	7.95E-08	6.54E-07	7.446010811	-2.554873659
FGFR2	-1.356876014	-2.84245668	-3.830044968	0.000135767	0.000433707	0.394308433	-2.561299594
VIT	-1.359394219	-3.995032442	-4.196444589	2.94E-05	0.000113319	1.82613229	-2.565774212
AC009469.1	-1.359798291	3.151694163	-4.828841548	1.58E-06	8.85E-06	4.593507805	-2.566492939
TEX15	-1.35999664	-4.195245327	-3.867967378	0.000116551	0.000379262	0.536617843	-2.566845816
CD8A	-1.360422366	2.441044283	-5.90051692	4.89E-09	5.80E-08	10.12335292	-2.567603381
ASB2	-1.360500984	0.543025969	-5.664110365	1.91E-08	1.91E-07	8.813964801	-2.567743304
RBM38	-1.360859155	6.773785475	-6.66513794	4.28E-11	9.60E-10	14.69840612	-2.568380865
DLL3	-1.361019461	-2.834553044	-3.933201846	8.94E-05	0.00030108	0.784605146	-2.568666267
RP1L1	-1.361521794	-2.006236184	-5.650975649	2.06E-08	2.03E-07	8.742688522	-2.569560809
SNX22	-1.362871574	1.784668764	-5.546765694	3.69E-08	3.37E-07	8.182704736	-2.571966005
SCN3A	-1.363776366	-0.95477284	-4.11630115	4.15E-05	0.000153541	1.502129301	-2.57357953
RP11-288H12.3	-1.364348538	2.033337735	-5.224929415	2.10E-07	1.52E-06	6.515438382	-2.574600413
KCNJ5	-1.364909292	-0.872436714	-5.21837245	2.18E-07	1.57E-06	6.482450663	-2.575601316
RP11-134G8.8	-1.365126532	-2.181685005	-4.997059436	6.82E-07	4.25E-06	5.392129622	-2.575989177
RP11-461O14.1	-1.365935939	-1.549519772	-4.060978418	5.25E-05	0.000188226	1.281998352	-2.577434811
ITK	-1.3663077	3.970318117	-5.247685671	1.87E-07	1.38E-06	6.630228487	-2.578099063
KAL1	-1.36756998	-4.136396714	-3.777856074	0.00016714	0.000520277	0.200690617	-2.580355748
STK33	-1.368954775	-1.606854198	-4.198918454	2.91E-05	0.000112262	1.836229687	-2.582833734
LTK	-1.368970019	4.28370036	-4.43874305	1.00E-05	4.41E-05	2.842351113	-2.582861025
LRRC49	-1.36937126	-3.127961223	-3.921018888	9.39E-05	0.000314233	0.737986187	-2.583579468
ADAMTS4	-1.370048458	-1.324825076	-4.765836505	2.15E-06	1.15E-05	4.301114243	-2.58479248
TMOD1	-1.370368406	3.37241293	-4.860371289	1.35E-06	7.72E-06	4.741208737	-2.585365775
GRAP2	-1.37146076	3.208399395	-6.052741692	1.98E-09	2.63E-08	10.99295217	-2.587324057
RP11-727F15.9	-1.371500633	0.223340533	-6.611872647	6.05E-11	1.29E-09	14.36305368	-2.587395566
FHDC1	-1.371530949	3.024846863	-4.12460916	4.01E-05	0.000148802	1.535436086	-2.587449937
RP11-56N19.5	-1.3717405	-2.924027394	-4.88918739	1.17E-06	6.84E-06	4.877000548	-2.587825791
RPL36AP15	-1.372655246	-1.456187967	-6.774316608	2.09E-11	5.21E-10	15.39348878	-2.589467131
HEMGN	-1.372854347	3.903578908	-3.586860845	0.000350217	0.000997312	-0.48583431	-2.589824518
RP11-973H7.1	-1.372922262	-2.710286714	-4.537541295	6.35E-06	2.96E-05	3.272475173	-2.589946438
POU6F1	-1.373079129	2.488078304	-9.024182758	8.53E-19	1.72E-16	31.94761198	-2.590228063
RP11-412D9.4	-1.373285569	-1.215723734	-6.482006767	1.39E-10	2.66E-09	13.55580402	-2.590598734

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
PHOSPHO1	-1.373354644	1.73161561	-3.511986078	0.000463825	0.001278385	-0.745494046	-2.590722773
KLRK1	-1.373685515	2.291454845	-6.188781741	8.70E-10	1.30E-08	11.78753578	-2.591317002
PRINS	-1.376053712	-4.007381115	-4.162427444	3.41E-05	0.000129084	1.687870282	-2.595574165
LHX3	-1.377711641	-2.788785906	-5.103540333	3.96E-07	2.65E-06	5.911112926	-2.598558685
TBX21	-1.377982554	0.579627796	-6.462699515	1.58E-10	2.96E-09	13.43704889	-2.599046695
CECR7	-1.378102262	-2.424021524	-4.402884561	1.18E-05	5.10E-05	2.688492709	-2.599262361
GLP1R	-1.378963203	-4.086667617	-4.443554859	9.79E-06	4.33E-05	2.863088607	-2.600813956
LGMN	-1.379957953	1.294101299	-5.065144028	4.82E-07	3.15E-06	5.722770708	-2.602607858
KCNMA1	-1.380283172	-1.756274216	-4.032384419	5.92E-05	0.000209489	1.169352683	-2.603194615
RP11-382A20.2	-1.380508152	-3.39903481	-4.527357578	6.66E-06	3.08E-05	3.22771901	-2.6036006
SOSTDC1	-1.380627724	-4.145888551	-4.182551175	3.13E-05	0.000119465	1.769531374	-2.603816398
BNC2	-1.381745876	-1.574739525	-5.017781782	6.14E-07	3.89E-06	5.492313123	-2.605835252
CAMK2A	-1.382761302	0.083161913	-2.806730968	0.005097968	0.010569952	-2.927709156	-2.607669988
GPR63	-1.382768911	-3.651076977	-4.544478104	6.15E-06	2.88E-05	3.303016899	-2.607683742
VPREB3	-1.382932325	-1.238207676	-5.267215165	1.68E-07	1.26E-06	6.72911874	-2.60797913
RP11-642E20.4	-1.383414556	-3.316187614	-4.728665251	2.57E-06	1.35E-05	4.130333432	-2.608851011
SEMA3C	-1.383538082	-1.869867402	-3.391150764	0.000722117	0.001880707	-1.153255637	-2.609074396
IFNG	-1.384944615	-2.267468304	-5.12694185	3.51E-07	2.38E-06	6.026565599	-2.611619312
SHROOM3	-1.385132407	-3.253641276	-3.718322917	0.000211231	0.000638485	-0.017018528	-2.611959283
HRK	-1.385250988	-2.591233364	-4.137733199	3.79E-05	0.000141613	1.588182696	-2.612173978
PBK	-1.38557924	-0.456539747	-4.283889647	2.01E-05	8.12E-05	2.186538978	-2.612768387
NAV1	-1.385932946	3.846457198	-4.726630439	2.60E-06	1.36E-05	4.121021586	-2.613409038
CD3G	-1.386654792	1.678361944	-5.201083726	2.38E-07	1.70E-06	6.395660473	-2.614716973
ENHO	-1.387727825	-3.811555156	-4.18647637	3.07E-05	0.000117818	1.785503991	-2.616662445
TMEM198	-1.388144309	-2.831475191	-4.789884901	1.91E-06	1.04E-05	4.412284601	-2.617417944
PRL	-1.388661375	-3.98029026	-3.52138682	0.000447874	0.001237881	-0.713186491	-2.618356201
ISG20	-1.389323837	4.724624684	-6.778860085	2.02E-11	5.08E-10	15.4226387	-2.619558785
ADAM19	-1.38990999	4.017142114	-6.160525011	1.03E-09	1.50E-08	11.62114326	-2.620623302
NGEF	-1.390027013	-3.45597616	-4.26733419	2.16E-05	8.65E-05	2.117754624	-2.620835879
RAP1GAP	-1.390155827	2.188185304	-4.104932145	4.36E-05	0.000159846	1.456656305	-2.621069897
TMEM130	-1.390276983	-2.759785351	-5.521764018	4.24E-08	3.80E-07	8.049815282	-2.621290021
CCDC152	-1.390612996	-1.914744475	-4.166706767	3.35E-05	0.000127115	1.705203681	-2.621900608
RGS9	-1.391174653	-1.181814422	-4.9653941	8.01E-07	4.88E-06	5.239804567	-2.62292154
GPC6	-1.391268773	-4.015617272	-3.43837069	0.000608364	0.00161733	-0.99557143	-2.623092663
ETV7	-1.39135941	-2.160131735	-4.530346118	6.57E-06	3.05E-05	3.240843255	-2.623257464
MAGI1	-1.391854531	-2.915228058	-3.683481461	0.00024189	0.000719143	-0.142869981	-2.624157898
SDC2	-1.393013743	-1.143078763	-3.131272857	0.00178898	0.004200121	-1.982861872	-2.626267269
EPB49	-1.393984407	4.511528709	-4.014758056	6.38E-05	0.000223553	1.100298104	-2.628034849
RIPK4	-1.394092112	-3.134244063	-4.841897814	1.48E-06	8.36E-06	4.65455841	-2.628231054
PCDH9	-1.394298522	0.556367514	-3.738429441	0.000195242	0.000596	0.056133467	-2.628607109
AC013436.6	-1.394675061	-3.288800989	-5.029069631	5.80E-07	3.71E-06	5.547051042	-2.629293256
TCAP	-1.394868392	1.656870545	-8.00088378	3.27E-15	2.81E-13	23.90111304	-2.629645624
DDN	-1.394922106	0.309754622	-7.28489607	6.34E-13	2.63E-11	18.78035665	-2.629743531
RP11-309I15.1	-1.395082593	-3.324420091	-4.767285415	2.13E-06	1.14E-05	4.307797076	-2.630036084
FCGBP	-1.395187661	1.726261463	-5.677483007	1.77E-08	1.79E-07	8.886691913	-2.630227629
RGS13	-1.395371895	-2.434274195	-4.902939145	1.09E-06	6.45E-06	4.942073852	-2.630563534
GZMK	-1.395640031	-0.393458484	-4.727652525	2.58E-06	1.35E-05	4.125698445	-2.63105249
SLC44A5	-1.395690983	-2.636839005	-3.032231707	0.002487558	0.005611158	-2.281963275	-2.631145413
C20orf118	-1.396081113	-3.654295336	-4.813736242	1.70E-06	9.43E-06	4.523072552	-2.631857017
CD1C	-1.396116539	-1.505963817	-3.302035162	0.00099245	0.002497713	-1.445032565	-2.631921646
RARRES2	-1.396710832	-3.165284601	-4.176952643	3.20E-05	0.000122085	1.746774584	-2.633006042
TPO	-1.397989707	-4.33414018	-3.798555524	0.000153957	0.000484516	0.27717534	-2.635341101
CNR1	-1.398234225	-1.1614888	-4.385302227	1.28E-05	5.45E-05	2.613491121	-2.635787795
BLVRA	-1.398237352	2.878315789	-6.042923894	2.10E-09	2.75E-08	10.93624414	-2.635793508
ASTL	-1.398388644	0.131375622	-5.266135445	1.69E-07	1.26E-06	6.723642341	-2.636069931
SRMS	-1.398728413	-3.039691089	-4.884793045	1.20E-06	6.96E-06	4.856243295	-2.636690825
ARHGEF25	-1.399051703	-2.98977615	-4.656567821	3.63E-06	1.82E-05	3.802738543	-2.637281741
CRY1	-1.399054032	4.267147217	-6.940247477	6.87E-12	2.05E-10	16.46963223	-2.637286
SMAD6	-1.399256639	0.805195873	-5.486874816	5.14E-08	4.50E-07	7.865317332	-2.637656396
RP11-388M20.9	-1.399909539	-1.203984314	-4.622133289	4.27E-06	2.10E-05	3.64797829	-2.638850353
NLGN1	-1.400321099	-3.733586294	-3.259771671	0.001151095	0.00284222	-1.580749939	-2.63960325

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
DOCK9	-1.40046811	2.60460165	-6.192029509	8.53E-10	1.28E-08	11.80670587	-2.639872239
KRT8P34	-1.400731225	-1.834711824	-5.249766903	1.85E-07	1.36E-06	6.640750514	-2.640353737
DUOX1	-1.402190339	-3.262547324	-4.316627311	1.74E-05	7.15E-05	2.323313367	-2.64302549
PHLDB2	-1.404313832	0.83094618	-6.095107408	1.54E-09	2.11E-08	11.23864109	-2.646918606
GRIN3B	-1.40441393	-1.444422412	-5.753461339	1.15E-08	1.23E-07	9.302955333	-2.647102262
TGFBR3	-1.404641392	1.965455556	-6.360452375	3.01E-10	5.24E-09	12.81359777	-2.647519651
PLEK2	-1.404730101	-1.303689415	-3.722040644	0.000208185	0.000630823	-0.00352155	-2.647682447
PLEKHG4B	-1.40482372	-3.92698614	-4.039880757	5.74E-05	0.000203442	1.198809829	-2.647854266
TBX2	-1.405399777	-2.61456306	-4.619093383	4.34E-06	2.13E-05	3.634368871	-2.648911745
XKR6	-1.406472759	-0.371937349	-5.428197044	7.08E-08	5.93E-07	7.557511287	-2.650882563
ABCB6	-1.406678349	3.200221978	-5.816073609	8.01E-09	8.93E-08	9.649888708	-2.651260352
MOBP	-1.407144281	-3.449009356	-4.846177708	1.45E-06	8.23E-06	4.67460531	-2.65211674
CR1L	-1.408217273	0.156802619	-4.047810053	5.55E-05	0.000197486	1.230025981	-2.654089962
PNCK	-1.409038284	-1.939624915	-5.190501012	2.52E-07	1.79E-06	6.342669595	-2.655600786
LCA5	-1.409667967	0.173456645	-4.44218986	9.86E-06	4.35E-05	2.857203665	-2.656760111
KIF25-AS1	-1.410692638	-4.091944876	-4.090531873	4.64E-05	0.000168556	1.399233779	-2.658647739
TIGIT	-1.411352988	-0.144600389	-6.251180759	5.93E-10	9.31E-09	12.15748087	-2.659864932
RP11-501J20.5	-1.412263685	-3.112264306	-4.624230399	4.23E-06	2.08E-05	3.657371897	-2.661544496
MTND5P15	-1.412372245	-1.974441505	-5.811987738	8.20E-09	9.11E-08	9.627141696	-2.661744778
RP11-16E18.3	-1.412649189	0.556834832	-6.948973608	6.47E-12	1.95E-10	16.52688242	-2.662255783
SALL2	-1.412682094	-0.446096337	-4.429280837	1.05E-05	4.58E-05	2.80163481	-2.662316506
FGF9	-1.413499937	-2.565518863	-5.179520816	2.67E-07	1.88E-06	6.287796673	-2.663826163
WNT10A	-1.413699827	-1.151384316	-6.242961099	6.24E-10	9.76E-09	12.10855216	-2.66419527
LINC00570	-1.41441332	-2.728082413	-3.770088455	0.000172356	0.000534237	0.172094057	-2.665513189
ANKRD26P3	-1.414442626	-2.539740081	-2.694891351	0.007154426	0.014253934	-3.229752057	-2.665567333
PAM	-1.414638416	4.028956584	-6.28696128	4.75E-10	7.76E-09	12.37116447	-2.665929107
AKAP12	-1.414683421	-0.170568904	-4.208224687	2.80E-05	0.000108513	1.874265778	-2.666012271
GNAL	-1.414821514	-1.058415775	-6.809194644	1.65E-11	4.31E-10	15.61771621	-2.66626747
KIF5A	-1.41482903	-2.133326546	-4.80515762	1.77E-06	9.77E-06	4.483164812	-2.666281361
AQP1	-1.415181159	3.441254776	-4.588453696	5.01E-06	2.41E-05	3.497677135	-2.666932219
TMEM98	-1.415444077	-3.162384443	-3.807525465	0.000148554	0.000469385	0.310445589	-2.667418287
PTPRD	-1.4168566	-1.070374489	-3.408130832	0.000679108	0.001779501	-1.096798578	-2.6700312
ANKRD53	-1.417306371	-1.948902076	-6.290150681	4.66E-10	7.63E-09	12.390266662	-2.670863732
TSSK4	-1.417467842	-0.885988629	-5.945888022	3.75E-09	4.60E-08	10.38037762	-2.671162679
RP11-94L15.2	-1.417838418	3.876003952	-6.311554988	4.08E-10	6.84E-09	12.51869458	-2.671848892
RP11-39J41.2	-1.417978272	-3.182195769	-4.870128446	1.29E-06	7.41E-06	4.787102133	-2.672107913
C7orf13	-1.418663245	1.069916842	-6.903309787	8.81E-12	2.57E-10	16.22801813	-2.673376897
IGHE	-1.41880828	-2.926648207	-5.295303322	1.45E-07	1.10E-06	6.871957127	-2.673645666
LOXHD1	-1.419150026	1.721561789	-3.025071042	0.002546684	0.005730112	-2.303222349	-2.674279075
PGBD5	-1.419807322	-3.656541212	-4.761482306	2.19E-06	1.17E-05	4.281042998	-2.675497762
PRSS30P	-1.420199859	-1.489137854	-4.361853688	1.42E-05	5.98E-05	2.513915787	-2.676225826
ZBTB32	-1.420279659	-1.559384081	-5.825219938	7.59E-09	8.54E-08	9.700862743	-2.676373861
TMEM45A	-1.42036027	-1.982680825	-3.909330643	9.85E-05	0.000327342	0.693392218	-2.676523409
SDC1	-1.420523372	-0.998807346	-5.396798934	8.40E-08	6.85E-07	7.394089768	-2.676826016
BICC1	-1.420673353	-2.450118968	-3.862409251	0.000119197	0.000386838	0.515674963	-2.67710431
RP5-1024G6.7	-1.421005105	-1.336164009	-6.690468498	3.62E-11	8.32E-10	14.85875046	-2.67771999
SLC16A10	-1.422240779	0.146767991	-5.697004161	1.59E-08	1.62E-07	8.993146873	-2.680014449
IL21R	-1.422483096	2.868953408	-6.059977133	1.90E-09	2.53E-08	11.03479926	-2.680464627
CDHR1	-1.423591953	-0.835769513	-4.633301933	4.05E-06	2.01E-05	3.698053181	-2.682525625
TEAD4	-1.423994589	-2.018635273	-3.89181156	0.000105816	0.00034876	0.626793998	-2.683274386
SAG	-1.424496347	-0.816743205	-5.749670589	1.17E-08	1.25E-07	9.282063866	-2.685077016
PLEKHH2	-1.42538251	-1.54291337	-5.094661013	4.15E-07	2.76E-06	5.867437711	-2.685857027
RP1-153P14.5	-1.425531858	-2.833184053	-4.87598281	1.25E-06	7.23E-06	4.814680689	-2.686135083
TRH	-1.426331806	1.396945053	-2.275727436	0.023064595	0.040238101	-4.253851173	-2.687624908
C1orf61	-1.426705	-1.889718065	-4.985798681	7.22E-07	4.46E-06	5.337854411	-2.688320228
EDA	-1.426730102	-2.428062385	-5.048422919	5.26E-07	3.41E-06	5.641172977	-2.688367003
SIT1	-1.427023778	-0.225794969	-5.917544406	4.43E-09	5.32E-08	10.21959707	-2.688914306
C21orf90	-1.427496955	-3.867196423	-4.736123111	2.48E-06	1.31E-05	4.164495418	-2.689796364
TIAM1	-1.428314669	2.448788969	-5.32482812	1.24E-07	9.58E-07	7.022876744	-2.691321362
HSPD1P10	-1.428747081	-2.441058262	-4.666782809	3.46E-06	1.74E-05	3.848859916	-2.69212814
RP11-74C1.4	-1.428967332	-0.58128283	-5.486057942	5.16E-08	4.51E-07	7.861010823	-2.692539169

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
STOX2	-1.430292647	0.081200841	-3.430478321	0.000626134	0.001657579	-1.022075222	-2.695013775
DDAH1	-1.432148883	-0.631687048	-4.581149819	5.18E-06	2.48E-05	3.465221496	-2.698483532
FIBCD1	-1.432349857	-3.984225602	-4.326890191	1.66E-05	6.86E-05	2.366397327	-2.69885947
CEP112	-1.433410566	-1.504196428	-5.011016779	6.36E-07	4.01E-06	5.459563875	-2.700844475
RP4-659J6.2	-1.434373047	1.208734043	-6.969834107	5.62E-12	1.73E-10	16.66400881	-2.70264692
LRRC43	-1.434474234	-0.276475773	-7.181943019	1.31E-12	4.75E-11	18.07948096	-2.702836484
SERTAD1	-1.435245929	3.69941501	-7.299754895	5.71E-13	2.40E-11	18.88225473	-2.704282613
TMPRSS4	-1.435965607	-2.836614717	-4.780463072	2.00E-06	1.08E-05	4.368665818	-2.705631962
FBN3	-1.436116849	-3.03448642	-5.107938659	3.87E-07	2.60E-06	5.932773997	-2.705915616
FZD7	-1.436414153	0.761882399	-5.725984955	1.34E-08	1.41E-07	9.151820775	-2.706473294
FKBP1B	-1.436524029	0.395384208	-6.820102483	1.54E-11	4.09E-10	15.68805763	-2.706679428
NBEA	-1.43665265	1.917529118	-5.380324282	9.18E-08	7.39E-07	7.308700507	-2.706920749
TPST1	-1.43678435	2.242806798	-5.435186958	6.82E-08	5.73E-07	7.59401438	-2.707167869
ASIC1	-1.437243783	-0.151776369	-5.176711282	2.71E-07	1.90E-06	6.273773906	-2.708030116
AC073871.2	-1.437581432	-0.085382835	-6.55003765	9.02E-11	1.83E-09	13.97684851	-2.708663978
RP11-109G23.3	-1.438111448	1.115268351	-7.508895943	1.28E-13	6.67E-12	20.33629307	-2.709659268
EGR4	-1.438473646	-2.810242621	-4.567847634	5.52E-06	2.62E-05	3.406239202	-2.710339631
AN05	-1.43915037	-3.418833652	-3.883695187	0.000109361	0.000358705	0.596038322	-2.711611266
GCNT4	-1.439495306	-0.421754749	-4.990846649	7.04E-07	4.36E-06	5.362170461	-2.712259667
CTD-2552B11.3	-1.439575681	-3.507023408	-4.445545786	9.71E-06	4.29E-05	2.871675249	-2.712410776
TSPAN6	-1.440869814	-2.433600287	-4.188780089	3.04E-05	0.000116761	1.794885152	-2.714844966
KLHL30	-1.440903867	-2.532157711	-4.184880107	3.09E-05	0.000118429	1.779006644	-2.714909048
AF131215.4	-1.441200095	-1.89396892	-5.198319082	2.42E-07	1.72E-06	6.381807176	-2.715466555
SNPH	-1.441702995	1.383562281	-5.97399008	3.17E-09	3.98E-08	10.54049589	-2.716413289
MXRA8	-1.441791233	-1.67406212	-5.096953359	4.10E-07	2.73E-06	5.878706282	-2.716579435
DMD	-1.44184678	-0.328677973	-4.658535391	3.60E-06	1.81E-05	3.811614722	-2.716684031
KIAA1614	-1.441913565	0.196372169	-5.51120601	4.49E-08	3.99E-07	7.993867036	-2.716809793
ANKRD20A5P	-1.442058124	-0.430990036	-5.006853868	6.49E-07	4.07E-06	5.439432213	-2.717082034
FAM127A	-1.442154004	0.758708153	-4.03252534	5.92E-05	0.000209403	1.169905949	-2.717262615
RP11-673E1.3	-1.442321232	-2.077013137	-5.042082486	5.43E-07	3.50E-06	5.610299294	-2.717577601
GLB1L2	-1.44237001	-1.304549385	-4.449231433	9.54E-06	4.22E-05	2.887580787	-2.717669484
BEND4	-1.442730279	0.880688359	-4.12587732	3.99E-05	0.000148081	1.540525854	-2.718348224
NR4A1	-1.443485878	5.105369062	-5.898828033	4.94E-09	5.85E-08	10.11382098	-2.719772308
ACBD7	-1.443952618	-1.560730383	-6.314860015	4.00E-10	6.71E-09	12.53856105	-2.72065235
AMOTL1	-1.444181998	3.805872296	-4.663214089	3.52E-06	1.77E-05	3.832735887	-2.721084952
AC015804.1	-1.445628929	-0.988832513	-5.437661286	6.72E-08	5.67E-07	7.606946573	-2.723815396
FAM178B	-1.446206695	-1.239542903	-3.791354217	0.000158428	0.000496685	0.250520319	-2.724906439
GNLY	-1.446397593	2.530678174	-5.372329999	9.59E-08	7.67E-07	7.267354512	-2.725267023
AC023137.2	-1.44695669	-2.776877788	-5.175957747	2.72E-07	1.91E-06	6.270014136	-2.726323369
LHX4	-1.447721176	-1.970154228	-4.824160274	1.62E-06	9.04E-06	4.571656716	-2.727768433
RBM20	-1.447761379	-1.857286559	-5.332779126	1.19E-07	9.21E-07	7.063655022	-2.727844449
EOMES	-1.448104033	-0.667344616	-6.128007601	1.26E-09	1.78E-08	11.43053679	-2.728492414
RP11-666A8.9	-1.449550424	-1.748509795	-5.783130236	9.69E-09	1.06E-07	9.466911488	-2.731229269
ABHD12B	-1.44969483	-2.016569486	-4.082562352	4.79E-05	0.000173676	1.367538485	-2.731502663
CYP4F35P	-1.450387642	-2.207253783	-4.889657103	1.17E-06	6.83E-06	4.879220355	-2.732814704
RP11-779O18.2	-1.451487074	-1.609480639	-5.589396064	2.91E-08	2.74E-07	8.410598352	-2.734898088
MIR191	-1.45198847	-1.064170556	-6.110327486	1.40E-09	1.94E-08	11.32729524	-2.735848742
NUDT10	-1.452157108	-3.924014024	-4.622090177	4.27E-06	2.10E-05	3.647785223	-2.736168558
RHD	-1.452733914	0.778268361	-3.242283759	0.001223359	0.003002237	-1.636406564	-2.737262729
TRIM10	-1.452879251	2.012916252	-3.466336324	0.000549112	0.001478942	-0.901179462	-2.737538493
SPRY1	-1.452997871	3.933113448	-4.928594077	9.63E-07	5.75E-06	5.06393916	-2.737763585
PKDCC	-1.453522145	-2.238013854	-4.129292866	3.93E-05	0.000146236	1.55424169	-2.738758668
BTNL10	-1.454031894	-2.947595626	-4.373990051	1.34E-05	5.70E-05	2.56538921	-2.739726528
ULBP1	-1.454099733	-3.179142216	-4.997543094	6.81E-07	4.25E-06	5.394463397	-2.739855358
RUVBL1-AS1	-1.454126188	-1.979055573	-6.527109833	1.04E-10	2.08E-09	13.83449567	-2.7399056
SCN4B	-1.455745795	-1.724182033	-4.815126677	1.69E-06	9.38E-06	4.52954726	-2.742983216
FASLG	-1.456065696	-2.290644995	-5.671398987	1.83E-08	1.84E-07	8.853583999	-2.743591509
RP11-281P23.1	-1.457328348	-3.743531551	-4.540061899	6.28E-06	2.93E-05	3.283567826	-2.745993761
SNAI1	-1.457416863	2.285930214	-5.418344991	7.47E-08	6.19E-07	7.506136709	-2.746162244
KCNN2	-1.457455115	-3.752892093	-2.939062722	0.003364648	0.007319259	-2.554709521	-2.746235057
CDK5R1	-1.458052824	2.172040658	-6.341999789	3.37E-10	5.79E-09	12.70206179	-2.74737306

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
HPN	-1.458888912	-2.762331661	-5.200715745	2.39E-07	1.70E-06	6.393816163	-2.748965711
SLC6A20	-1.459304685	-3.052748172	-4.939925667	9.10E-07	5.47E-06	5.11795931	-2.749758056
MAOB	-1.46107033	-3.675236858	-4.743720876	2.39E-06	1.26E-05	4.199351259	-2.753125413
YPEL4	-1.462202064	2.450996097	-4.635995287	4.00E-06	1.99E-05	3.710146248	-2.755285971
WSCD1	-1.46220302	-3.229475355	-3.374282913	0.000767339	0.001984858	-1.209066545	-2.755287797
DBH-AS1	-1.462529051	-0.407743308	-5.58657726	2.95E-08	2.77E-07	8.395478872	-2.755910527
HIST2H2BB	-1.462796455	-2.008266941	-4.44947823	9.53E-06	4.22E-05	2.8886463	-2.756421384
TMEM151B	-1.462871482	-3.457903823	-4.963582705	8.08E-07	4.92E-06	5.231118816	-2.756564734
ZNF354C	-1.462913615	0.486884237	-5.24744815	1.87E-07	1.38E-06	6.62902791	-2.756645241
PPARD	-1.462915928	3.742658487	-7.656348739	4.35E-14	2.62E-12	21.38355601	-2.75664966
ANKFN1	-1.463410369	-3.223223102	-4.107357453	4.32E-05	0.000158557	1.466346678	-2.757594581
RP3-453I5.2	-1.463646398	-1.29592239	-5.479712096	5.34E-08	4.65E-07	7.827576526	-2.758045769
GPM6B	-1.464226703	-0.511809803	-2.933119075	0.003429192	0.007446526	-2.571825236	-2.759155379
TNF	-1.468016305	3.438704982	-4.989285374	7.10E-07	4.39E-06	5.354647301	-2.766412522
MATN1	-1.468022421	0.395647657	-6.512358211	1.15E-10	2.26E-09	13.74314962	-2.766424252
APBB2	-1.468423647	0.655841686	-4.211727859	2.75E-05	0.000107145	1.88860489	-2.767193725
ZNF662	-1.468656406	1.650161385	-4.344680175	1.53E-05	6.39E-05	2.441314055	-2.76764021
CTRC	-1.468800435	-0.392402312	-5.484307159	5.21E-08	4.54E-07	7.851782844	-2.767916526
PLA2G7	-1.469729627	-2.812420586	-4.487931015	7.99E-06	3.61E-05	3.055355756	-2.769699822
RP11-231D20.2	-1.471069841	-1.375835775	-5.968469283	3.28E-09	4.10E-08	10.50898421	-2.772273974
MET	-1.471711101	-2.726909912	-4.149556003	3.60E-05	0.000135628	1.635838302	-2.773506489
COL6A2	-1.473059832	1.636808006	-5.67316242	1.82E-08	1.83E-07	8.863176785	-2.776100567
RHCE	-1.473438832	1.473977275	-4.285928431	1.99E-05	8.07E-05	2.195027465	-2.776829953
RP11-881M11.2	-1.474762659	-2.068015167	-6.56517365	8.18E-11	1.69E-09	14.07107562	-2.779379161
KBTBD12	-1.475686278	-3.555209317	-3.937618643	8.78E-05	0.00029659	0.801541	-2.781159099
COL6A1	-1.475808034	0.908959005	-4.986331279	7.20E-07	4.45E-06	5.340418829	-2.781393825
MAF	-1.47592912	1.612289037	-6.699815867	3.41E-11	7.87E-10	14.91806085	-2.781627278
IRS1	-1.476492452	0.940604757	-5.918855269	4.39E-09	5.28E-08	10.22701718	-2.782713637
A2M	-1.476918189	-0.140144362	-4.14113153	3.74E-05	0.000139955	1.601867294	-2.783534933
FRMD6	-1.477006534	-0.70448503	-4.413128475	1.12E-05	4.90E-05	2.732323783	-2.783705392
PRRT2	-1.477460497	-2.286706998	-6.097148183	1.52E-09	2.09E-08	11.25051628	-2.784581458
IGSF9	-1.477474867	-1.977325169	-4.882355132	1.21E-06	7.03E-06	4.844735182	-2.784609195
CCDC50	-1.477477037	4.523516176	-4.998886997	6.76E-07	4.22E-06	5.400949202	-2.784613384
RP11-274K13.5	-1.477678023	-3.118469859	-2.807168904	0.005091095	0.010557438	-2.926502652	-2.785001343
FAM3B	-1.477857146	-4.151982961	-4.643753727	3.86E-06	1.92E-05	3.745019045	-2.785347146
RP11-11N9.4	-1.478003182	-1.664591098	-3.934444224	8.89E-05	0.000299913	0.78936708	-2.785629105
ADAMTS1	-1.478236789	-1.909845259	-3.827487192	0.000137165	0.000437182	0.38475905	-2.786080202
PRF1	-1.478398823	3.001247168	-6.095601895	1.53E-09	2.10E-08	11.24151815	-2.786393133
RP11-161M6.2	-1.479136345	-0.982572959	-5.585899145	2.97E-08	2.78E-07	8.391842672	-2.787817934
SNX9	-1.479366558	5.223100901	-6.239391982	6.38E-10	9.97E-09	12.08732506	-2.788262826
C15orf48	-1.479743458	-0.49283646	-4.746591547	2.36E-06	1.25E-05	4.212534797	-2.788991345
DFNB31	-1.479964344	2.99943183	-6.418708236	2.08E-10	3.81E-09	13.16768754	-2.789418391
SPSB1	-1.48073058	0.144601279	-5.355728087	1.05E-07	8.30E-07	7.181676053	-2.790900284
WBP5	-1.481196357	-1.398424128	-3.572339179	0.000369977	0.001046182	-0.536612027	-2.791801479
HGFAC	-1.481587843	-2.147583611	-5.784969437	9.58E-09	1.05E-07	9.477101289	-2.792559157
DMPK	-1.481593269	2.022704572	-7.260930596	7.51E-13	3.04E-11	18.61640213	-2.792569661
RP11-136K14.2	-1.48181774	-2.782365304	-5.424724501	7.22E-08	6.03E-07	7.539393284	-2.793004194
B3GNT4	-1.484331558	-3.149117311	-4.980400447	7.42E-07	4.57E-06	5.311877075	-2.797875095
KANK3	-1.486860361	-0.253429255	-7.612673221	6.00E-14	3.48E-12	21.0714596	-2.802783602
RP11-643M14.1	-1.487295919	-2.280208428	-6.18694184	8.80E-10	1.31E-08	11.77667983	-2.803629907
TMCC2	-1.487610706	4.706077719	-4.393549914	1.23E-05	5.28E-05	2.648637578	-2.804241708
UGT8	-1.487768644	-0.233420494	-5.534305289	3.95E-08	3.58E-07	8.116404213	-2.804548717
RP11-283I3.4	-1.487910232	-3.47348188	-5.216806404	2.20E-07	1.58E-06	6.474577791	-2.804823973
TGFBR3L	-1.488186996	-0.942168299	-7.15396482	1.59E-12	5.65E-11	17.89057183	-2.805362096
FAM71F1	-1.488380709	-3.124404054	-4.721998754	2.65E-06	1.38E-05	4.099840057	-2.805738804
IL2RB	-1.489102457	2.149010329	-6.21382779	7.46E-10	1.14E-08	11.93561272	-2.807142803
HSPB6	-1.489353296	-3.378613737	-5.066187439	4.80E-07	3.14E-06	5.727870983	-2.807630918
MAGI2-AS3	-1.489493512	-2.634296741	-4.100733464	4.44E-05	0.000162365	1.439893472	-2.807903806
GPR153	-1.489713941	1.470184534	-4.956605354	8.37E-07	5.08E-06	5.197690225	-2.808332858
SDC3	-1.489862696	0.525161185	-5.477878276	5.40E-08	4.69E-07	7.817921493	-2.808622437
STX1A	-1.490020525	2.058622881	-4.396248004	1.21E-05	5.23E-05	2.66014895	-2.808929714

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
SOX6	-1.490111317	2.353976264	-4.062997246	5.21E-05	0.000186732	1.289980632	-2.809106492
WHAMMP3	-1.491309247	2.697596891	-4.490977893	7.88E-06	3.57E-05	3.06862428	-2.811439979
TULP4	-1.492675056	5.150918705	-8.977810684	1.26E-18	2.31E-16	31.56494238	-2.814102848
FOXI1	-1.49268337	-2.636318401	-4.471291901	8.63E-06	3.87E-05	2.983048637	-2.814119065
LPAR3	-1.493334648	-2.632187332	-3.226715425	0.001291199	0.003145633	-1.685707172	-2.815389734
ALOX15	-1.493388834	-0.620421677	-3.355531419	0.000820694	0.002107671	-1.270790361	-2.815495478
PEAR1	-1.493560372	2.021657329	-4.981098425	7.40E-07	4.56E-06	5.315234369	-2.815830263
MEX3A	-1.494972625	-0.815294195	-4.36202653	1.42E-05	5.98E-05	2.514647886	-2.818588027
CTA-363E6.6	-1.498201552	-1.363998249	-3.951214022	8.30E-05	0.000281965	0.853787136	-2.824903435
KCNMB4	-1.498363298	0.700595377	-5.572657144	3.19E-08	2.97E-07	8.320919493	-2.825220163
SPTB	-1.498435441	4.966267447	-3.793701035	0.000156957	0.000492702	0.259201462	-2.825361443
CD248	-1.498685582	-0.111188111	-6.152022536	1.09E-09	1.57E-08	11.57121403	-2.82585136
NCR2	-1.498913661	-4.179493811	-4.205752436	2.83E-05	0.000109492	1.864153348	-2.82629814
SYDE1	-1.499296517	-3.064866409	-4.416950948	1.11E-05	4.82E-05	2.748704288	-2.82704827
PLAG1	-1.49981145	1.270409887	-5.450120756	6.28E-08	5.34E-07	7.672151024	-2.828057493
MAL	-1.500950912	0.352292221	-5.728805184	1.32E-08	1.39E-07	9.167302261	-2.830292017
HEY2	-1.501171675	-3.865113202	-4.648739596	3.77E-06	1.88E-05	3.767459148	-2.830725145
LINC00565	-1.501289539	-0.827378709	-5.453104029	6.18E-08	5.27E-07	7.687784362	-2.830956417
CNTD2	-1.502109724	0.118400223	-6.145289418	1.13E-09	1.63E-08	11.53172047	-2.832566299
DLL1	-1.502190477	0.183708016	-5.089934227	4.25E-07	2.82E-06	5.844217295	-2.832724853
RP11-553L6.2	-1.502280976	-2.114622182	-6.701901319	3.36E-11	7.79E-10	14.93130369	-2.832902552
ANKRD36BP2	-1.504041315	1.098794073	-5.605402701	2.66E-08	2.53E-07	8.49659074	-2.836361296
BAAT	-1.504864098	-3.334408286	-5.454116982	6.15E-08	5.25E-07	7.693094408	-2.837979363
TMEM119	-1.505008235	-0.531957522	-6.419011606	2.08E-10	3.81E-09	13.16953928	-2.838262913
AC055876.1	-1.505327498	-3.92723531	-3.762992619	0.000177254	0.000547185	0.146020718	-2.838891079
PCYT1B	-1.507064497	-0.409190136	-4.129042153	3.93E-05	0.000146338	1.553234526	-2.842311151
RP11-13G14.4	-1.50715201	-2.610141231	-4.715619461	2.74E-06	1.42E-05	4.070698954	-2.84248357
AC004893.10	-1.508836236	-0.326488479	-5.60572886	2.65E-08	2.53E-07	8.498345366	-2.84580387
CTD-2535L24.2	-1.509745514	-0.785082263	-5.329337889	1.21E-07	9.37E-07	7.0459989	-2.847598041
CACHD1	-1.510248327	1.248992881	-4.864585294	1.32E-06	7.59E-06	4.761018791	-2.848590669
PRTFDC1	-1.510985729	-2.084856431	-4.115879944	4.16E-05	0.000153759	1.50044242	-2.850047035
MYO1C	-1.511106649	3.596967297	-7.287370027	6.23E-13	2.59E-11	18.79730944	-2.850285924
C3orf45	-1.5111832621	-2.597388816	-4.579216393	5.23E-06	2.50E-05	3.456638397	-2.851720564
CPT1C	-1.512394446	-2.027164039	-5.738450883	1.25E-08	1.32E-07	9.22030583	-2.852831319
RP11-102F4.3	-1.512793292	-1.785592987	-3.301914819	0.000992872	0.002498136	-1.445421444	-2.853620118
RP11-215P8.1	-1.51321992	-2.057804432	-5.357758145	1.04E-07	8.22E-07	7.192139239	-2.854464104
C1QB	-1.517290404	-0.340984588	-3.798151275	0.000154204	0.000485197	0.275677743	-2.862529189
RP11-344E13.3	-1.517936034	-2.856878422	-3.289599833	0.001036886	0.00259432	-1.485142902	-2.863810505
PFN2	-1.518360866	-1.484657966	-5.943246118	3.81E-09	4.67E-08	10.36536097	-2.864653937
RP11-844P9.2	-1.519161848	-2.400864646	-3.828611238	0.000136549	0.000435923	0.388954881	-2.86624483
LOXL1	-1.520184009	-1.229709728	-4.816008919	1.68E-06	9.34E-06	4.533656445	-2.868276309
B3GNT3	-1.520315907	-3.560852127	-5.133216851	3.40E-07	2.32E-06	6.057608996	-2.868538552
HBG1	-1.521352115	3.96506114	-3.046987737	0.002369665	0.005375216	-2.237998868	-2.870599603
AIRE	-1.522163407	-3.015696415	-5.108368638	3.86E-07	2.59E-06	5.934892529	-2.872214325
LINC00189	-1.523039452	-2.866763893	-3.580558834	0.000358668	0.001018144	-0.507895148	-2.873958944
MFAP2	-1.524205882	-3.225886449	-4.76906407	2.11E-06	1.13E-05	4.316003453	-2.876283501
RAI14	-1.524491135	-2.00278659	-4.176475854	3.21E-05	0.000122289	1.744837906	-2.876852262
RP11-463O12.3	-1.524492432	-1.631829895	-6.283258814	4.86E-10	7.90E-09	12.34900071	-2.876854849
KHDRBS3	-1.524621881	0.068349456	-5.151512283	3.09E-07	2.13E-06	6.148325215	-2.877112993
LRRC73	-1.524924783	-1.452699096	-6.627341178	5.47E-11	1.19E-09	14.46018735	-2.877717123
CYGB	-1.525011895	-0.975414519	-5.323502328	1.25E-07	9.63E-07	7.016082766	-2.877890888
SSTR3	-1.526315945	-0.362703561	-5.881878153	5.46E-09	6.36E-08	10.01829853	-2.880493385
DMWD	-1.526571238	2.550104511	-7.921239477	6.00E-15	4.77E-13	23.31041666	-2.881003151
PTPRG	-1.526666884	-1.162168881	-3.694497794	0.000231771	0.000692819	-0.103202415	-2.881194159
APC2	-1.526974807	0.577074653	-5.098491874	4.06E-07	2.72E-06	5.886271915	-2.881809174
RP11-222A11.1	-1.527149455	-2.136588273	-4.375856822	1.33E-05	5.66E-05	2.573318892	-2.882158058
REEP5	-1.527152627	4.486263763	-8.585667995	3.24E-17	4.51E-15	28.39670623	-2.882164395
SLFN13	-1.527232545	4.430136565	-7.821711513	1.27E-14	9.26E-13	22.57960726	-2.882324057
TRPM6	-1.527587854	0.102477134	-4.128868157	3.94E-05	0.000146419	1.552535587	-2.883034006
ABCG2	-1.527992442	0.318818155	-4.660806046	3.56E-06	1.79E-05	3.821862657	-2.883842636
IL13	-1.528038298	-1.164375111	-7.231059969	9.26E-13	3.60E-11	18.41273157	-2.883934299

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
NFATC4	-1.528316017	-2.166692994	-4.209205119	2.78E-05	0.000108136	1.878277702	-2.88448951
HIST1H2AJ	-1.528842394	4.952010185	-7.314497619	5.14E-13	2.22E-11	18.98354158	-2.885542129
FFAR1	-1.529009659	-0.759878145	-5.14853892	3.14E-07	2.16E-06	6.133561205	-2.885876696
KIF21A	-1.529436681	-0.535735077	-5.072825186	4.64E-07	3.05E-06	5.760340214	-2.88673101
LMAN1L	-1.530123937	-0.921674073	-5.868141152	5.92E-09	6.81E-08	9.941071064	-2.888106488
IL21R-AS1	-1.530263914	-2.639861221	-5.502379179	4.72E-08	4.17E-07	7.947169998	-2.88838672
CTLA4	-1.531901214	-0.766125595	-5.541828617	3.79E-08	3.45E-07	8.156418261	-2.89166658
STRA6	-1.531984863	-4.104470404	-4.878650046	1.23E-06	7.14E-06	4.827255909	-2.891834247
RP11-344A16.2	-1.532450171	-1.190751789	-7.245839888	8.35E-13	3.32E-11	18.51341256	-2.892767093
RP11-87G24.3	-1.534238473	-3.491506862	-4.865955386	1.31E-06	7.55E-06	4.767463128	-2.896355063
APLN	-1.5349546	-2.214730389	-4.651295725	3.72E-06	1.86E-05	3.778972573	-2.897793118
C17orf107	-1.535347266	3.447804118	-6.340916216	3.40E-10	5.82E-09	12.69552149	-2.898581932
ELAVL4	-1.536852772	-4.124780254	-4.332652203	1.62E-05	6.71E-05	2.390629716	-2.90160829
HSPB7	-1.536901968	-4.112178582	-4.739375561	2.44E-06	1.29E-05	4.179409955	-2.901707236
MMEL1	-1.536972102	-1.162168136	-5.147431985	3.16E-07	2.17E-06	6.128066871	-2.901848302
AC009237.1	-1.537050937	-3.050787606	-4.655068022	3.66E-06	1.83E-05	3.795975	-2.902006875
PAQR9	-1.537944471	-0.804509948	-3.687665639	0.000237998	0.000709285	-0.127817198	-2.90380479
RP4-800J21.3	-1.53801127	-0.49636065	-6.356823614	3.07E-10	5.34E-09	12.79164019	-2.903939244
AC006946.15	-1.539598996	-3.434535519	-5.177493174	2.70E-07	1.89E-06	6.277675708	-2.907136871
HORMAD2	-1.539701393	-3.09829135	-5.250349499	1.84E-07	1.36E-06	6.643696637	-2.907343214
FRK	-1.53972122	-3.726577342	-4.147896852	3.63E-05	0.00013652	1.629142628	-2.90738317
BCL11B	-1.539823168	4.039101808	-5.934943183	4.00E-09	4.87E-08	10.31820745	-2.907588628
RGS1	-1.539933572	4.030846584	-6.557114127	8.62E-11	1.76E-09	14.02087726	-2.907811144
RP11-374A22.1	-1.541270131	-4.249890541	-4.052899412	5.43E-05	0.000193862	1.250093071	-2.91050628
RP11-455F5.3	-1.541454445	-1.276617356	-7.328278662	4.67E-13	2.03E-11	19.0783879	-2.910878152
CAMK4	-1.542492119	3.330485665	-5.400715798	8.22E-08	6.73E-07	7.41442744	-2.912972576
SPIN3	-1.543251441	-1.086635239	-4.937488821	9.21E-07	5.53E-06	5.106332349	-2.91450614
RP11-519G16.3	-1.543448971	-0.478002542	-4.466369261	8.82E-06	3.95E-05	2.961706275	-2.914905213
CTA-85E5.10	-1.543889936	-4.145762252	-4.449306567	9.54E-06	4.22E-05	2.887905162	-2.915796302
UCA1	-1.544984112	-3.344279359	-5.09550022	4.13E-07	2.75E-06	5.871562472	-2.918008553
COL6A6	-1.544986185	-1.735085143	-3.291987791	0.001028213	0.00257654	-1.477452002	-2.918012747
MBL1P	-1.545098613	-3.820663621	-4.603522596	4.67E-06	2.27E-05	3.56479438	-2.918240152
PRELID1P3	-1.545100692	-4.050611851	-4.834794908	1.53E-06	8.64E-06	4.621325955	-2.918244359
PPIAP16	-1.545120449	-1.946486188	-5.451925439	6.22E-08	5.30E-07	7.681607195	-2.918284322
MYO6	-1.545588059	0.176693815	-3.866694684	0.000117152	0.00038084	0.531819782	-2.919230358
C3orf70	-1.546554459	-2.678867012	-4.178915612	3.17E-05	0.00012117	1.754750264	-2.921186481
DKK3	-1.546879497	-3.179417855	-5.666469097	1.89E-08	1.88E-07	8.826781067	-2.921844697
IGF2	-1.548277846	-0.047209554	-4.210300428	2.77E-05	0.000107685	1.882760768	-2.924678101
SFRP2	-1.548736342	-3.285301309	-4.612053205	4.48E-06	2.19E-05	3.602883528	-2.925607727
ELL2	-1.551496551	5.467515458	-6.563099127	8.29E-11	1.70E-09	14.05814913	-2.931210449
NAP1L3	-1.552386337	-2.563571175	-4.551475825	5.95E-06	2.80E-05	3.33387222	-2.933018838
STK24	-1.553084477	6.539363672	-12.3296958	1.05E-32	1.60E-29	63.30418657	-2.934438508
HIF3A	-1.55402111	-3.953207579	-3.498016091	0.000488511	0.001335603	-0.793348969	-2.936344238
C12orf42	-1.554949682	-0.585920538	-5.80433631	8.57E-09	9.49E-08	9.584584647	-2.938234785
RP11-46D6.1	-1.55561066	0.601751419	-8.998617174	1.06E-18	2.03E-16	31.73643257	-2.939581261
HR	-1.555754424	-1.484690037	-5.136468679	3.34E-07	2.29E-06	6.073710483	-2.939874204
ZNF135	-1.556084088	0.124034982	-4.570835038	5.44E-06	2.59E-05	3.419471105	-2.940546058
TREM2	-1.556238568	-2.729850101	-4.886771314	1.19E-06	6.91E-06	4.865585697	-2.940860941
MEIS3	-1.557220259	-3.313324697	-5.435699052	6.80E-08	5.72E-07	7.596690408	-2.94286275
ART4	-1.557954156	-0.616148931	-3.826189706	0.00013788	0.000439034	0.379917296	-2.94436016
SLC22A23	-1.558260154	2.72206468	-4.763878973	2.17E-06	1.16E-05	4.292088574	-2.944984731
PARK2	-1.559102351	-1.712171278	-4.648225161	3.78E-06	1.89E-05	3.765142739	-2.946704416
DUOXA1	-1.559980013	-2.127444838	-5.83487083	7.18E-09	8.11E-08	9.754730091	-2.948497587
TRBC2	-1.560425287	3.587762229	-6.896748277	9.21E-12	2.66E-10	16.18522136	-2.949407752
SLC4A4	-1.561236594	-0.611595186	-4.526751723	6.68E-06	3.09E-05	3.225059403	-2.951066834
PCED1B-AS1	-1.564400285	2.241906354	-7.302236136	5.61E-13	2.37E-11	18.89928869	-2.957545339
SIX5	-1.564632028	-0.39833904	-6.053941861	1.97E-09	2.61E-08	10.99989027	-2.958020454
S1PR5	-1.564717538	0.00250762	-5.606860952	2.64E-08	2.51E-07	8.504436393	-2.958195784
SGCB	-1.565184325	-1.117917526	-5.052056376	5.16E-07	3.35E-06	5.658882136	-2.959153069
RP3-412A9.11	-1.566079502	-0.932856194	-6.809723394	1.65E-11	4.30E-10	15.62112359	-2.960989762
RP3-403L10.2	-1.566383968	-0.584114131	-6.14887096	1.11E-09	1.60E-08	11.55272324	-2.961614715

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
FOXO6	-1.566655275	-1.320792594	-6.515270516	1.13E-10	2.22E-09	13.76116833	-2.962171715
LEF1	-1.567295026	3.96919435	-5.867548178	5.94E-09	6.83E-08	9.93774125	-2.963485556
CCL28	-1.568094665	2.465821806	-6.070275866	1.79E-09	2.40E-08	11.09444356	-2.965128576
RP11-616M22.3	-1.569410269	-4.06132796	-5.097916591	4.08E-07	2.72E-06	5.883442713	-2.96783373
CDR2L	-1.569915858	-1.614410905	-5.476806497	5.43E-08	4.72E-07	7.812280007	-2.968873983
TMEM56	-1.571079023	2.436941308	-4.056616779	5.35E-05	0.000191232	1.264765903	-2.971268587
AC034228.7	-1.574898817	-3.286836135	-5.594276498	2.83E-08	2.67E-07	8.436792971	-2.979145978
C3orf14	-1.574973187	-3.639550671	-4.452351241	9.41E-06	4.18E-05	2.901054341	-2.979299554
FAM115D	-1.575122767	-2.748264562	-6.171393684	9.68E-10	1.42E-08	11.68506083	-2.979608467
FBLN7	-1.575200251	-0.883411117	-5.862829653	6.10E-09	7.01E-08	9.911255847	-2.9797685
ACTN2	-1.575478551	-3.527547387	-4.725887315	2.61E-06	1.36E-05	4.117621804	-2.980343361
RP5-1187M17.10	-1.575662489	2.888070384	-6.280258116	4.95E-10	8.01E-09	12.33104675	-2.980723367
GPR3	-1.576908594	-0.012312873	-6.152211923	1.09E-09	1.57E-08	11.57232547	-2.983299033
AL137003.1	-1.577028637	4.200830086	-6.304392051	4.27E-10	7.12E-09	12.47567129	-2.983547275
CXCR5	-1.579395072	1.90838314	-6.270514604	5.26E-10	8.42E-09	12.27280354	-2.988445168
AC116366.6	-1.580359392	5.787099195	-6.283514252	4.86E-10	7.90E-09	12.35052943	-2.990443359
RPS26P21	-1.581965077	-0.754362427	-6.565011503	8.19E-11	1.69E-09	14.07006513	-2.993773504
DUSP5	-1.582407339	4.738189779	-7.202201945	1.13E-12	4.24E-11	18.21668574	-2.994691393
RAB36	-1.583119375	-1.531701986	-5.818684588	7.89E-09	8.83E-08	9.664432484	-2.996169775
SEC14L4	-1.583135496	-0.221303775	-3.880404217	0.00011083	0.0003631	0.583585492	-2.996203255
CCDC141	-1.583220202	2.35190977	-6.323044111	3.80E-10	6.43E-09	12.58779697	-2.996379178
PARD6G	-1.583326295	-2.114782112	-5.303684154	1.39E-07	1.06E-06	6.914716025	-2.996599534
MYL4	-1.58346258	1.32837531	-3.750087019	0.000186501	0.000572416	0.098722153	-2.996882623
RP11-403I13.9	-1.583478012	-3.503435246	-4.664839402	3.49E-06	1.76E-05	3.840077835	-2.99691468
SRL	-1.587039894	-2.868913794	-5.662358137	1.93E-08	1.92E-07	8.804447254	-3.004322929
FAT4	-1.587346688	-1.239755197	-4.230447292	2.54E-05	9.97E-05	1.965422243	-3.004961877
TMEM246	-1.587614596	-2.724803017	-4.256640123	2.26E-05	9.02E-05	2.073459747	-3.00551995
AXIN2	-1.587896978	0.39707185	-5.682384043	1.72E-08	1.75E-07	8.913386538	-3.006108284
TGFB2	-1.590654476	-2.159907547	-6.512230013	1.15E-10	2.26E-09	13.74235662	-3.01185951
AHNAK2	-1.592484907	-1.123722664	-5.207204695	2.31E-07	1.65E-06	6.426356778	-3.015683256
ETV1	-1.592599736	-3.382724162	-4.560068249	5.72E-06	2.71E-05	3.371821501	-3.015923294
CTC-277H1.7	-1.59266384	-1.022074176	-6.095205682	1.54E-09	2.11E-08	11.23921285	-3.016057305
CHAC1	-1.593817078	-0.123477972	-5.145147824	3.19E-07	2.20E-06	6.116732858	-3.018469195
PRKCDBP	-1.594528943	-2.796216537	-4.059221537	5.29E-05	0.000189457	1.275054915	-3.019958958
VGF	-1.594665797	-3.402274276	-4.821791354	1.63E-06	9.13E-06	4.56060687	-3.020245444
SLC9C1	-1.595319124	-2.522726961	-4.959461792	8.25E-07	5.02E-06	5.211370043	-3.021613477
BEND7	-1.595991406	-3.067304619	-4.628924045	4.14E-06	2.04E-05	3.678411001	-3.023021849
CXCL9	-1.596763301	-3.262178433	-4.773062879	2.07E-06	1.12E-05	4.334463894	-3.024639709
CD320	-1.597930226	2.406426913	-11.76017585	4.53E-30	5.25E-27	57.35910796	-3.027087181
GLI3	-1.599139773	-2.684126871	-5.053652465	5.12E-07	3.33E-06	5.66666517	-3.029626137
TMEM158	-1.599452892	-0.579122965	-5.468535498	5.68E-08	4.91E-07	7.768779261	-3.030283753
HIST2H3PS2	-1.599610291	-1.617953203	-4.389397601	1.25E-05	5.36E-05	2.630935078	-3.030614377
EPB41L4A	-1.600446525	-0.57769947	-5.56529532	3.33E-08	3.09E-07	8.281558651	-3.03237153
RP5-983L19.2	-1.601103638	-2.302690666	-5.442094991	6.56E-08	5.54E-07	7.630133441	-3.033753016
RP11-242O24.3	-1.601620875	-1.759121595	-8.959709812	1.47E-18	2.66E-16	31.41602827	-3.034840877
MAPK10	-1.602176851	-2.465562545	-5.662779709	1.93E-08	1.91E-07	8.806736848	-3.036010648
C3orf20	-1.603881695	0.532112161	-7.186435821	1.27E-12	4.64E-11	18.10987856	-3.039600447
PHLDB1	-1.604770392	2.064644843	-5.960039588	3.45E-09	4.28E-08	10.46092152	-3.041473411
SYNM	-1.605354843	-0.008693714	-5.847051958	6.69E-09	7.61E-08	9.822839325	-3.042705794
AC004696.2	-1.606041412	-0.343221751	-4.599729386	4.75E-06	2.30E-05	3.547879437	-3.044154143
RP11-96K19.2	-1.607010948	1.642211637	-6.068403026	1.81E-09	2.42E-08	11.08359014	-3.046200596
ST7-AS1	-1.607404347	-0.350469344	-4.851792934	1.41E-06	8.01E-06	4.700932534	-3.047031357
RP11-390E23.3	-1.607555338	-3.022418017	-5.066206093	4.80E-07	3.14E-06	5.727962176	-3.047350272
GALNTL6	-1.608424225	-3.096679578	-4.263811353	2.19E-05	8.77E-05	2.103151165	-3.049186143
DNAH2	-1.608527931	-1.964652483	-3.66960484	0.000255227	0.000754762	-0.192672656	-3.049405337
AC007362.1	-1.608722326	-3.323338337	-5.443852649	6.50E-08	5.50E-07	7.639330372	-3.049816254
HFM1	-1.609026133	-3.436483171	-4.351595304	1.48E-05	6.22E-05	2.470514846	-3.050458562
STAC	-1.613300729	-2.914506089	-3.781142959	0.000164978	0.000514291	0.21280855	-3.059510243
RP11-158I9.5	-1.613320275	-2.617334335	-5.933712691	4.03E-09	4.90E-08	10.31122456	-3.059551695
RP11-732M18.3	-1.613697469	1.248567296	-8.811948427	5.06E-18	7.98E-16	30.21004447	-3.060351721
RP11-258A12.3	-1.613921176	2.181744981	-7.75158373	2.15E-14	1.45E-12	22.06960359	-3.060826302

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
PBX4	-1.615012767	2.292083899	-6.177153576	9.34E-10	1.38E-08	11.71897658	-3.063143101
GYPB	-1.616183313	0.88536042	-3.893356974	0.000105154	0.000346866	0.632657161	-3.065629423
HSPA2	-1.617013297	1.801335435	-4.930997604	9.51E-07	5.69E-06	5.075387407	-3.067393591
PCDHB9	-1.618534189	-3.690541536	-4.803310506	1.79E-06	9.85E-06	4.474580945	-3.070628949
DAAM2	-1.619151494	-1.376940964	-4.111348404	4.24E-05	0.00015635	1.482304673	-3.071943101
AC007041.2	-1.620863288	0.269251849	-6.432094576	1.91E-10	3.54E-09	13.24947327	-3.0755902
KLRB1	-1.620985142	0.49898897	-6.25156733	5.92E-10	9.30E-09	12.15978345	-3.075849985
CRISP2	-1.622008878	-3.48820394	-4.609655734	4.53E-06	2.21E-05	3.592171991	-3.078033382
PTPRM	-1.622684762	1.407255688	-4.436119097	1.01E-05	4.46E-05	2.831051755	-3.079475739
EPB41L1	-1.627219391	-1.514025502	-6.603024387	6.41E-11	1.36E-09	14.30758532	-3.089170269
RP11-90D4.2	-1.627277704	-0.731566393	-5.477852192	5.40E-08	4.69E-07	7.817784183	-3.089295133
LRP2BP	-1.627886281	0.596866206	-7.832000598	1.18E-14	8.63E-13	22.65477767	-3.090598576
SLC24A3	-1.628900918	2.078550776	-3.741761317	0.000192705	0.000588893	0.068292657	-3.092772936
CLDN10	-1.630407888	-3.096448035	-4.000960028	6.75E-05	0.000235117	1.046446334	-3.096005186
ANKH	-1.631161175	3.372595986	-6.648941747	4.75E-11	1.04E-09	14.59617539	-3.097622152
RP11-179H18.4	-1.631416266	-0.995077003	-5.775574978	1.01E-08	1.10E-07	9.425084636	-3.098169908
MGP	-1.632172895	-1.162618771	-6.18678814	8.81E-10	1.31E-08	11.77577309	-3.099795186
ZNF300	-1.632659979	-1.019268599	-5.019206523	6.10E-07	3.87E-06	5.499215631	-3.100841919
GNG4	-1.633001371	-2.222125662	-5.602492637	2.70E-08	2.57E-07	8.480939806	-3.101575773
SEZ6L	-1.636859525	-0.661934429	-3.712328501	0.000216232	0.000652252	-0.038753231	-3.109880731
CYYR1	-1.63809912	-2.857398596	-3.887571387	0.000107654	0.000353577	0.610718774	-3.112554546
RP11-461F16.4	-1.63813415	-1.435245294	-6.115672349	1.36E-09	1.89E-08	11.35847687	-3.112630123
PTCH1	-1.638749159	0.698473022	-5.265470368	1.70E-07	1.27E-06	6.720269565	-3.113957295
PRDX3P1	-1.639736395	-1.901317048	-6.141534696	1.16E-09	1.66E-08	11.50971435	-3.116088904
RP13-25N22.1	-1.639807327	-1.339674083	-6.733421778	2.73E-11	6.59E-10	15.13192171	-3.116242114
CSF3	-1.639879288	-3.089852946	-4.93516269	9.32E-07	5.59E-06	5.09523875	-3.116397556
FEZ1	-1.641208033	-1.034614001	-4.550768479	5.97E-06	2.81E-05	3.330751218	-3.119269128
NRCAM	-1.641370991	-0.316753455	-5.465986926	5.76E-08	4.98E-07	7.755387722	-3.119621483
CASK	-1.644619937	3.154104709	-9.013782047	9.31E-19	1.84E-16	31.86163728	-3.126654778
RP11-688G15.3	-1.644672913	1.051990505	-7.900521965	7.02E-15	5.41E-13	23.15761836	-3.126769593
VWDE	-1.648412509	-1.91397916	-3.974177423	7.55E-05	0.000259326	0.942430646	-3.134884976
FOXO1	-1.648535368	5.481340095	-8.143988563	1.09E-15	1.02E-13	24.97556327	-3.135151953
EDNRB	-1.649136473	-2.699967773	-4.930982258	9.52E-07	5.69E-06	5.075314294	-3.136458499
RELN	-1.650373059	-2.380906758	-4.057093426	5.34E-05	0.000190952	1.266648221	-3.139148022
JAM3	-1.650944871	0.748485932	-5.933348427	4.04E-09	4.90E-08	10.30915766	-3.14039247
AC073109.2	-1.651063035	-3.846218088	-4.256186697	2.27E-05	9.04E-05	2.071584026	-3.140649694
ELL2P1	-1.651385305	-0.890652675	-6.899082646	9.07E-12	2.63E-10	16.2004428	-3.141351332
WIFP3	-1.652500192	-2.928726065	-3.85812227	0.000121277	0.000392696	0.499541711	-3.143779846
NCS1	-1.65261359	1.14283342	-5.033447999	5.67E-07	3.64E-06	5.568314487	-3.144026962
MAB21L3	-1.653102035	-2.091768947	-4.221504133	2.64E-05	0.000103199	1.928681905	-3.145091598
HDX	-1.653831906	-0.817456583	-4.175809725	3.22E-05	0.000122571	1.742132497	-3.146683128
FUT1	-1.654608582	0.119089022	-4.780873702	2.00E-06	1.08E-05	4.370565136	-3.148377602
KIF26A	-1.654984269	1.686477563	-4.784994104	1.96E-06	1.06E-05	4.389632181	-3.149197567
DMGDH	-1.655554837	-1.666522626	-6.656351195	4.53E-11	1.00E-09	14.64291567	-3.150443283
AC118278.1	-1.656591787	-0.612513163	-6.202588658	8.00E-10	1.21E-08	11.86909622	-3.152708505
GRAMD2	-1.657031218	-3.533542934	-5.72307005	1.37E-08	1.43E-07	9.135827088	-3.153668937
RP5-982E9.1	-1.657597271	-2.153683111	-6.721054781	2.96E-11	7.03E-10	15.0531068	-3.154906546
TTN	-1.658278066	6.15153821	-6.571075167	7.88E-11	1.63E-09	14.1078689	-3.156395671
ULBP2	-1.659404931	-2.644214889	-5.829534939	7.41E-09	8.35E-08	9.724937002	-3.158862042
MIR22HG	-1.659458514	5.411108012	-7.22142057	9.91E-13	3.82E-11	18.34716791	-3.158979366
C3	-1.659797196	0.795182717	-5.737028372	1.26E-08	1.33E-07	9.212483811	-3.159721044
CD247	-1.661957716	3.305458463	-6.859909223	1.18E-11	3.26E-10	15.94563166	-3.164456457
RP11-700H6.1	-1.662329276	-1.792823463	-6.117043216	1.35E-09	1.88E-08	11.36647851	-3.165271554
FRAS1	-1.662557672	-2.537187755	-3.723792918	0.000206764	0.000627094	0.002844527	-3.165772693
RP11-594N15.3	-1.662877824	-2.630286735	-5.599905477	2.74E-08	2.60E-07	8.467031941	-3.166475296
RP11-473M14.2	-1.664735047	-2.208153168	-6.590467359	6.95E-11	1.45E-09	14.22898443	-3.170554216
RP11-439L18.1	-1.665919856	-1.654980114	-6.793819284	1.83E-11	4.68E-10	15.51873982	-3.173159093
PPP1R16B	-1.666674849	5.87938276	-5.890815427	5.18E-09	6.07E-08	10.06863326	-3.174820109
TSPO2	-1.667815773	-0.385771694	-3.982330154	7.30E-05	0.00025168	0.974021719	-3.17733184
RP11-426L16.9	-1.670068133	-3.268572592	-5.626448274	2.36E-08	2.30E-07	8.610005766	-3.18229622
BAG3	-1.670376133	2.489507918	-5.624434212	2.39E-08	2.32E-07	8.599134646	-3.182975677

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
CES4A	-1.670984779	0.650566112	-5.290637897	1.49E-07	1.13E-06	6.848181929	-3.184318799
RP11-13L2.4	-1.671375936	-1.080331465	-2.80783803	0.00508061	0.010539501	-2.924658869	-3.185182279
CTHRC1	-1.671392425	-3.449188773	-4.763320971	2.17E-06	1.16E-05	4.289516421	-3.185218683
SLC30A4	-1.67148361	0.116607736	-6.486324643	1.36E-10	2.61E-09	13.5824071	-3.185420011
RP5-826L7.1	-1.67338376	-1.668469489	-6.207783266	7.75E-10	1.17E-08	11.89982555	-3.189618239
AGT	-1.673690169	-2.877755321	-3.773973422	0.000169728	0.000527003	0.18638944	-3.190295742
FAM71A	-1.674159589	0.111440074	-6.100242952	1.49E-09	2.05E-08	11.2685317	-3.19133396
SKIL	-1.675380246	6.037399591	-8.381900128	1.67E-16	1.96E-14	26.79878876	-3.194035276
PDLIM4	-1.676078322	-3.45673958	-5.23422119	2.00E-07	1.46E-06	6.562252041	-3.195581144
APBA2	-1.676963838	3.296564994	-6.215602287	7.38E-10	1.13E-08	11.94612492	-3.197543173
SHISA2	-1.677223083	-2.70209268	-5.185598497	2.59E-07	1.83E-06	6.318155917	-3.198117807
PTPRU	-1.677497534	-0.529663253	-6.016652533	2.46E-09	3.17E-08	10.78492144	-3.198726258
ROR1	-1.677525819	-2.923962145	-4.910573526	1.05E-06	6.24E-06	4.978275044	-3.198788972
EMILIN1	-1.678806373	2.049413212	-4.354835838	1.46E-05	6.14E-05	2.484214184	-3.201629516
RP11-422P24.9	-1.678910694	-0.669790015	-7.109242977	2.16E-12	7.36E-11	17.58999614	-3.201861034
AASS	-1.679216084	-1.165190028	-4.956689865	8.36E-07	5.08E-06	5.19809485	-3.202538877
ARHGAP44	-1.680061799	-2.391503618	-3.932885301	8.95E-05	0.00030127	0.783392088	-3.204416772
FAM221A	-1.680532989	1.885160725	-6.902570766	8.86E-12	2.58E-10	16.22319609	-3.205463517
GSTM3	-1.681652957	1.097668156	-5.536921512	3.90E-08	3.54E-07	8.130313218	-3.207952893
OSBP2	-1.681665203	3.634118726	-4.70730347	2.85E-06	1.47E-05	4.032767525	-3.207980123
MAGI3	-1.682494909	0.962947022	-5.713088972	1.45E-08	1.50E-07	9.081120152	-3.20982559
RP11-65J3.14	-1.686233522	-1.650275081	-6.752757806	2.41E-11	5.88E-10	15.25541608	-3.21815435
TGM5	-1.686233702	-0.309644153	-4.461067907	9.04E-06	4.03E-05	2.938747277	-3.218154749
RNF150	-1.686712767	-2.404092448	-4.213001632	2.74E-05	0.000106573	1.893821531	-3.219223555
GJB6	-1.690852434	-1.69070519	-4.253749757	2.29E-05	9.12E-05	2.061506256	-3.228474056
TUFT1	-1.691684876	1.549063378	-6.068470868	1.81E-09	2.42E-08	11.08398325	-3.23033744
ATP1B2	-1.691971492	-0.108902023	-4.682825477	3.20E-06	1.63E-05	3.921489192	-3.230979264
SSTR2	-1.692537085	-3.094273501	-4.692621221	3.06E-06	1.57E-05	3.965954481	-3.232246183
HS3ST4	-1.69275919	-3.20259309	-3.447779804	0.000587794	0.001568775	-0.963896396	-3.232743831
MB21D2	-1.693661916	-1.703020612	-5.475301478	5.47E-08	4.75E-07	7.804359848	-3.234767263
CTD-2105E13.13	-1.694160567	0.856423429	-7.58939062	7.11E-14	4.02E-12	20.90573859	-3.235885516
C9orf173	-1.695123362	-2.211700766	-4.536192009	6.39E-06	2.98E-05	3.266539676	-3.238045734
SYT5	-1.695162502	-2.675446683	-5.516721214	4.36E-08	3.90E-07	8.023080223	-3.238133582
EPHX2	-1.695340661	0.241970802	-6.059855024	1.90E-09	2.53E-08	11.03409264	-3.238533485
GYPE	-1.695599458	0.566541066	-4.604011884	4.66E-06	2.26E-05	3.56697722	-3.239114479
UCN2	-1.695773274	-1.86849283	-5.784746415	9.60E-09	1.05E-07	9.475865508	-3.239504751
AD000864.1	-1.697795859	-1.622552756	-4.852312424	1.41E-06	8.00E-06	4.703369656	-3.244049557
SLC2A12	-1.698060884	-3.910774475	-5.405736779	8.00E-08	6.57E-07	7.440518457	-3.244645549
CA1	-1.698093743	4.776928287	-3.878661353	0.000111615	0.000364886	0.576994756	-3.24471945
RP1-153P14.8	-1.698426188	-0.784085606	-5.354734111	1.05E-07	8.33E-07	7.176554343	-3.245467228
SEC14L2	-1.698543454	1.127181444	-6.710956736	3.17E-11	7.42E-10	14.98885036	-3.245731038
RPL3L	-1.699506482	-3.109384364	-6.011410721	2.54E-09	3.26E-08	10.7548022	-3.247898352
KCNJ12	-1.701619442	-1.654037278	-4.877025364	1.24E-06	7.19E-06	4.819595237	-3.252658684
PURG	-1.702206982	-3.461572661	-4.991399842	7.02E-07	4.35E-06	5.364836614	-3.253983605
ZNF503-AS1	-1.702324533	-3.103444698	-6.031991635	2.25E-09	2.93E-08	10.87319984	-3.254248751
FGF13	-1.703100868	-2.889780878	-4.547687038	6.06E-06	2.84E-05	3.317160514	-3.25600038
PKIA	-1.703382485	-0.316468271	-5.669984497	1.85E-08	1.85E-07	8.84589143	-3.256636019
SYN1	-1.704689831	-1.453284479	-6.100509159	1.49E-09	2.05E-08	11.27008175	-3.259588467
SLC2A4	-1.705475726	0.521292081	-4.758825761	2.22E-06	1.18E-05	4.26880593	-3.26136458
MAGEE1	-1.705902711	-0.387162828	-6.828515237	1.45E-11	3.89E-10	15.74237923	-3.262329969
KCTD15	-1.706602409	3.641744785	-6.662459318	4.35E-11	9.71E-10	14.68148285	-3.263912563
PTGDR2	-1.706708599	0.751627092	-5.615766513	2.51E-08	2.41E-07	8.552391577	-3.264152811
EPHA2	-1.707922916	-1.79512951	-5.113790601	3.76E-07	2.53E-06	5.961621401	-3.266901408
STK31	-1.708938825	-1.677956566	-6.539930861	9.62E-11	1.94E-09	13.91404148	-3.269202685
TRIM36	-1.710016981	-0.732155408	-6.397284993	2.38E-10	4.28E-09	13.03712652	-3.271646742
FAM186B	-1.711232385	-0.281860519	-6.174730701	9.48E-10	1.39E-08	11.70470648	-3.274404114
PAWR	-1.71243092	0.459534486	-5.554515174	3.53E-08	3.25E-07	8.224009756	-3.277125493
AC010170.1	-1.713304274	-1.725405453	-5.950039653	3.66E-09	4.50E-08	10.40398818	-3.279109943
PERP	-1.71345951	-2.508690259	-6.789001492	1.89E-11	4.81E-10	15.48776814	-3.279462801
ADAM32	-1.714210171	0.199378834	-6.002508694	2.68E-09	3.42E-08	10.70370758	-3.281169608
SLAMF1	-1.714218221	1.810563679	-7.012832652	4.19E-12	1.34E-10	16.94783887	-3.281187917

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
RAB30	-1.71490758	3.323056112	-7.479046468	1.59E-13	8.04E-12	20.12651081	-3.282756133
LAMB4	-1.717161822	-3.484911866	-5.45936697	5.97E-08	5.12E-07	7.720630514	-3.287889518
CCDC64	-1.718015517	1.788700013	-6.712885264	3.13E-11	7.35E-10	15.00111524	-3.289835659
C19orf69	-1.720040047	-1.625120214	-7.108275683	2.18E-12	7.39E-11	17.58351383	-3.294455517
ZC3H12B	-1.720055049	-1.335294593	-5.421194042	7.36E-08	6.12E-07	7.520984332	-3.294489774
NELL2	-1.722428164	2.509592069	-6.224233378	7.00E-10	1.08E-08	11.99729564	-3.2999134
CTC-455F18.3	-1.723334892	-2.481796063	-5.268649503	1.67E-07	1.25E-06	6.736395431	-3.301988033
C1orf115	-1.723837106	-1.826403839	-5.446680994	6.40E-08	5.42E-07	7.654135552	-3.303137683
RBM11	-1.724366506	-2.218533024	-6.591206052	6.92E-11	1.45E-09	14.23360448	-3.304349999
IRF4	-1.724617134	3.162427186	-6.292653479	4.59E-10	7.55E-09	12.4052628	-3.304924086
BACE2	-1.72504873	1.456731276	-5.928402455	4.15E-09	5.02E-08	10.2811051	-3.305912935
DNAH8	-1.725924914	-1.265671269	-4.163498955	3.39E-05	0.000128588	1.692208821	-3.307921306
GNG2	-1.726054308	5.502377402	-8.58191127	3.35E-17	4.61E-15	28.3669452	-3.308218005
TNN	-1.726241714	-1.685999181	-4.674577485	3.33E-06	1.69E-05	3.884118579	-3.308647769
FZD4	-1.727304476	-1.004276695	-5.388328577	8.79E-08	7.12E-07	7.350156502	-3.311085984
LEFTY2	-1.728994535	-3.548181492	-5.782799543	9.70E-09	1.06E-07	9.465079661	-3.31496706
RP1-151F17.1	-1.729822091	0.465861305	-7.161909048	1.50E-12	5.38E-11	17.94414351	-3.316869132
NGFRAP1	-1.731161962	0.746092751	-4.306518594	1.81E-05	7.44E-05	2.280973058	-3.319951031
C1orf21	-1.731923973	2.208733999	-5.254169911	1.80E-07	1.34E-06	6.663023712	-3.321705044
KCNN1	-1.732292656	-1.542224523	-5.128713419	3.48E-07	2.37E-06	6.03532617	-3.32255402
MYH11	-1.733889613	-1.507879028	-4.134165263	3.85E-05	0.000143488	1.573826818	-3.326233879
MEIOB	-1.735200628	-3.694125539	-4.223946818	2.61E-05	0.000102274	1.938709501	-3.329257889
RP11-368D24_A.1	-1.735352358	0.039478284	-7.300652153	5.67E-13	2.39E-11	18.88841389	-3.329608049
ID3	-1.738094027	1.099935362	-6.495233806	1.28E-10	2.48E-09	13.63734938	-3.335941587
TBC1D4	-1.739939952	2.692690563	-7.26450797	7.32E-13	2.98E-11	18.640845	-3.340212648
EPCAM	-1.74006235	-1.108248116	-4.265890979	2.17E-05	8.70E-05	2.111770577	-3.340496043
RGMB	-1.741176809	-0.287078453	-6.588227066	7.05E-11	1.47E-09	14.21497573	-3.34307752
GEM	-1.742619254	-0.866285719	-5.475828836	5.46E-08	4.74E-07	7.807134835	-3.346421691
LMCD1	-1.743041511	-2.20816423	-5.607833615	2.62E-08	2.50E-07	8.509670564	-3.347401284
GSTM5	-1.743361775	-1.106597702	-4.711232442	2.80E-06	1.45E-05	4.050680609	-3.348144458
NACAD	-1.743602273	-1.02761359	-6.886184164	9.89E-12	2.82E-10	16.116396	-3.34870264
CRIP2	-1.745403862	0.834747104	-6.19888634	8.18E-10	1.23E-08	11.84720928	-3.352887
C11orf96	-1.74878359	1.086045364	-6.4472126	1.74E-10	3.24E-09	13.34202799	-3.360750845
FZD3	-1.748876522	0.285032321	-5.486489656	5.15E-08	4.50E-07	7.863286719	-3.360967337
RP11-87G24.6	-1.751036026	-3.281694902	-5.162901422	2.91E-07	2.03E-06	6.204952017	-3.366001981
PRCD	-1.75110336	-1.541060643	-5.934386839	4.01E-09	4.88E-08	10.3150501	-3.366159084
HAS1	-1.751391962	-2.721527442	-4.023991817	6.14E-05	0.000216013	1.136436533	-3.366832531
SOWAHC	-1.753058527	-2.753853035	-5.199941981	2.40E-07	1.71E-06	6.389938479	-3.370724058
CDC42BPA	-1.753833849	1.462703846	-4.20203971	2.87E-05	0.000110968	1.848977699	-3.372536015
DYNC1I1	-1.755064903	-3.10359009	-4.125304591	4.00E-05	0.000148416	1.538227015	-3.375415033
ARG2	-1.7551979	0.952771668	-6.863523997	1.15E-11	3.21E-10	15.96908922	-3.375726213
RP11-275I4.1	-1.756639148	-2.390407263	-6.562140161	8.34E-11	1.71E-09	14.05217502	-3.379100239
ALPK3	-1.757100782	2.65331513	-6.143689247	1.15E-09	1.64E-08	11.52234047	-3.380181657
STK24-AS1	-1.757841993	-0.018368307	-11.01552581	9.03E-27	7.12E-24	49.91239746	-3.381918735
COL1A1	-1.758802694	0.828663536	-5.221082121	2.15E-07	1.55E-06	6.496078104	-3.384171528
SLC6A13	-1.761236163	-0.92258015	-5.162635298	2.92E-07	2.03E-06	6.20362749	-3.389884604
PRRT4	-1.761485783	1.976383002	-5.05284851	5.14E-07	3.34E-06	5.66274454	-3.390471183
TSPAN15	-1.763806439	-0.912958273	-5.473464325	5.53E-08	4.80E-07	7.794694617	-3.395929336
GYPA	-1.763976876	2.341158179	-3.891142893	0.000106104	0.000349417	0.624257837	-3.396330548
TCF7	-1.764472928	4.683912837	-6.999831645	4.58E-12	1.45E-10	16.86185283	-3.397498532
DSEL	-1.765710642	-0.270720532	-5.464380022	5.81E-08	5.02E-07	7.74694723	-3.400414559
SCGB3A1	-1.766771892	-2.858961844	-6.161227067	1.03E-09	1.50E-08	11.62526882	-3.402916833
RP11-465B22.3	-1.767214591	-0.176360643	-5.402416937	8.15E-08	6.68E-07	7.423264673	-3.403961196
CD5	-1.767703244	3.35054643	-6.77556375	2.07E-11	5.17E-10	15.40148838	-3.405114341
RP5-1186N24.3	-1.768200013	-2.850169356	-5.032482078	5.70E-07	3.66E-06	5.563621998	-3.40628704
CTD-2616J11.4	-1.76962206	-2.738758363	-6.411533343	2.18E-10	3.97E-09	13.12391626	-3.409646232
HHIP-AS1	-1.770541433	-2.123890393	-5.131457077	3.43E-07	2.34E-06	6.048899485	-3.411819759
MARCKSL1	-1.771358468	5.464812278	-10.8936099	3.02E-26	2.21E-23	48.7295742	-3.413752506
LINC00654	-1.77169293	2.441331957	-7.464357848	1.76E-13	8.83E-12	20.02355424	-3.414544013
PDZD2	-1.7717145641	0.140791259	-5.187782822	2.56E-07	1.81E-06	6.329075317	-3.414668771
RP11-104L21.2	-1.772053201	-1.109912007	-6.359082232	3.03E-10	5.27E-09	12.80530569	-3.415396803

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
RP11-734I18.1	-1.772122142	-3.129486213	-3.554262316	0.000396033	0.001113001	-0.599540367	-3.415560015
AP001046.6	-1.772503718	-3.123360461	-6.289285185	4.68E-10	7.66E-09	12.38508206	-3.41646351
NKX3-1	-1.773232592	-0.042480582	-5.906090769	4.74E-09	5.64E-08	10.15482936	-3.418190001
PRKG2	-1.773721301	-1.668412045	-5.84215962	6.88E-09	7.81E-08	9.795468462	-3.419348099
IGSF3	-1.774409972	-0.816741138	-5.251861568	1.82E-07	1.35E-06	6.651344446	-3.420980718
MTUS1	-1.775514043	-0.557005899	-6.229751529	6.77E-10	1.05E-08	12.03004533	-3.423599739
RP11-139K1.2	-1.776422542	0.394647922	-8.325923779	2.61E-16	2.95E-14	26.36568591	-3.425756339
FNDC7	-1.777186676	0.285376501	-5.621040207	2.44E-08	2.36E-07	8.580823422	-3.427571297
RP11-567J24.4	-1.777509322	0.033819031	-7.301048769	5.66E-13	2.38E-11	18.89113665	-3.428337928
TMEM133	-1.777627824	-2.377366475	-5.530948838	4.03E-08	3.64E-07	8.098568905	-3.428619542
MAPK15	-1.777921193	-1.736974057	-5.531653516	4.01E-08	3.63E-07	8.102312535	-3.429316815
BMP2	-1.778660966	-1.265691431	-4.303062553	1.84E-05	7.54E-05	2.266519412	-3.431075721
EXPH5	-1.77872704	-0.407787884	-5.76897897	1.05E-08	1.13E-07	9.388610213	-3.431232867
SYNE2	-1.778987023	5.620354456	-7.059289651	3.05E-12	1.00E-10	17.25628019	-3.431851251
RPS20P22	-1.781829773	0.570159147	-5.628708805	2.33E-08	2.27E-07	8.622211586	-3.43862019
LOXL4	-1.781839381	-1.894082504	-5.301063895	1.41E-07	1.07E-06	6.901340621	-3.438643091
CDC42EP4	-1.782353349	3.902007228	-8.894528804	2.54E-18	4.25E-16	30.88192151	-3.439868344
TRPC1	-1.782604119	-0.297331246	-6.601872398	6.45E-11	1.36E-09	14.3003687	-3.440466316
EIF5A2	-1.78274977	1.074541511	-7.127567414	1.91E-12	6.56E-11	17.71294829	-3.440813675
AE000658.22	-1.783859901	-2.099223109	-6.078593409	1.70E-09	2.30E-08	11.14268277	-3.443462345
RAPGEF5	-1.785228754	-0.49783671	-5.281433208	1.56E-07	1.18E-06	6.80133267	-3.44673111
APBA1	-1.786390341	-2.093200932	-4.385960733	1.27E-05	5.44E-05	2.616294923	-3.449507365
TRIB2	-1.786938046	3.291877779	-7.673388563	3.84E-14	2.40E-12	21.50575115	-3.450817185
SGIP1	-1.787029206	-1.181770026	-6.457660383	1.63E-10	3.05E-09	13.40610791	-3.451035241
B4GALNT4	-1.787056554	-2.469442594	-5.097275485	4.09E-07	2.73E-06	5.880290152	-3.451100659
HAP1	-1.78714299	-2.102367424	-4.795815431	1.86E-06	1.02E-05	4.439782378	-3.451307432
HOOK1	-1.787858127	0.468401578	-6.490105518	1.32E-10	2.56E-09	13.60571505	-3.453018652
DHH	-1.788754982	-0.344432019	-7.298042574	5.78E-13	2.42E-11	18.87050252	-3.455165898
NSUN7	-1.788959563	-0.42979128	-5.551435834	3.59E-08	3.30E-07	8.207590257	-3.45565589
MORC4	-1.789823102	0.168501795	-6.839622391	1.35E-11	3.64E-10	15.8141924	-3.457724925
N4BP3	-1.790361966	2.505164093	-5.286461018	1.52E-07	1.15E-06	6.826913222	-3.459016669
ARHGAP42	-1.791145721	-0.112384451	-5.490709807	5.03E-08	4.42E-07	7.885543242	-3.460896315
GALM	-1.791147431	1.160047512	-5.873478784	5.73E-09	6.62E-08	9.971058413	-3.460900418
C10orf35	-1.791757223	-2.896467788	-5.892565778	5.13E-09	6.03E-08	10.0784996	-3.462363565
NTRK1	-1.791832284	1.322993872	-4.744489133	2.38E-06	1.26E-05	4.202878726	-3.46254371
RP5-884M6.1	-1.792161785	-3.691959517	-4.962370768	8.13E-07	4.95E-06	5.225309194	-3.46333462
EPB42	-1.793183805	3.754155056	-4.43908967	1.00E-05	4.41E-05	2.843844221	-3.465788952
SNORD116-6	-1.793499916	-2.239705176	-7.425506486	2.33E-13	1.11E-11	19.75211015	-3.46654843
RP11-677C1.2	-1.793614729	-3.030937128	-4.571379621	5.43E-06	2.59E-05	3.421884082	-3.466824317
AC004540.4	-1.795863596	-3.056327968	-4.8628036	1.34E-06	7.65E-06	4.752641041	-3.472232602
NDN	-1.797469963	-1.73447828	-3.730826288	0.00020115	0.000612327	0.028426365	-3.476100909
EPB41L5	-1.799172483	1.681514441	-7.372483823	3.41E-13	1.55E-11	19.38370913	-3.480205466
GSTT1	-1.801047309	-1.5654784	-4.327445313	1.65E-05	6.84E-05	2.368730563	-3.484731038
CD28	-1.801877312	2.623823478	-6.964823607	5.81E-12	1.77E-10	16.63103818	-3.486736431
CNN3	-1.802951498	-0.568319375	-6.016463965	2.47E-09	3.18E-08	10.78383751	-3.489333512
GLRB	-1.803268657	-3.784436798	-5.186494147	2.57E-07	1.82E-06	6.322632727	-3.490100685
LY6G6C	-1.803554724	-0.273238307	-5.886693956	5.31E-09	6.21E-08	10.04541225	-3.490792793
XPNPEP2	-1.804422304	-2.172930768	-6.627774365	5.46E-11	1.18E-09	14.46291052	-3.492892649
NPHS1	-1.804626022	-1.727704866	-4.405305172	1.17E-05	5.05E-05	2.698841029	-3.493385904
UBXN10	-1.805434923	0.299172305	-5.287700584	1.51E-07	1.14E-06	6.833223444	-3.495345151
BVES	-1.808269502	-2.858398552	-3.703564397	0.000223743	0.000671671	-0.070468886	-3.502219487
SNORD116-4	-1.808818354	-1.842466986	-7.483824766	1.53E-13	7.79E-12	20.16004235	-3.503552109
RP4-665J23.1	-1.808946831	-2.326969592	-5.667799531	1.87E-08	1.87E-07	8.83401224	-3.503864126
LEF1-AS1	-1.812786842	-0.234876532	-6.098235101	1.51E-09	2.08E-08	11.25684253	-3.513202759
PINLYP	-1.813346075	-0.289125841	-5.807314533	8.42E-09	9.34E-08	9.601143208	-3.514564849
SYNGR3	-1.814474338	-0.905788557	-7.657983432	4.30E-14	2.60E-12	21.39526814	-3.517314498
LINC00649	-1.814651639	3.475753092	-5.814215215	8.09E-09	9.02E-08	9.63954073	-3.517746787
RP11-20D14.6	-1.81552924	1.591295741	-4.189506995	3.03E-05	0.000116439	1.797846282	-3.519887305
PLSCR4	-1.816256597	-1.461740067	-4.815526718	1.69E-06	9.36E-06	4.531410429	-3.521662359
PLK2	-1.816867352	3.762196139	-7.125615533	1.93E-12	6.63E-11	17.69983804	-3.523153546
LAMB3	-1.817292405	1.354772666	-5.802070847	8.68E-09	9.59E-08	9.571994275	-3.524191707

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
KRT18P15	-1.818084621	-1.117892932	-6.527055953	1.05E-10	2.08E-09	13.83416169	-3.52612745
RP11-659G9.3	-1.8192403	-2.384869649	-7.601782508	6.50E-14	3.76E-12	20.99388517	-3.528953205
FAM50B	-1.819747552	-0.689738337	-6.342510541	3.36E-10	5.78E-09	12.70514499	-3.530194206
MACROD2	-1.820729329	-0.193697316	-5.31831507	1.28E-07	9.89E-07	6.989516207	-3.532597377
DLL4	-1.821293984	-0.985509628	-6.355763196	3.10E-10	5.37E-09	12.78522581	-3.533980268
DPY19L2	-1.821359417	2.104694512	-4.654091648	3.67E-06	1.84E-05	3.791573039	-3.534140553
CAMK2D	-1.822574472	3.195816638	-7.453120738	1.91E-13	9.40E-12	19.94491286	-3.537118301
HOMER1	-1.826092608	1.324583636	-7.382819895	3.16E-13	1.45E-11	19.45533781	-3.545754396
PLOD2	-1.826789426	-1.959253218	-4.358138228	1.44E-05	6.07E-05	2.498185129	-3.547467399
FAM160A1	-1.827176516	-1.772072051	-5.494492839	4.92E-08	4.33E-07	7.90550818	-3.548419348
IKZF2	-1.827511174	4.248671026	-6.382311212	2.62E-10	4.65E-09	12.94611022	-3.54924256
ENO1P1	-1.828269514	-2.926314055	-6.553244361	8.83E-11	1.80E-09	13.99679476	-3.551108681
RP11-510H23.1	-1.828682449	-2.317632302	-5.294713615	1.45E-07	1.11E-06	6.868950861	-3.552125241
DTX1	-1.829121842	0.923250485	-5.681598006	1.73E-08	1.75E-07	8.909103746	-3.553207255
CHRNA6	-1.829807833	-2.48042862	-5.252126173	1.82E-07	1.35E-06	6.652682992	-3.554897181
CDH1	-1.831009163	0.722347522	-4.883452779	1.21E-06	7.00E-06	4.849915918	-3.557858572
ETV2	-1.831026528	-1.446689314	-8.737840099	9.34E-18	1.39E-15	29.61168489	-3.557901396
RP11-382A20.3	-1.831185105	0.876369036	-5.264781134	1.70E-07	1.27E-06	6.716774704	-3.558292491
EPHA4	-1.831380074	1.247900861	-7.059227908	3.05E-12	1.00E-10	17.25586903	-3.558773399
KREMEN2	-1.832235112	-2.521153899	-6.50974485	1.17E-10	2.28E-09	13.72698683	-3.560883193
RP3-511B24.5	-1.832969394	-2.463874515	-6.953110502	6.30E-12	1.91E-10	16.55404653	-3.562696021
ARHGAP39	-1.834640519	-2.072146057	-5.711682455	1.46E-08	1.51E-07	9.073418146	-3.566825209
ROBO2	-1.835058732	-3.6092132	-3.765468115	0.00017553	0.000542654	0.155111391	-3.567859323
CTC-260E6.2	-1.836492835	-2.116807171	-6.079887547	1.69E-09	2.28E-08	11.1501939	-3.571407696
LTA	-1.837301146	-0.445498222	-7.222769016	9.82E-13	3.79E-11	18.35633479	-3.573409239
DPF3	-1.837742595	0.055178878	-6.659724637	4.43E-11	9.86E-10	14.66421184	-3.574502832
DCLK2	-1.837761601	-1.220768635	-4.845380687	1.46E-06	8.26E-06	4.670870804	-3.574549922
MAOA	-1.838438908	-0.899095566	-5.538604583	3.86E-08	3.51E-07	8.139264439	-3.576228473
FAM115C	-1.840599349	2.069046615	-7.585034431	7.34E-14	4.13E-12	20.87478248	-3.581587898
PKP2	-1.840758397	-0.795436619	-4.050547383	5.49E-05	0.000195512	1.240816102	-3.581982768
PRR15	-1.840924708	-3.230423387	-5.163238574	2.91E-07	2.02E-06	6.206630145	-3.582395715
KIAA1257	-1.841491805	-0.517562889	-6.302256012	4.32E-10	7.20E-09	12.46285019	-3.583804167
ACHE	-1.845454808	0.70708514	-4.999498333	6.74E-07	4.21E-06	5.40390012	-3.593662212
CYP46A1	-1.846901516	-1.35928721	-5.132233412	3.41E-07	2.33E-06	6.052741389	-3.597267677
RANBP17	-1.847068813	1.222589395	-4.410283469	1.14E-05	4.95E-05	2.720140895	-3.597684845
GPC3	-1.847220806	-3.34287958	-5.091080939	4.22E-07	2.81E-06	5.849848652	-3.598063893
RNF144A-AS1	-1.848082847	-1.136405349	-5.773149853	1.03E-08	1.11E-07	9.411669707	-3.600214455
GLIS2	-1.850152462	-1.997399994	-5.67808369	1.77E-08	1.79E-07	8.889962511	-3.605382841
DLK1	-1.851065375	-3.120862724	-3.961659242	7.95E-05	0.000271205	0.894046087	-3.607664989
SLC25A21	-1.852650245	-2.506034438	-4.988478585	7.13E-07	4.41E-06	5.350760584	-3.61163036
PRPH2	-1.852784179	-3.105657674	-5.721192798	1.38E-08	1.44E-07	9.125530902	-3.611965666
CES1	-1.854142326	-0.045769043	-3.040843934	0.002418114	0.005474547	-2.256329308	-3.615367555
SNORD107	-1.858605396	-1.403248486	-8.175350068	8.50E-16	8.35E-14	25.21326742	-3.626569245
PCDH10	-1.858618064	-3.680569952	-4.218775705	2.67E-05	0.000104225	1.917487913	-3.62660109
PPP1R14A	-1.858901503	-2.248448123	-5.154265841	3.05E-07	2.11E-06	6.162005022	-3.62731366
RPL5P7	-1.860389623	-2.06414108	-6.609279391	6.15E-11	1.31E-09	14.34678989	-3.631057113
PTPN14	-1.863641106	1.825597563	-4.249499497	2.33E-05	9.27E-05	2.043942984	-3.639249862
GAS1	-1.863763155	-2.67222795	-4.86861451	1.30E-06	7.46E-06	4.779975482	-3.639557747
TSKU	-1.864878507	-2.459914955	-6.015567889	2.48E-09	3.19E-08	10.77868711	-3.642372588
CTD-2033A16.1	-1.865410194	-1.884130266	-8.074634097	1.86E-15	1.68E-13	24.45274537	-3.643715185
PABPC4L	-1.867580706	-3.675007198	-4.341848137	1.55E-05	6.46E-05	2.429368013	-3.649201223
NUDT16P	-1.867595114	-0.761836454	-4.49448997	7.75E-06	3.52E-05	3.083929391	-3.649237668
RP3-511B24.4	-1.868875074	-2.547758952	-6.814519457	1.60E-11	4.21E-10	15.6520415	-3.65247671
DARC	-1.869987583	-0.855505163	-4.584760334	5.10E-06	2.45E-05	3.481259041	-3.65529434
FAM134B	-1.870116693	1.387004426	-6.532142694	1.01E-10	2.03E-09	13.86570405	-3.655621475
GRTP1	-1.870133191	-2.508331982	-5.040133015	5.48E-07	3.53E-06	5.600814094	-3.655663279
LGR4	-1.872358538	1.460254284	-5.386765088	8.87E-08	7.17E-07	7.342054274	-3.661306465
OPTN	-1.87542817	3.672255489	-7.728106884	2.56E-14	1.69E-12	21.89978119	-3.669104947
HPCAL4	-1.875863934	-0.071828919	-6.933487369	7.19E-12	2.13E-10	16.42532571	-3.670213361
AC092198.1	-1.877635185	-3.048219536	-6.74126369	2.60E-11	6.28E-10	15.18196697	-3.674722187
RP11-13K12.1	-1.877729698	-0.330497148	-3.891010479	0.000106161	0.000349547	0.623755658	-3.674962931

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
ITGB4	-1.879417345	1.45608264	-5.968439706	3.28E-09	4.10E-08	10.50881546	-3.679264374
ROR2	-1.880140207	-2.070825961	-5.234280448	2.00E-07	1.46E-06	6.562550846	-3.681108329
MYO1D	-1.880755598	1.896085874	-6.306043805	4.22E-10	7.05E-09	12.48558833	-3.682678866
CSPG5	-1.885441042	-0.621540123	-7.060436979	3.03E-12	9.97E-11	17.26392102	-3.694658552
AHSP	-1.886834229	2.364597757	-4.382884502	1.29E-05	5.51E-05	2.603200354	-3.698228147
GBP1	-1.887109299	2.289972939	-6.681310941	3.85E-11	8.75E-10	14.80071807	-3.698933335
RBFOX3	-1.891140214	-3.366292639	-4.499876742	7.56E-06	3.45E-05	3.107426501	-3.709282669
MAP3K13	-1.891827529	0.931635524	-6.614377073	5.95E-11	1.27E-09	14.37876592	-3.711050232
RP11-153M7.3	-1.892253514	-1.343782694	-3.90560409	0.000100041	0.000331552	0.679201533	-3.712146157
IGFBP4	-1.892330627	1.082824422	-6.759475498	2.30E-11	5.65E-10	15.29839615	-3.712344578
DNAH17	-1.892432981	-0.454910546	-6.276207443	5.08E-10	8.17E-09	12.30682311	-3.712607965
RP1-34L19.1	-1.893542875	-0.58328554	-6.862205719	1.16E-11	3.22E-10	15.96053313	-3.715465248
SLCO5A1	-1.893711745	1.461875053	-4.105607667	4.35E-05	0.000159475	1.459354813	-3.715900173
VLDLR	-1.894342583	2.782865232	-4.342967625	1.54E-05	6.43E-05	2.434089314	-3.717525358
ANKRD31	-1.895189699	-1.598677611	-7.915644957	6.26E-15	4.94E-13	23.26912037	-3.719708839
SPOCK2	-1.899081726	5.73003934	-7.574799901	7.91E-14	4.40E-12	20.80211601	-3.729757223
FAM127C	-1.900075558	-3.002681217	-5.001669864	6.67E-07	4.17E-06	5.414384875	-3.732327435
RORA	-1.901362178	3.94109997	-7.489297207	1.47E-13	7.55E-12	20.1984686	-3.735657471
KCP	-1.901483154	-0.645638884	-7.195554532	1.19E-12	4.40E-11	18.17162722	-3.735970735
GABRE	-1.90443946	-2.589502165	-3.769508307	0.000172751	0.000535379	0.169960535	-3.743634168
GCM1	-1.90480296	-1.997048104	-5.925883304	4.22E-09	5.09E-08	10.26682538	-3.74457753
CHSY3	-1.90671921	-2.785313345	-5.389699213	8.73E-08	7.08E-07	7.357261168	-3.749554543
FCHO2	-1.907147529	4.04164909	-8.515523959	5.73E-17	7.58E-15	27.84288394	-3.750667908
ADAMTS15	-1.907602949	-2.968889126	-5.996102792	2.78E-09	3.53E-08	10.66698356	-3.751852078
CTD-2653D5.1	-1.909299921	-1.76687511	-5.870346792	5.84E-09	6.73E-08	9.95345948	-3.756267796
PRRG1	-1.916497954	-3.078954178	-4.430952923	1.04E-05	4.55E-05	2.808823786	-3.775055759
PVRL3	-1.9170659	-1.893246729	-6.620292833	5.73E-11	1.23E-09	14.41590186	-3.776542179
CYB5R2	-1.917492647	-2.571077035	-4.988008109	7.14E-07	4.41E-06	5.348494336	-3.777659441
NTSE	-1.919018946	0.766240284	-5.666648375	1.88E-08	1.88E-07	8.827755381	-3.781658128
DNALI1	-1.919136878	-2.472224485	-6.770743124	2.14E-11	5.30E-10	15.37057468	-3.781967271
PMEPA1	-1.919507155	1.247929846	-6.624976852	5.56E-11	1.20E-09	14.44532722	-3.782938062
B3GNT7	-1.922893529	2.799932117	-5.746932248	1.19E-08	1.27E-07	9.266980436	-3.791828014
MAFA	-1.924351424	-0.430447445	-5.433221565	6.89E-08	5.79E-07	7.583746118	-3.795661727
RP11-384P7.7	-1.925774223	-3.183304512	-4.648657337	3.77E-06	1.88E-05	3.767088733	-3.79940689
CCDC85C	-1.925934604	0.42651823	-6.517572805	1.11E-10	2.19E-09	13.77541806	-3.799829285
ZFP112	-1.929283694	-2.285130051	-5.178587978	2.68E-07	1.89E-06	6.283139951	-3.808660503
MTX3	-1.929848152	2.511419694	-7.385665113	3.10E-13	1.44E-11	19.47507093	-3.810150942
CACNB2	-1.931359098	-3.286941271	-4.545280179	6.13E-06	2.87E-05	3.306551206	-3.814143434
ELN	-1.932345504	-1.610288315	-4.834041499	1.54E-06	8.66E-06	4.617803703	-3.816752148
RUNDC3A	-1.932900988	0.520263543	-5.628195362	2.34E-08	2.28E-07	8.619438828	-3.818222003
NR4A3	-1.933500874	3.527097127	-6.783049396	1.97E-11	4.97E-10	15.44953221	-3.819809986
CMTM8	-1.934139549	-1.186378847	-7.250934479	8.06E-13	3.22E-11	18.54815999	-3.821501375
RP11-113K21.1	-1.939073498	-1.830419672	-8.391264035	1.55E-16	1.87E-14	26.8714868	-3.834593102
FREM1	-1.939095013	-2.615280255	-4.132322486	3.88E-05	0.000144489	1.566416952	-3.834650287
OLFML3	-1.941834008	-1.018222306	-7.15212368	1.61E-12	5.71E-11	17.87816383	-3.84193739
SOX8	-1.942473841	-2.550023353	-6.273347582	5.17E-10	8.29E-09	12.28972943	-3.843641661
OTUD7B	-1.943094837	2.137482696	-7.768166326	1.90E-14	1.31E-12	22.1898318	-3.845296479
SLC4A1	-1.943132412	7.150774049	-4.352683323	1.48E-05	6.19E-05	2.475113344	-3.845396632
RAB34	-1.944754253	4.023590201	-5.611634461	2.57E-08	2.46E-07	8.530132161	-3.849721958
GRHL1	-1.94681486	0.533001338	-7.433959501	2.19E-13	1.06E-11	19.81106085	-3.855224462
LAMC1	-1.948862251	1.822003532	-5.114554669	3.74E-07	2.53E-06	5.965390227	-3.860699461
ONECUT2	-1.950686536	-3.249581162	-4.563835461	5.62E-06	2.67E-05	3.388481437	-3.865584395
SH3BGRL2	-1.953848961	0.841208349	-6.212004368	7.55E-10	1.15E-08	11.92481357	-3.874067152
AFAP1L1	-1.955116385	-1.198259069	-5.526371758	4.13E-08	3.71E-07	8.074263923	-3.877472057
SELENBP1	-1.956812456	3.524171884	-4.649691874	3.75E-06	1.87E-05	3.771747732	-3.882033199
PHKA1	-1.957509316	-0.619843285	-5.305588142	1.37E-07	1.05E-06	6.924439075	-3.883908776
ADRA2B	-1.959520458	-0.83611329	-5.967857818	3.29E-09	4.11E-08	10.50549575	-3.88932679
FAM159A	-1.960665382	1.602082046	-8.612602259	2.61E-17	3.65E-15	28.61041157	-3.892414588
CD3D	-1.960762319	1.838794643	-7.915640324	6.26E-15	4.94E-13	23.26908618	-3.892676134
EFNB2	-1.961438613	-0.559095897	-7.177500292	1.35E-12	4.88E-11	18.04943905	-3.894501337
NUDT11	-1.965602381	-3.395387395	-6.287678007	4.73E-10	7.73E-09	12.37545636	-3.905757508

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
SOBP	-1.966877622	-1.902731671	-5.374917718	9.45E-08	7.58E-07	7.280731689	-3.909211448
SNORD64	-1.967735612	-1.127199921	-8.734264824	9.62E-18	1.42E-15	29.58292773	-3.911537
SMAGP	-1.968641423	0.356107055	-8.384931308	1.63E-16	1.94E-14	26.82231402	-3.913993671
GPRC5A	-1.970925973	-1.792551492	-5.426806975	7.13E-08	5.97E-07	7.550257281	-3.920196504
PLS3	-1.973582837	-2.186941928	-4.841924337	1.48E-06	8.36E-06	4.654682589	-3.927422582
AC003102.1	-1.975312148	4.800225305	-4.40525856	1.17E-05	5.05E-05	2.698641707	-3.932133077
GLIS3	-1.985808549	-0.788833293	-4.967414687	7.93E-07	4.84E-06	5.249496966	-3.960845833
IGF2BP1	-1.994671037	-3.289210845	-3.578863068	0.000360974	0.001023954	-0.513824889	-3.985252232
ZNF718	-1.994946152	3.681404546	-7.074525067	2.75E-12	9.14E-11	17.357835	-3.986012271
SLC6A8	-1.99579135	3.461702377	-6.146134135	1.13E-09	1.62E-08	11.53667301	-3.988348148
ARHGAP32	-1.995823363	3.029885372	-6.215458006	7.39E-10	1.13E-08	11.94527009	-3.988436649
KLC3	-1.996267466	-1.858222482	-5.779529258	9.89E-09	1.08E-07	9.446969632	-3.989664594
PPL	-1.997468537	-2.668876451	-4.468677573	8.73E-06	3.91E-05	2.971711268	-3.992987449
WFS1	-2.002439135	-0.863600008	-6.379010574	2.68E-10	4.73E-09	12.92607419	-4.006768438
EVC	-2.002940043	-1.045934335	-4.566405393	5.55E-06	2.64E-05	3.399854159	-4.008159842
C1orf116	-2.003791351	1.432716084	-6.607773976	6.21E-11	1.32E-09	14.33735127	-4.01052568
STXBP5L	-2.004405607	-3.335231112	-4.272313408	2.11E-05	8.48E-05	2.138415172	-4.012233606
HLF	-2.005172045	-1.733669891	-5.964692158	3.35E-09	4.17E-08	10.48744074	-4.014365689
ARSI	-2.007015796	0.62141553	-3.907080172	9.94E-05	0.00032984	0.684820872	-4.01949929
CCBP2	-2.00731124	0.486631345	-8.627613783	2.31E-17	3.25E-15	28.72976935	-4.020322513
AC005189.6	-2.008278853	-1.838724319	-7.461880834	1.79E-13	8.96E-12	20.00621006	-4.02301984
EVC2	-2.009717459	-1.235243147	-4.875681754	1.25E-06	7.23E-06	4.813261714	-4.027033459
ELOVL6	-2.009820909	2.982886233	-9.051907627	6.74E-19	1.41E-16	32.17720535	-4.027322233
ZDHHC8P1	-2.009862079	-3.274389901	-5.197921989	2.42E-07	1.72E-06	6.379817965	-4.027437161
DUOX2	-2.01180963	-1.557914152	-6.6121498	6.04E-11	1.29E-09	14.36479221	-4.032877628
ANXA5	-2.012836407	4.535696005	-5.594821166	2.82E-08	2.67E-07	8.439717685	-4.035748879
ZDBF2	-2.014052628	1.738090072	-6.782163909	1.98E-11	4.98E-10	15.44384651	-4.039152533
LY9	-2.015971271	3.649734929	-10.07030021	7.95E-23	3.73E-20	41.01934524	-4.044527783
TRAT1	-2.016494088	1.916507063	-7.601374828	6.52E-14	3.76E-12	20.99098319	-4.045993741
RP4-811H24.9	-2.016996323	-1.908625808	-6.507552088	1.18E-10	2.31E-09	13.71342991	-4.047402487
DENND2C	-2.019208145	-0.060472582	-5.903861816	4.80E-09	5.70E-08	10.14223876	-4.053612393
MIR22	-2.023154308	0.582705514	-8.154624106	9.99E-16	9.57E-14	25.0560853	-4.064715304
FBLN2	-2.023922959	1.348459089	-5.725764947	1.35E-08	1.41E-07	9.150613351	-4.066881514
NDRG4	-2.024688394	-2.365492536	-7.029277592	3.75E-12	1.20E-10	17.05681004	-4.069039807
PRDX2	-2.028374528	4.685353728	-7.658820393	4.27E-14	2.59E-12	21.40126559	-4.079449632
RP4-575N6.5	-2.028667363	-2.27489868	-7.218672655	1.01E-12	3.87E-11	18.32849207	-4.080277755
SLC14A1	-2.029829348	2.603212347	-6.815322378	1.59E-11	4.20E-10	15.65721949	-4.083565441
ACSL6	-2.031769572	2.390862401	-6.059243316	1.91E-09	2.54E-08	11.03055301	-4.089060962
ZNF486	-2.031879346	0.714788222	-6.857687686	1.20E-11	3.30E-10	15.9312209	-4.089372111
FOXJ1	-2.032278798	-2.287719336	-7.08661924	2.53E-12	8.47E-11	17.43859262	-4.090504529
SMAD7	-2.034586168	3.727644623	-8.23677277	5.26E-16	5.46E-14	25.68114224	-4.0970519
RBFOX2	-2.036473564	0.843424742	-5.454523288	6.13E-08	5.24E-07	7.695224586	-4.102415346
ABCB1	-2.03652752	2.816121216	-6.368783601	2.85E-10	5.01E-09	12.8640537	-4.102568778
IFI27	-2.037532452	1.098320139	-5.220585822	2.15E-07	1.55E-06	6.49358162	-4.105427481
LRIG1	-2.039016119	2.425943206	-7.647464445	4.65E-14	2.77E-12	21.31994153	-4.109651673
FAM84B	-2.039090786	2.821016737	-8.219874582	6.01E-16	6.17E-14	25.55211755	-4.109864375
AGAP1	-2.045767539	0.599713406	-7.276038273	6.75E-13	2.79E-11	18.71970121	-4.128928797
RGS16	-2.052408701	-0.108715738	-5.740884556	1.23E-08	1.30E-07	9.233692192	-4.147979319
NUAK1	-2.053993861	-1.886265475	-5.526908562	4.12E-08	3.71E-07	8.077113453	-4.152539413
DFNA5	-2.054591371	-0.4907086	-5.920429782	4.35E-09	5.24E-08	10.2359317	-4.154259595
TMIGD2	-2.054606132	1.073036629	-6.192692084	8.50E-10	1.27E-08	11.8106179	-4.154302097
GYG2	-2.05502548	-0.710300135	-5.794388587	9.08E-09	9.97E-08	9.529334179	-4.155509805
SLC38A3	-2.055728968	-3.083398407	-5.835436942	7.16E-09	8.09E-08	9.757892485	-4.157536611
DAB2IP	-2.056175553	-0.578183321	-6.807419077	1.67E-11	4.35E-10	15.60627584	-4.158823772
MAP1B	-2.056239294	-2.558072969	-5.511629556	4.48E-08	3.99E-07	7.99610952	-4.159007522
CD6	-2.057199529	4.320100114	-7.667590383	4.00E-14	2.48E-12	21.46414434	-4.161776613
ZNF721	-2.057991823	3.764600102	-10.87784156	3.53E-26	2.48E-23	48.57735185	-4.164062788
FERMT2	-2.058253959	-1.031655046	-6.621082381	5.70E-11	1.23E-09	14.42086052	-4.164819465
GAD1	-2.060053496	-0.335411445	-4.609363897	4.54E-06	2.21E-05	3.59086847	-4.170017666
GPR34	-2.060869761	-1.329018356	-6.155275364	1.07E-09	1.55E-08	11.5903081	-4.172377696
MYO16	-2.062736726	-2.779996226	-4.959878849	8.23E-07	5.01E-06	5.213368006	-4.17778059

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
CNTN4	-2.06561407	-3.475229308	-4.145193465	3.67E-05	0.000137851	1.618238382	-4.186121165
COL20A1	-2.065939001	-0.258741621	-6.120907916	1.32E-09	1.85E-08	11.38904545	-4.187064091
TBC1D12	-2.070573208	0.641348412	-5.230642421	2.04E-07	1.48E-06	6.544212209	-4.200535349
ZNF544	-2.071076485	3.84392922	-8.833443647	4.23E-18	6.73E-16	30.38441236	-4.20200094
JMY	-2.073557128	5.426285607	-9.257942805	1.15E-19	2.99E-17	33.90215469	-4.209232288
SNORD116-14	-2.079348489	-1.208670178	-8.321683523	2.69E-16	3.04E-14	26.33298127	-4.226163225
NRP2	-2.081205778	-0.054729611	-6.253114359	5.86E-10	9.24E-09	12.16899956	-4.231607385
CDK20	-2.082857341	0.415048869	-7.517428149	1.20E-13	6.37E-12	20.39639507	-4.236454403
ZNF229	-2.082934676	-1.435988957	-5.636313355	2.24E-08	2.19E-07	8.663306466	-4.236681502
RRAS2	-2.08331168	1.895133266	-8.412356154	1.31E-16	1.61E-14	27.03549765	-4.237788774
RP11-566K19.6	-2.085424738	-1.015662239	-4.574460362	5.35E-06	2.55E-05	3.435539654	-4.244000239
ZNF667	-2.087314017	1.236593642	-5.777959755	9.98E-09	1.09E-07	9.438281523	-4.249561606
SNORD108	-2.088671977	-0.751448726	-8.901979712	2.39E-18	4.06E-16	30.94280673	-4.253563457
PPP2R3A	-2.089408657	-1.848142265	-5.963200631	3.38E-09	4.21E-08	10.47893707	-4.255735997
ABCC13	-2.089681466	-0.9241421	-5.422334596	7.31E-08	6.09E-07	7.526930311	-4.25654082
PLCG1	-2.090582246	5.331267696	-9.937549787	2.70E-22	1.16E-19	39.82238657	-4.25919932
CKB	-2.090924331	3.00750592	-8.243192093	5.00E-16	5.25E-14	25.73021728	-4.260209362
ACVR2B-AS1	-2.093976009	-2.684395053	-7.797919136	1.52E-14	1.08E-12	22.40611999	-4.269230357
NKAIN2	-2.096388892	-3.407356913	-4.551832931	5.94E-06	2.80E-05	3.335448045	-4.276376548
ST8SIA1	-2.098229527	-1.276135742	-6.809470376	1.65E-11	4.30E-10	15.61949306	-4.281835963
LAYN	-2.098731638	-1.332140232	-7.675297436	3.78E-14	2.38E-12	21.51945506	-4.283326458
RTN1	-2.098742787	-1.027864305	-5.143004153	3.23E-07	2.22E-06	6.106100302	-4.283359561
RND1	-2.09953192	0.358298448	-6.993282302	4.79E-12	1.51E-10	16.81859175	-4.285703135
ZNF483	-2.101571041	0.190536536	-7.978977297	3.87E-15	3.22E-13	23.73811902	-4.291764877
EPN2	-2.101924113	2.639956601	-8.281094177	3.71E-16	3.98E-14	26.02065704	-4.292815335
ADD2	-2.102299079	3.834097991	-6.429010142	1.95E-10	3.61E-09	13.23061454	-4.29393121
RP11-353N4.5	-2.102976708	-2.893858412	-5.734347095	1.28E-08	1.35E-07	9.197745102	-4.29594853
CCDC8	-2.104824158	-3.360265797	-5.324907483	1.24E-07	9.58E-07	7.023283489	-4.301453249
NUP62CL	-2.105736259	-1.8108107	-5.668719959	1.86E-08	1.86E-07	8.839015881	-4.304173576
APBB1	-2.109583265	2.701800623	-8.184366593	7.93E-16	7.86E-14	25.28175653	-4.31566615
GNG11	-2.114566838	-1.503652145	-5.721727211	1.38E-08	1.44E-07	9.128461679	-4.330599747
AMIGO2	-2.115710915	1.140378691	-9.183511074	2.19E-19	5.27E-17	33.27520228	-4.334035332
MPPED2	-2.118050506	-2.486707711	-4.891731779	1.16E-06	6.78E-06	4.889027446	-4.341069458
SPRY4	-2.118483196	-1.746044998	-5.708452258	1.49E-08	1.53E-07	9.055736509	-4.342371617
DCHS1	-2.118617741	4.242005577	-7.516812378	1.21E-13	6.37E-12	20.39205545	-4.342776603
S1PR1	-2.118844005	3.337671721	-8.172519021	8.69E-16	8.48E-14	25.19177659	-4.343457754
FAT1	-2.128220379	-0.230966222	-4.450886478	9.47E-06	4.20E-05	2.894727319	-4.371778717
RP11-588H23.3	-2.128391489	-2.003074493	-4.625024371	4.22E-06	2.08E-05	3.660929407	-4.372297261
FLT4	-2.128573727	0.742543349	-4.954643546	8.45E-07	5.12E-06	5.188299251	-4.372849594
DNAJB5	-2.128666447	0.37590087	-7.474802085	1.64E-13	8.25E-12	20.09674212	-4.37313064
IRX5	-2.130155918	-0.98985975	-4.844049357	1.46E-06	8.29E-06	4.664634059	-4.377647889
SNORD116-13	-2.130714517	-1.779282921	-9.071134292	5.73E-19	1.24E-16	32.33677641	-4.379343207
SLTRK5	-2.136735069	-2.876655169	-4.698103277	2.98E-06	1.53E-05	3.990877734	-4.397656954
ABP1	-2.137228475	-1.174825968	-5.620579415	2.44E-08	2.36E-07	8.578338169	-4.399161222
GRASP	-2.141293337	4.901082573	-8.382786251	1.66E-16	1.96E-14	26.80566527	-4.411573548
PDE4A	-2.144398526	2.863835567	-7.988965705	3.58E-15	3.03E-13	23.81238829	-4.421079036
FAM83F	-2.14466135	-0.307287312	-6.989194681	4.93E-12	1.54E-10	16.79161	-4.421884524
RP11-616M22.5	-2.148258874	-2.641798575	-4.611165291	4.50E-06	2.20E-05	3.598915842	-4.432924753
MCOLN2	-2.15168228	0.922677683	-5.944259394	3.78E-09	4.64E-08	10.37111972	-4.443456239
PRDM5	-2.151904726	-1.852825572	-5.290906157	1.48E-07	1.13E-06	6.849548457	-4.444141417
GPR68	-2.154121003	-0.094745048	-8.167758706	9.02E-16	8.72E-14	25.15565518	-4.450973783
ICOS	-2.154712528	1.185664182	-7.258460521	7.64E-13	3.08E-11	18.59953138	-4.452799117
RP11-578F21.10	-2.155705001	-2.259651878	-3.567568026	0.000376694	0.001063042	-0.553251397	-4.455863384
POU4F1	-2.158831535	-0.191634771	-3.450736794	0.000581464	0.001554827	-0.953924456	-4.465530374
RAB33A	-2.159773818	1.398162046	-9.776441569	1.17E-21	4.62E-19	38.38736065	-4.468447946
SEMA3F	-2.161201664	1.679771391	-6.862736135	1.16E-11	3.22E-10	15.96397554	-4.472872592
GRIK5	-2.166675929	3.573856721	-6.763005057	2.25E-11	5.54E-10	15.32099409	-4.48987702
ETNK2	-2.168073801	-0.767756307	-7.98965589	3.57E-15	3.03E-13	23.81752322	-4.494229509
EDARADD	-2.171208208	-2.031748619	-7.621709944	5.61E-14	3.29E-12	21.13590339	-4.50400431
FARP1	-2.172655134	-1.30814013	-7.009193955	4.30E-12	1.37E-10	16.92375864	-4.508523789
TMEM151A	-2.175629502	-1.817558801	-6.151735717	1.09E-09	1.57E-08	11.56953085	-4.517828487

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
CERS4	-2.178022045	2.614014705	-8.479168305	7.67E-17	9.89E-15	27.55738992	-4.525327001
KIF1A	-2.179501708	-2.89186986	-6.224090503	7.01E-10	1.08E-08	11.99644805	-4.529970665
HMX3	-2.18006613	-2.973284695	-3.749925575	0.000186619	0.000572602	0.098131466	-4.531556312
DOK7	-2.182173525	-2.331472535	-7.941736846	5.14E-15	4.17E-13	23.4619398	-4.538367773
CTC-260F20.7	-2.183367727	-0.808213878	-7.503475107	1.33E-13	6.90E-12	20.29813975	-4.542125999
GALNT5	-2.18663758	-2.477189769	-5.857104213	6.31E-09	7.21E-08	9.879145325	-4.552432355
HIST1H2BM	-2.186650679	2.570208481	-9.188232224	2.10E-19	5.12E-17	33.31484198	-4.552473689
AP000688.8	-2.189169998	-2.810713399	-4.844715051	1.46E-06	8.28E-06	4.667752362	-4.56043043
NIPAL4	-2.191239769	-0.435088634	-7.117211324	2.05E-12	7.00E-11	17.64342641	-4.566977774
SYDE2	-2.20293039	-0.658620332	-6.078428959	1.70E-09	2.30E-08	11.14172842	-4.604135812
RP11-23P13.6	-2.20369917	-0.249193329	-8.122751584	1.28E-15	1.19E-13	24.81505382	-4.606589907
HMGA2	-2.204542591	-2.005268384	-4.798124923	1.83E-06	1.01E-05	4.45049948	-4.609283775
KCNIP3	-2.211606841	-1.955407525	-6.471701838	1.49E-10	2.81E-09	13.49237979	-4.631908779
GATA3	-2.212496159	1.506473647	-8.197858422	7.13E-16	7.14E-14	25.38436358	-4.634764898
NMT2	-2.213861073	2.681208809	-10.08372717	7.02E-23	3.38E-20	41.14113723	-4.639151861
SDK1	-2.215899663	-0.482915005	-6.69888059	3.43E-11	7.90E-10	14.91212297	-4.645711814
SH2D5	-2.216748521	-0.786925259	-7.51269896	1.24E-13	6.54E-12	20.36307448	-4.648446079
CA8	-2.221393639	0.16292943	-6.220464394	7.17E-10	1.10E-08	11.97494255	-4.663437035
SPTBN2	-2.223990804	0.49110791	-6.782638168	1.97E-11	4.97E-10	15.44689163	-4.671839799
HBM	-2.225194163	3.235989305	-5.121308373	3.61E-07	2.45E-06	5.998726654	-4.67573823
ACVR2B	-2.226413582	0.946406475	-8.979163086	1.25E-18	2.30E-16	31.57607877	-4.679692006
TINAGL1	-2.229068127	-1.441183818	-5.790658393	9.27E-09	1.02E-07	9.508639265	-4.68831052
PDE2A	-2.229266335	1.900959141	-9.236689455	1.39E-19	3.46E-17	33.72269651	-4.688954681
SNRPN	-2.231557817	4.905754296	-9.268632752	1.05E-19	2.76E-17	33.99254994	-4.696408223
AC138649.1	-2.231579097	-3.24294562	-4.558809524	5.75E-06	2.72E-05	3.36625792	-4.6964775
SPRED1	-2.233392696	0.032754402	-5.80707163	8.44E-09	9.35E-08	9.599792398	-4.702385109
PNMT	-2.237165147	-0.968767821	-7.401405578	2.77E-13	1.30E-11	19.58436305	-4.714697299
AP001046.5	-2.240062196	-0.710823511	-9.406256727	3.17E-20	9.61E-18	35.16417259	-4.724174305
AC002398.5	-2.240388442	-3.057144448	-6.25935012	5.64E-10	8.96E-09	12.20616927	-4.725242734
HHIPL1	-2.240655348	-2.456357183	-6.185365465	8.89E-10	1.32E-08	11.76738114	-4.726117008
ZFYVE9	-2.243935741	1.53877683	-6.815938917	1.58E-11	4.19E-10	15.66119589	-4.736875459
SNORD116-20	-2.245743231	-0.353953694	-7.511272159	1.26E-13	6.59E-12	20.35302531	-4.742813802
TUBB3	-2.247027765	0.320787712	-7.398221853	2.83E-13	1.33E-11	19.56224035	-4.747038546
HBA1	-2.247135866	5.335611287	-4.992074436	7.00E-07	4.34E-06	5.36808825	-4.747394255
LPIN3	-2.252024098	-2.187886039	-5.794249248	9.08E-09	9.97E-08	9.528560911	-4.763506964
HIST1H2BB	-2.252547946	4.105907237	-10.53652841	9.76E-25	5.83E-22	45.32559623	-4.765236924
SNURF	-2.254515133	5.514508373	-9.399536271	3.36E-20	1.00E-17	35.10662195	-4.771738995
SNORD116-18	-2.257639919	-0.642287045	-8.28999764	3.46E-16	3.76E-14	26.08905248	-4.782085482
GRAMD3	-2.258894816	1.890767727	-12.36020976	7.57E-33	1.25E-29	63.6286401	-4.786246886
PTGER3	-2.261404653	-0.778024233	-6.273173733	5.18E-10	8.29E-09	12.28869054	-4.794580701
FUT3	-2.261872495	-1.072084168	-5.698067054	1.58E-08	1.61E-07	8.998953011	-4.796135755
CRISP3	-2.265667602	0.958387635	-4.548803344	6.03E-06	2.83E-05	3.322082964	-4.808768925
MATN2	-2.266159153	-0.269549504	-6.777813927	2.04E-11	5.11E-10	15.4159252	-4.810407632
BEX2	-2.26659825	0.42711421	-7.164165397	1.48E-12	5.31E-11	17.95936895	-4.811871948
TNFSF9	-2.272172231	2.8612829	-8.151885966	1.02E-15	9.73E-14	25.03534593	-4.830499004
ALOX12	-2.272450775	-1.325215155	-5.571616475	3.21E-08	2.99E-07	8.315352462	-4.831431727
SIAH3	-2.278008262	-2.732877406	-5.880540222	5.50E-09	6.39E-08	10.01076945	-4.850079051
GNAT1	-2.282690729	-2.757026407	-6.010269414	2.56E-09	3.28E-08	10.74824754	-4.86584623
TSPYL5	-2.284110943	0.558746772	-5.978984697	3.08E-09	3.88E-08	10.56902766	-4.870638611
LRRC2	-2.288393072	-1.236484627	-7.212305242	1.06E-12	4.01E-11	18.28524148	-4.885116852
STAP2	-2.290942303	-1.481802607	-8.945700384	1.65E-18	2.97E-16	31.30095052	-4.893756446
PPP1R3G	-2.295588756	-0.746260959	-5.897682248	4.98E-09	5.88E-08	10.10735572	-4.909543057
IFIT1B	-2.297290903	1.801683936	-4.817393328	1.67E-06	9.29E-06	4.540106002	-4.915338945
PPP1R9A	-2.301142897	-1.074665726	-5.452515054	6.20E-08	5.29E-07	7.684697298	-4.928480429
NRP1	-2.30510816	0.593672891	-5.677942389	1.77E-08	1.79E-07	8.889193127	-4.942045043
ZNF626	-2.310259142	0.13801678	-7.65971064	4.24E-14	2.58E-12	21.40764553	-4.959721604
SNHG14	-2.319626907	4.904501344	-9.048224655	6.96E-19	1.44E-16	32.14667157	-4.992031047
XIRP1	-2.324723497	-1.721750479	-5.486120627	5.16E-08	4.51E-07	7.861341276	-5.009697516
ZNF595	-2.327011108	1.359595595	-6.385400198	2.57E-10	4.58E-09	12.96487011	-5.017647452
EDIL3	-2.333560809	-1.754003826	-4.697332953	2.99E-06	1.53E-05	3.987373902	-5.040478889
RP11-701H24.2	-2.336132878	2.152621846	-8.020207558	2.82E-15	2.45E-13	24.04521803	-5.049473183

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
PLEKHA8	-2.336908611	2.166705106	-8.078386262	1.80E-15	1.65E-13	24.48092978	-5.052189001
VASN	-2.341573878	-0.644825441	-8.006676026	3.13E-15	2.70E-13	23.94427589	-5.068552794
CAV2	-2.346620576	-1.225271408	-5.744481413	1.21E-08	1.28E-07	9.253486368	-5.086314169
CACNA2D2	-2.3505406	0.637017533	-6.78578327	1.93E-11	4.90E-10	15.46709065	-5.100153259
RP11-578F21.12	-2.357254495	0.853336953	-4.036445207	5.82E-05	0.000206211	1.185303123	-5.12394324
NID1	-2.36344929	3.578573931	-5.488471439	5.09E-08	4.46E-07	7.87373637	-5.145992272
LA16c-349E10.1	-2.365931139	-0.995428291	-7.09583812	2.37E-12	7.99E-11	17.50023478	-5.154852472
CLGN	-2.367885349	-2.00635217	-6.334544926	3.53E-10	6.03E-09	12.65708614	-5.161839736
RPL39L	-2.3699089	-1.48404062	-7.642027548	4.83E-14	2.86E-12	21.28104406	-5.169084907
NPTX1	-2.371514244	-2.038187131	-6.373838797	2.76E-10	4.88E-09	12.89469896	-5.174839952
TUSC1	-2.372081644	-2.182425363	-5.70675234	1.50E-08	1.54E-07	9.046435169	-5.176875575
SHD	-2.375605761	-1.104711829	-5.492509732	4.98E-08	4.37E-07	7.895040725	-5.189536751
MLF1	-2.379450383	-0.606269022	-8.045438129	2.32E-15	2.06E-13	24.23383383	-5.203384736
AC005082.12	-2.382102241	-1.944654347	-6.385906898	2.56E-10	4.56E-09	12.96794818	-5.212958018
FRMD4A	-2.38446923	2.084946716	-7.147869983	1.66E-12	5.85E-11	17.84950795	-5.221517789
TUBB2A	-2.385171519	2.000190321	-8.797859979	5.69E-18	8.90E-16	30.09595795	-5.224060189
SHISA7	-2.386123942	-1.016558975	-6.858608464	1.19E-11	3.29E-10	15.93719332	-5.227510093
RP11-455B2.8	-2.39173489	-1.59568872	-9.241573982	1.33E-19	3.40E-17	33.76390939	-5.247880578
DLG3	-2.399515618	0.431951063	-8.9408508	1.72E-18	3.03E-16	31.26115044	-5.276259851
ALAS2	-2.400496468	5.92293683	-5.283111782	1.55E-07	1.17E-06	6.809870379	-5.279848259
RYR3	-2.403022798	0.560432026	-5.086153425	4.33E-07	2.87E-06	5.825658794	-5.289102
HIST1H3E	-2.406080547	-0.317018762	-8.397229595	1.48E-16	1.80E-14	26.91783818	-5.300323982
VANGL2	-2.40692094	0.428782759	-6.690154918	3.63E-11	8.33E-10	14.85676207	-5.303412404
RAB11FIP5	-2.411029657	1.312678638	-7.492325186	1.44E-13	7.40E-12	20.21974122	-5.318537764
TFCP2L1	-2.411226964	-0.301523349	-7.03777308	3.54E-12	1.14E-10	17.11319558	-5.319265192
OTOF	-2.412729207	-1.099249498	-5.38935114	8.74E-08	7.09E-07	7.355456779	-5.324806896
HBA2	-2.41459892	5.370517884	-5.355189531	1.05E-07	8.31E-07	7.178900897	-5.331712245
CACNA1H	-2.415400006	-0.259629178	-7.200126771	1.15E-12	4.29E-11	18.20261544	-5.33467361
RP11-1134I14.2	-2.418009411	-1.583987816	-4.303844422	1.84E-05	7.51E-05	2.269788321	-5.344331174
THNSL2	-2.418880242	-0.899951234	-5.858096725	6.27E-09	7.17E-08	9.884709621	-5.347558061
SCML1	-2.421307046	1.98973646	-8.27831395	3.80E-16	4.05E-14	25.99931282	-5.356560934
CALN1	-2.422722069	0.775312246	-6.133340505	1.22E-09	1.73E-08	11.46173227	-5.361817329
PCLO	-2.427330605	-2.969409959	-5.02612826	5.89E-07	3.76E-06	5.532776235	-5.378972471
ABCA11P	-2.430958179	1.340400173	-12.06633698	1.79E-31	2.20E-28	60.52877588	-5.392514604
GPR173	-2.431194663	-2.415833705	-5.952984696	3.59E-09	4.43E-08	10.42074613	-5.393398609
Z95704.2	-2.43215989	-0.471823562	-6.566623241	8.11E-11	1.68E-09	14.08011035	-5.397008241
MEIS2	-2.433537392	-2.049238871	-5.580804056	3.05E-08	2.86E-07	8.364535001	-5.402163829
ZNF205	-2.434157317	-2.69408454	-6.233052134	6.63E-10	1.03E-08	12.04964696	-5.404485631
NEDD4L	-2.43476773	2.465725212	-9.064157855	6.08E-19	1.29E-16	32.27884235	-5.406772785
RASD2	-2.442391609	-2.231535359	-7.346966668	4.09E-13	1.80E-11	19.20726266	-5.435420344
TOX2	-2.442809703	-0.634486807	-7.691474578	3.36E-14	2.14E-12	21.63571364	-5.436995759
ZNF827	-2.444232695	4.406455647	-8.982361783	1.21E-18	2.28E-16	31.60242423	-5.442361146
INPP5J	-2.444624881	-2.136111485	-6.387217739	2.54E-10	4.53E-09	12.97591224	-5.443840815
ZNF462	-2.446396851	-0.562377981	-7.05486555	3.15E-12	1.03E-10	17.22682766	-5.450531242
AC011385.1	-2.452369131	-1.818653023	-7.834183936	1.16E-14	8.53E-13	22.67074007	-5.473141407
PARD3	-2.453897931	-0.014329855	-7.837307645	1.13E-14	8.36E-13	22.69358439	-5.478944278
SCRN1	-2.456061833	3.435883111	-6.863136202	1.15E-11	3.22E-10	15.96657214	-5.487168325
TMEM117	-2.462131067	-0.584488628	-8.524763358	5.31E-17	7.08E-15	27.91560822	-5.510300768
PPAPDC3	-2.467867096	-1.237436249	-6.76522348	2.22E-11	5.47E-10	15.33520302	-5.532252851
SLC41A1	-2.471395011	3.296909052	-11.16695385	1.99E-27	1.70E-24	51.39597612	-5.545797778
DACT3	-2.475018457	-0.238248877	-7.358003002	3.78E-13	1.69E-11	19.28350933	-5.559744008
FBN2	-2.486121341	2.712622163	-5.615097463	2.52E-08	2.42E-07	8.548786351	-5.60269649
GOLM1	-2.488189806	1.256409639	-8.536854498	4.82E-17	6.51E-15	28.01088224	-5.610735121
PKLR	-2.507763019	0.331355426	-6.793894561	1.83E-11	4.68E-10	15.5192239	-5.687375341
SNORD116-19	-2.508138468	-0.368801414	-9.237577494	1.37E-19	3.46E-17	33.73018791	-5.688855626
ZNF703	-2.512865188	1.225291453	-7.654339663	4.42E-14	2.65E-12	21.3691646	-5.707524661
FKBP14	-2.513767933	3.039375272	-7.936874833	5.33E-15	4.31E-13	23.42596689	-5.711097176
FAM64A	-2.514733671	-0.926412102	-7.219922034	1.00E-12	3.84E-11	18.33698252	-5.714921458
PARD3B	-2.520925152	-1.60507035	-5.623227513	2.41E-08	2.33E-07	8.592623112	-5.739500361
PTPN13	-2.527680699	0.497412828	-8.102600263	1.50E-15	1.39E-13	24.66309061	-5.766439101
ZNF90	-2.528576468	0.072515885	-7.330433545	4.60E-13	2.00E-11	19.09323316	-5.770020595

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
PXDC1	-2.530526428	-0.670245716	-8.854595528	3.55E-18	5.73E-16	30.55635123	-5.777824679
NBL1	-2.544177595	1.764687782	-8.296881615	3.28E-16	3.59E-14	26.14197849	-5.832755481
DCBLD2	-2.546494115	0.914999677	-7.725753139	2.60E-14	1.72E-12	21.8827804	-5.842128596
RCOR2	-2.5507238	-1.132046407	-7.518488232	1.19E-13	6.36E-12	20.40386671	-5.859281649
ADAM23	-2.556158471	-1.269384953	-5.089824837	4.25E-07	2.82E-06	5.843680159	-5.881395342
UNC5C	-2.559688198	-2.142764627	-4.325921974	1.66E-05	6.89E-05	2.3623285	-5.895802505
RP11-255H23.2	-2.571966473	-0.482745742	-7.137543235	1.78E-12	6.18E-11	17.78000395	-5.946193753
CTC-250P20.2	-2.572121911	-0.24446769	-9.687950644	2.60E-21	9.68E-19	37.6074342	-5.946834438
SMPDL3A	-2.572905462	-0.938052668	-6.668268895	4.19E-11	9.44E-10	14.71819509	-5.950065138
GIPR	-2.575587841	0.52072476	-7.799459622	1.50E-14	1.07E-12	22.41733856	-5.961138286
FLNC	-2.576906485	-1.012862131	-6.978547267	5.30E-12	1.63E-10	16.72139545	-5.966589341
PTPBP1	-2.583642347	0.036676673	-6.963432788	5.87E-12	1.78E-10	16.62188999	-5.994512148
AR	-2.58523919	-0.295294476	-5.291083238	1.48E-07	1.13E-06	6.85045055	-6.001150828
HIST1H1A	-2.585415465	-0.385740776	-9.704982874	2.23E-21	8.60E-19	37.75709168	-6.00188412
TMEM176A	-2.596129998	-0.054816111	-6.507253567	1.19E-10	2.31E-09	13.7115846	-6.046624536
RNF217	-2.598985538	2.803948334	-5.992608873	2.84E-09	3.60E-08	10.64696888	-6.05860453
NFIA	-2.606970509	1.887566313	-7.785648358	1.67E-14	1.16E-12	22.31682847	-6.092230422
NRSN2	-2.60774878	0.95705397	-11.2838862	6.10E-28	5.47E-25	52.55244149	-6.0955178
GPR12	-2.620262807	-2.440777722	-5.728120392	1.33E-08	1.39E-07	9.163542476	-6.148620682
MECOM	-2.621362648	-2.226408974	-4.394578348	1.22E-05	5.26E-05	2.653024577	-6.153309878
AC092574.2	-2.623135181	-0.991370211	-12.75363473	1.01E-34	2.49E-31	67.86465046	-6.160874645
RASAL1	-2.623178583	-0.431124378	-5.823851953	7.65E-09	8.59E-08	9.693233961	-6.161059988
HHIP	-2.65399007	-2.194123283	-6.258073514	5.68E-10	9.01E-09	12.19855697	-6.294056239
SLAIN1	-2.655284065	2.12638374	-9.813073239	8.41E-22	3.46E-19	38.71194123	-6.299704094
SLC35G1	-2.663730333	-0.884289863	-7.75439998	2.10E-14	1.43E-12	22.09000604	-6.336693929
GPC4	-2.667470687	-1.69170892	-5.551105831	3.60E-08	3.30E-07	8.205831141	-6.353143858
SNORD116-21	-2.66956936	0.06523754	-7.815305293	1.33E-14	9.61E-13	22.53284875	-6.362392433
COL2A1	-2.673278426	-1.324493449	-7.537635775	1.04E-13	5.65E-12	20.53898413	-6.378770733
DUSP8	-2.674686692	3.439986463	-7.662097569	4.17E-14	2.56E-12	21.42475466	-6.38500032
CTC-774J1.2	-2.678195088	-2.534408486	-6.09239305	1.56E-09	2.14E-08	11.22285207	-6.400546478
ROBO1	-2.687737328	0.182437617	-5.388037207	8.81E-08	7.12E-07	7.348646412	-6.443021138
IGSF1	-2.695542405	-3.083057189	-4.748865897	2.33E-06	1.24E-05	4.222985155	-6.477972775
UGGT2	-2.703855069	0.419372454	-5.41668169	7.54E-08	6.24E-07	7.497471947	-6.515405945
BCL6B	-2.706505896	-0.198055746	-7.929471245	5.64E-15	4.53E-13	23.3712269	-6.527388441
HIST3H2BB	-2.708308882	0.295809073	-7.754148457	2.11E-14	1.43E-12	22.0881836	-6.535551045
DUSP4	-2.714685197	1.698065239	-8.490266425	7.02E-17	9.23E-15	27.6444288	-6.564500309
SLC18A2	-2.722803316	0.243964785	-6.266880728	5.38E-10	8.59E-09	12.25110298	-6.601543214
RP11-701H24.4	-2.734905267	4.144494275	-7.661850786	4.18E-14	2.56E-12	21.42298553	-6.657152728
ARC	-2.744142292	0.826684641	-7.30565331	5.48E-13	2.33E-11	18.92275647	-6.699912676
HBB	-2.74827662	10.51531715	-6.135148276	1.21E-09	1.72E-08	11.47231277	-6.719140136
CTC-497E21.4	-2.764881406	-1.322318895	-4.9322881	9.45E-07	5.66E-06	5.081536369	-6.796921243
DSG2	-2.778767523	-1.793593766	-6.003955749	2.66E-09	3.39E-08	10.71200839	-6.862658298
PBX1	-2.784920546	1.005354967	-6.10129266	1.48E-09	2.05E-08	11.27464424	-6.891989702
PMP22	-2.786442218	-0.438080769	-7.858035549	9.68E-15	7.26E-13	22.84537643	-6.899262811
DES	-2.790717374	-2.656103914	-6.840052524	1.35E-11	3.63E-10	15.81697556	-6.919737806
RUNX1T1	-2.806228397	-1.757683761	-4.200972862	2.89E-05	0.000111418	1.84461939	-6.994536199
CAV1	-2.811267779	-0.464539047	-6.290346085	4.65E-10	7.63E-09	12.39143724	-7.019011071
HIST1H4F	-2.834372109	4.320508902	-10.76308119	1.09E-25	7.15E-23	47.4747742	-7.132323346
USP2	-2.834967606	-0.082434941	-8.474065551	7.99E-17	1.02E-14	27.51740392	-7.13526794
WDFY3	-2.843721762	5.468556112	-9.307839004	7.48E-20	1.99E-17	34.32483655	-7.178695791
RAB3IL1	-2.853412932	0.58406009	-9.033059677	7.91E-19	1.61E-16	32.02105758	-7.227080337
MEG3	-2.853937405	-0.388741281	-5.669499994	1.85E-08	1.85E-07	8.843256918	-7.229708126
DPPA4	-2.895972824	-0.966682993	-6.368977649	2.85E-10	5.00E-09	12.86522963	-7.443457049
ZNF711	-2.920713422	1.379839445	-6.217890535	7.28E-10	1.12E-08	11.95968473	-7.57220475
KRT1	-2.921325146	-0.048165786	-6.81972957	1.54E-11	4.10E-10	15.68565113	-7.575416162
MMP14	-2.93136182	3.237175183	-9.013416738	9.34E-19	1.84E-16	31.85861909	-7.628301259
CADM1	-2.942117466	-0.932994914	-5.816889853	7.97E-09	8.90E-08	9.654434725	-7.685384642
MCAM	-2.959961158	0.820273656	-9.068630315	5.85E-19	1.25E-16	32.3159784	-7.781030088
HMGB1P41	-2.966386005	-2.561561852	-8.907381944	2.28E-18	3.91E-16	30.98697847	-7.815759124
TSPAN7	-2.977655242	0.843827607	-7.069210425	2.85E-12	9.45E-11	17.32238659	-7.877048954
SGPP1	-2.979763585	2.811609662	-10.73150155	1.48E-25	9.41E-23	47.17300274	-7.888568824

gene	logFC	AveExpr	t	P.Value	adj.P.Val	B	FoldChange
RP5-972B16.2	-2.990517565	-0.137832544	-7.697252678	3.22E-14	2.07E-12	21.67729138	-7.947590639
DDIT4L	-2.99067685	-1.483983762	-5.569146818	3.26E-08	3.02E-07	8.302145019	-7.948468166
IRX1	-2.994045852	-2.448166576	-5.137422185	3.32E-07	2.28E-06	6.078433623	-7.967051233
TMEM176B	-3.00413763	0.760339378	-7.234253543	9.06E-13	3.54E-11	18.43447051	-8.022976828
PXDN	-3.007802935	0.563667774	-5.419278679	7.43E-08	6.17E-07	7.511001744	-8.043385879
LRP6	-3.010744805	1.925142179	-7.950305802	4.81E-15	3.92E-13	23.52538693	-8.059804275
HIST3H2A	-3.035632497	0.097274306	-7.906979675	6.69E-15	5.19E-13	23.20520804	-8.200048806
RP11-401F24.4	-3.038516296	-0.396815162	-5.776124343	1.01E-08	1.09E-07	9.428124263	-8.216456254
RP11-26F2.1	-3.040924345	-2.250105506	-4.497306346	7.65E-06	3.49E-05	3.096211056	-8.23018206
PRSS21	-3.045702653	0.962383356	-5.079792555	4.47E-07	2.96E-06	5.794465325	-8.257486195
ADAMTS7	-3.075867525	0.273602004	-8.75592949	8.04E-18	1.22E-15	29.75733945	-8.431957087
PON2	-3.103766044	2.204913981	-9.21834713	1.62E-19	4.00E-17	33.56809913	-8.596599196
CD70	-3.121455365	-0.199616865	-8.315010914	2.84E-16	3.18E-14	26.28154562	-8.702653555
FGD5	-3.218871963	-0.508251945	-6.993964368	4.77E-12	1.50E-10	16.82309536	-9.310585941
FAM213A	-3.235387684	0.009717698	-9.150000573	2.92E-19	6.78E-17	32.99433851	-9.417784325
THSD7A	-3.241125816	-0.654089714	-5.719348148	1.40E-08	1.45E-07	9.115416623	-9.455316927
AXL	-3.261153432	-0.118544227	-8.099895252	1.53E-15	1.41E-13	24.64271713	-9.587491757
KIRREL	-3.362850493	-0.229263368	-7.207332216	1.09E-12	4.11E-11	18.25148625	-10.28771369
NCAM1	-3.37256385	1.472017236	-6.784933576	1.94E-11	4.92E-10	15.46163276	-10.35721236
FAM171A1	-3.386984348	0.028062343	-7.66786285	4.00E-14	2.48E-12	21.46609889	-10.46125729
HPGD	-3.401715191	0.971765091	-9.433975492	2.48E-20	7.78E-18	35.40190792	-10.56862064
C15orf38	-3.416650982	-0.038800875	-8.915082657	2.14E-18	3.70E-16	31.04998359	-10.67860274
MYEF2	-3.435249903	2.673783384	-9.656208267	3.46E-21	1.22E-18	37.32910705	-10.81716024
AADAT	-3.451273227	-1.64920883	-7.92935523	5.64E-15	4.53E-13	23.37036949	-10.93797092
MYO18B	-3.463015211	1.249816478	-5.630952678	2.30E-08	2.25E-07	8.634332016	-11.02735749
MSLN	-3.534447005	0.984361897	-5.774123993	1.02E-08	1.10E-07	9.41705767	-11.58709497
LAMB2	-3.554942884	2.513475758	-7.437062309	2.15E-13	1.04E-11	19.83271472	-11.75288377
BMP3	-3.558896928	-1.930150812	-6.940668284	6.85E-12	2.05E-10	16.47239155	-11.78513948
DSC2	-3.579471507	0.925824947	-7.448531175	1.98E-13	9.67E-12	19.91282401	-11.95441401
TRO	-3.667417653	-0.187051558	-7.755959994	2.08E-14	1.42E-12	22.10131046	-12.70582063
APP	-3.762203229	4.444063181	-9.939953999	2.64E-22	1.16E-19	39.84394812	-13.56863068
ARPP21	-3.928395836	-1.078006318	-7.234597766	9.04E-13	3.54E-11	18.43681418	-15.22526924
ST18	-4.321279497	0.239574718	-8.527532188	5.20E-17	6.97E-15	27.93741531	-19.99101054
ADAMTS3	-4.665435485	0.500375837	-10.3664354	4.95E-24	2.57E-21	43.73623037	-25.37675131
RPS6KL1	-4.689494947	2.323430486	-14.95184861	6.12E-46	4.02E-42	93.22202557	-25.80350153
PRAME	-4.739643291	1.481751987	-7.495817305	1.40E-13	7.24E-12	20.24428414	-26.71620697
ZNF704	-4.810447069	2.327483353	-12.23736135	2.86E-32	4.03E-29	62.32602933	-28.06007713
ZNF521	-5.760202033	3.977043408	-9.948621027	2.44E-22	1.09E-19	39.92171176	-54.19928944

Supplemental table 5. Overlapping differentially expressed genes between NUP98-KDM5A and NUP98-NSD1

Upregulated in both	Downregulated in both	Up in NUP98-KDM5A, down in NUP98-NSD1	Down in NUP98-KDM5A, up in NUP98-NSD1
ABO	AC011484.1	ABC6	AC025627.9
AC010745.4	AC114730.3	ABCG2	AC068057.2
AC103702.1	AC141928.1	AC003102.1	AC093627.10
AL008733.1	ADAMTS7	AC003102.3	AC132807.1
ANKRD18DP	AFAP1L1	AC005082.12	ACY3
ARHGAP22	AGAP3	AC009237.1	AE000661.37
C10orf114	ARC	AC009469.1	AGR2
C20orf197	C9orf118	AC055876.1	AIF1L
C3orf80	COL6A1	AC104820.2	AL163953.3
CACNG4	CRIP2	AC138649.1	AMN
CCDC113	DFNB31	ACTN2	ANKRD63
CCDC162P	DLGAP3	ACTN3	ANXA1
CD36	EPHB3	ACVR2B	AP003774.4
CDKN2C	FHAD1	ACVR2B-AS1	AREG
CEL	FLT4	ADAM32	ATP8B4
CNNM1	GLIS2	AF131215.4	AZU1
CTA-109P11.4	HSPD1P11	AGAP1	B3GNTL1
CTD-2335A18.1	KIF26B	AKAP5	BAALC
FAM81B	KIRREL	AKR1C2	BIK
FAM91A2	MARC2	AKR1E2	C10orf11
FNBP1L	MLNR	AL132709.8	C16orf74
H2AFY2	NDRG2	ALDH1A1	C1orf126
HOXA10	PAM	ALOX12	C1orf186
HOXA11-AS	PLIN2	AMOTL1	C20orf166-AS1
HOXA3	PTPN14	ANK1	C21orf128
HOXA6	RARRES2	ANKFN1	C8orf73
HOXA9	RD3	ANKRD31	C9orf139
HOXA-AS3	RGMA	ANKRD53	CACNB4
HOXA-AS4	RP11-1134I14.2	AP000688.8	CCDC73
HOXB2	RP11-139K1.2	AP001347.6	CCNA1
HOXB3	RP11-176D17.3	APBA2	CD244
HOXB4	RP11-258A12.3	APBB1	CD300A
HOXB5	RP11-309I15.1	APOC1	CD300LF
HOXB6	RP11-353N4.5	AQP1	CD33
HOXB7	RP11-54O7.3	AR	CD34
HOXB-AS3	RP11-57H14.2	ARHGAP21	CD38
hsa-mir-10a	RP11-616M22.3	ARHGAP39	CEACAM4
ITGB3	RP11-616M22.5	ARHGAP42	CHD5
KCNK5	RP11-618I10.1	ARHGEF12	CLC
LANCL3	RSPO1	ARHGEF25	CLEC12A
MED12L	SCGB3A1	ARHGEF26	CLEC12B
MEIS1	SHANK1	ARHGEF37	CMTM4
NKX2-3	SLCO5A1	ART4	CP
PDE3A	ST18	ASAP3	CPNE2
PDE4DIP	TCF7L2	ASPG	CPT1B
PDGFD	TPPP3	ATP8A2	CPXM1
PIEZ02	TRH	B3GNT4	CRLF2
PLXDC2	ZFYVE9	BACH2	CSF1R
PLXNC1		BAI3	CTB-133G6.1
PRDM16		BCAR1	CTD-2349B8.1
RBPM52		BCL11B	CTD-2562J15.1
RP11-1055B8.3		BCL2L11	CXorf21
RP11-1055B8.4		BEST3	DEPDC7
RP11-112J1.2		BEX2	DGKG
RP11-129J12.2		C15orf48	DIAPH2
RP11-353N4.4		C17orf96	DOC2A
RP11-354E11.2		C1orf116	FAAH
RP11-357H14.19		C3	FLT3
RP1-163G9.1		C3orf14	FSTL3
RP1-170O19.20		C3orf20	GAL3ST2
SCHIP1		C3orf67	GCNT1
SDPR		C5orf4	GGT5
SELP		CACHD1	GLIPR1
SEPP1		CAMK4	GPR114
SLC40A1		CAND2	GPR124
SNED1		CATSPERB	GPR162
VWF		CCDC152	GPSM1

Upregulated in both	Downregulated in both	Up in NUP98-KDM5A, down in NUP98-NSD1	Down in NUP98-KDM5A, up in NUP98-NSD1
XIRP2		CCDC64 CCDC68 CCNL CCR7 CD247 CD28 CD46P1 CD5 CD6 CDC42BPA CDH1 CDHR3 CDKL4 CECR7 CHAC1 CMTM8 CNN3 CN RIP1 CNTN4 COL15A1 COL25A1 COL6A6 CPEB2 CR1L CRABP2 CRISP2 CSDC2 CSPG4P5 CTH CTNNA3 CTSL1 CTTN CTXN1 CXADR CXCL5 CXCR3 DAB2IP DCBLD2 DCST1 DGKI DHDH DLG3 DLK1 DMD DMGDH DMPK DMRTA2 DMWD DNAH8 DNALI1 DPPA4 DPY19L2P1 DSEL DTX1 DTX3 DUSP4 EBF1 EDIL3 EGLN3 ENPP4 EOMES EPB41L4A EPB41L5 EPB42 EPB49 EPCAM EPHA4 EPHX2 EXPH5	GPT2 GUCY1A3 HDAC9 HOMER3 HPGDS HRH4 hsa-mir-4763 HSH2D IGKV1-22 IGKV2-23 IL3RA ITPRIPL2 KANK1 KIAA1383 KIT LAIR1 LAMA3 LDLRAD2 LRRC1 LY86 MAMDC2 MANEAL MDF1 MGST1 MLKL MTND2P28 MUC19 NAIP NETO2 NPM2 NRXN2 OLFML2A OLIG1 OSBPL1A PDZD7 PGAM1P10 PIWIL4 PLCB1 PLCB1-IT1 PLCB2 PRAM1 PRDM8 PRHOXNB PRODH PROM1 PRRG4 PRTN3 RAB44 RFX8 RHPN1 RNASE2 RNASE3 RP11-12A2.1 RP11-269C23.3 RP11-271K11.5 RP11-274M4.1 RP11-312P12.2 RP11-325F22.2 RP11-341G23.4 RP11-380M3.1 RP11-38J22.6 RP11-398F12.1 RP11-443B7.1 RP11-443B7.3 RP11-511P7.2 RP11-588K22.2 RP11-84C10.2 RP11-946L16.1 RP4-728D4.2

Upregulated in both	Downregulated in both	Up in NUP98-KDM5A, down in NUP98-NSD1	Down in NUP98-KDM5A, up in NUP98-NSD1
		FAM115D	RPA4
		FAM127A	RTN4R
		FAM127C	S100Z
		FAM178B	SCD5
		FAM186B	SKAP2
		FAM211A	SLC17A9
		FAM83F	SLC1A3
		FASLG	SLC2A5
		FAT4	SPINK2
		FBLN1	SPNS2
		FBLN7	SPNS3
		FHDC1	ST3GAL4
		FKBP10	SUCNR1
		FKBP14	SV2B
		FOXJ1	TFEC
		FRAS1	TMEM221
		FREM1	TMEM51
		GABRE	TMT2C
		GAD1	TNFSF13B
		GAL	TOP1MT
		GCNT2	TRBV27
		GCNT4	TRBV8
		GCSAML-AS1	TRIM71
		GLB1L2	TTLL6
		GLB1L3	U1
		GLRB	U47924.11
		GLYCTK-AS1	U66061.31
		GMPR	UMODL1
		GNG11	UTF1
		GPC5	VWA1
		GPC6	WDR49
		GPR15	
		GPR173	
		GPR68	
		GRHL1	
		GRTP1	
		GSTM3	
		GSTM5	
		GULP1	
		GYPA	
		GYPB	
		GYPE	
		GZMM	
		HAPLN3	
		HBG1	
		HBQ1	
		HCN2	
		HEMGN	
		HEY2	
		HFM1	
		HIF3A	
		HIST1H2AJ	
		HIST1H2BM	
		HIST1H3E	
		HIST1H4F	
		HIST2H3DP1	
		HLF	
		HMGA2	
		HMGB1P20	
		HOMER1	
		HOOK1	
		HRC	
		HRK	
		HS3ST4	
		ICOS	
		IFI27	
		IFIT1B	
		IGF1R	
		IGF2BP1	

Upregulated in both	Downregulated in both	Up in NUP98-KDM5A, down in NUP98-NSD1	Down in NUP98-KDM5A, up in NUP98-NSD1
		IGLV6-57	
		IGSF11	
		IGSF3	
		IGSF9	
		IKZF3	
		IL21R	
		IL2RB	
		INPP5J	
		IRF4	
		IRF6	
		IRX1	
		IRX5	
		ITK	
		ITPKA	
		JMY	
		KBTBD12	
		KCNJ12	
		KCNQ4	
		KCP	
		KIAA1377	
		KIF5A	
		KLF1	
		KLRC3	
		KREMEN1	
		KRT8P31	
		KRT8P34	
		LA16c-349E10.1	
		LCA5	
		LCK	
		LDOC1	
		LEF1	
		LEF1-AS1	
		LEFTY2	
		LGR4	
		LGR6	
		LIN28B	
		LINC00570	
		LINC00654	
		LMCD1	
		LPIN3	
		LRRC2	
		LRRC49	
		LRRC7	
		LRRC73	
		LRRC8E	
		LRRN3	
		LRRN4CL	
		LTA	
		MAGEE1	
		MAGI1	
		MAGI2-AS3	
		MAMLD1	
		MAOA	
		MAP3K13	
		MAP9	
		MAPK10	
		MATN2	
		MB21D2	
		MECOM	
		MEG3	
		MEIOB	
		MEIS2	
		MET	
		MEX3A	
		MIR4732	
		MLLT3	
		MOBP	
		MSX2	
		MTUS2-AS1	

Upregulated in both	Downregulated in both	Up in NUP98-KDM5A, down in NUP98-NSD1	Down in NUP98-KDM5A, up in NUP98-NSD1
		MTX3	
		MYEF2	
		MYL4	
		MYL9	
		MYO16	
		MYO18B	
		MYO3B	
		NAP1L3	
		NBEA	
		NCKAP1	
		NCR2	
		NDRG4	
		NEIL1	
		NELL2	
		NEO1	
		NFATC4	
		NFIA	
		NGFRAP1	
		NKAIN2	
		NLGN1	
		NUDT10	
		NUDT11	
		NUP62CL	
		ONECUT2	
		OPTN	
		OSBP2	
		OTUD7B	
		P2RY10	
		PAIP2B	
		PAQR9	
		PARD3B	
		PARK2	
		PBK	
		PBX1	
		PCDH9	
		PCDHB13	
		PCDHB14	
		PCDHB9	
		PCGF2	
		PCYT1B	
		PDZK1IP1	
		PGF	
		PHLDB1	
		PHLDB2	
		PHOSPHO1	
		PI4K2A	
		PIR	
		PKIA	
		PKP2	
		PLAG1	
		PLCL1	
		PLEK2	
		PLEKHA8	
		PLEKHG1	
		PLEKHG4B	
		PLOD2	
		PLSCR4	
		PON2	
		PPAPDC3	
		PPP2R3A	
		PRAME	
		PRDX2	
		PRKG2	
		PRL	
		PROX1	
		PRPH2	
		PRR15	
		PRRG1	
		PRRT2	

Upregulated in both	Downregulated in both	Up in NUP98-KDM5A, down in NUP98-NSD1	Down in NUP98-KDM5A, up in NUP98-NSD1
		PRTFDC1	
		PSD3	
		PTCH1	
		PTGER3	
		PTPRU	
		PTRF	
		PURG	
		RAB30	
		RAB36	
		RAPGEF5	
		RASSF6	
		RBFOX2	
		RBM11	
		RGMB	
		RGS16	
		RGS22	
		RGS6	
		RHAG	
		RHCE	
		RHD	
		RIC3	
		RIMS3	
		RNF144A-AS1	
		RNF150	
		RNF182	
		ROBO1	
		ROBO2	
		ROR1	
		RORA	
		RP11-104L21.2	
		RP11-11N9.4	
		RP11-1299A16.3	
		RP11-136K14.1	
		RP11-136K14.2	
		RP11-13K12.1	
		RP11-214C8.2	
		RP11-229C3.2	
		RP11-26F2.1	
		RP11-277P12.20	
		RP11-277P12.6	
		RP11-281P23.1	
		RP11-296E7.1	
		RP11-313J2.1	
		RP11-348F1.3	
		RP11-382A20.2	
		RP11-382A20.3	
		RP11-382A20.4	
		RP11-384P7.7	
		RP11-463O12.3	
		RP11-501I20.5	
		RP11-548K23.11	
		RP11-553I6.2	
		RP11-56N19.5	
		RP11-571M6.6	
		RP11-578F21.10	
		RP11-578F21.12	
		RP11-57H12.2	
		RP11-594N15.3	
		RP11-659G9.3	
		RP11-66D17.5	
		RP11-673E1.3	
		RP11-734I18.1	
		RP11-844P9.2	
		RP11-87G24.6	
		RP1-18D14.7	
		RP11-90D4.2	
		RP11-94L15.2	
		RP1-34L19.1	
		RP3-453I5.2	

Upregulated in both	Downregulated in both	Up in NUP98-KDM5A, down in NUP98-NSD1	Down in NUP98-KDM5A, up in NUP98-NSD1
		RP4-811H24.9	
		RP5-1071N3.1	
		RP5-877J2.1	
		RP5-884M6.1	
		RPL36AP15	
		RPS6KL1	
		RRAS2	
		RYR3	
		SALL2	
		SCML1	
		SCN9A	
		SCRN1	
		SDR42E1	
		SELENBP1	
		SEMA3C	
		SERPINE2	
		SFRP1	
		SGIP1	
		SH2D1B	
		SH2D2A	
		SH3BGRL2	
		SIT1	
		SKAP1	
		SLAMF7	
		SLC16A1	
		SLC16A10	
		SLC22A1	
		SLC22A23	
		SLC25A27	
		SLC2A4	
		SLC30A10	
		SLC30A4	
		SLC35G1	
		SLC41A1	
		SLC4A1	
		SLC7A11	
		SLC7A3	
		SLC9C1	
		SLFN13	
		SMPDL3A	
		SNX22	
		SNX25	
		SOBP	
		SOWAHC	
		SOX5	
		SOX6	
		SPAG16	
		SPTB	
		SPTBN4	
		SSTR3	
		STAC	
		STK31	
		STK33	
		SULT4A1	
		SYDE1	
		SYDE2	
		SYNGR3	
		TAL1	
		TBC1D8B	
		TBX2	
		TBX21	
		TEAD1	
		TEAD2	
		TEX15	
		TGM2	
		THEM5	
		THRBL	
		TIAM1	
		TIMP3	

Upregulated in both	Downregulated in both	Up in NUP98-KDM5A, down in NUP98-NSD1	Down in NUP98-KDM5A, up in NUP98-NSD1
		TMEM133	
		TMEM136	
		TMEM163	
		TMEM246	
		TMEM45A	
		TMEM56	
		TMEM98	
		TMOD1	
		TMPRSS4	
		TNS1	
		TRAV13-1	
		TRBV2	
		TRBV26OR9-2	
		TRIM32	
		TRO	
		TRPC1	
		TRPV3	
		TRPV6	
		TSPAN6	
		TSPYL5	
		TUBB2A	
		TUBB4A	
		UBASH3A	
		ULBP1	
		VPREB3	
		VWDE	
		WBP5	
		WWC1	
		XKR6	
		XXbac-BPG154L12.4	
		YPEL4	
		Z83844.1	
		Z95704.2	
		ZC3H12B	
		ZDBF2	
		ZDHHC15	
		ZFP112	
		ZNF205	
		ZNF229	
		ZNF233	
		ZNF300	
		ZNF354C	
		ZNF483	
		ZNF711	
		ZNF876P	
		ZNF883	

Supplemental table 6. GSEA of upregulated genes in NUP98-KDM5A

NUP98-KDM5A upregulated	p.geomean	stat.mean	p.val	q.val	set.size
HADDAD_T_LYMPHOCYTE_AND_NK_PROGENITOR_UP	0.000598	2.599092	8.02E-24	2.59E-20	77
YAGI_AML_FAB_MARKERS	0.000877	2.384706	2.74E-21	3.85E-18	185
ALCALAY_AML_BY_NPM1_LOCALIZATION_UP	0.000862	2.400834	3.58E-21	3.85E-18	137
TAKEDA_TARGETS_OF_NUP98_HOXA9_FUSION_3D_UP	0.002376	2.184332	3.93E-18	3.17E-15	168
MULLIGHAN_NPM1_MUTATED_SIGNATURE_1_UP	0.004158	2.129933	1.48E-17	9.57E-15	235
MIKKELSEN_IPS_WITH_HCP_H3K27ME3	0.013578	2.065304	9.99E-16	5.38E-13	38
TAKEDA_TARGETS_OF_NUP98_HOXA9_FUSION_8D_UP	0.003982	1.973886	4.4E-15	2.03E-12	146
CHYLA_CBFA2T3_TARGETS_DN	0.001421	1.904785	3.16E-14	1.27E-11	209
MEISSNER BRAIN_HCP_WITH_H3K27ME3	0.020603	1.751402	2.28E-12	8.18E-10	112
SENGUPTA_NASOPHARYNGEAL_CARCINOMA_DN	0.011298	1.715433	4.82E-12	1.56E-09	227
MEISSNER_NPC_HCP_WITH_H3K27ME3	0.042981	1.602593	3.32E-10	9.73E-08	29
EPPERT_PROGENITOR	0.003248	1.53758	7.88E-10	2.12E-07	133
RICKMAN_HEAD_AND_NECK_CANCER_B	0.035531	1.556149	1.5E-09	3.67E-07	27
VALK_AML_WITH_FLT3_ITD	0.020594	1.540807	1.59E-09	3.67E-07	39
MULLIGHAN_NPM1_SIGNATURE_3_UP	0.016031	1.453402	3.77E-09	8.11E-07	296
MIKKELSEN_NPC_HCP_WITH_H3K27ME3	0.032826	1.451926	4.34E-09	8.75E-07	153
TAKEDA_TARGETS_OF_NUP98_HOXA9_FUSION_6HR_UP	0.040686	1.45033	5.67E-09	1.08E-06	77
SCHURINGA_STAT5A_TARGETS_UP	0.031033	1.508462	7.08E-09	1.27E-06	21
ACEVEDO_LIVER_CANCER_WITH_H3K27ME3_UP	0.02231	1.41651	9.68E-09	1.64E-06	182
SENGUPTA_NASOPHARYNGEAL_CARCINOMA_WITH_LMP1_UP	0.023429	1.368918	2.5E-08	4.03E-06	344
VERHAAK_GLIOMA_PRONEURAL	0.045116	1.325768	7.01E-08	1.07E-05	132
HOEBKE LYMPHOID_STEM_CELL_DN	0.027499	1.334219	7.32E-08	1.07E-05	85
VECHI_GASTRIC_CANCER_EARLY_DN	0.027356	1.294261	1.39E-07	1.96E-05	211
RIZ_ERYTHROID_DIFFERENTIATION_6HR	0.076289	1.301711	2.33E-07	3.14E-05	25
MADAN_DPP44_TARGETS	0.078973	1.279687	3E-07	3.87E-05	28
PYEON_CANCER_HEAD_AND_NECK_VS_CERVICAL_UP	0.029248	1.256144	3.18E-07	3.94E-05	179
MULLIGHAN_NPM1_MUTATED_SIGNATURE_2_UP	0.047278	1.245729	3.93E-07	4.58E-05	123
MIKKELSEN_IPS_ICP_WITH_H3K27ME3	0.076916	1.276923	3.98E-07	4.58E-05	22
WINZEN_DEGRADED_VIA_KHSRP	0.032411	1.240111	5.78E-07	6.43E-05	77
MOHANKUMAR_TLX1_TARGETS_DN	0.043783	1.206364	8.77E-07	9.44E-05	135
GARGALOVIC_RESPONSE_TO_OXIDIZED_PHOSPHOLIPIDS_BLUE_DN	0.095123	1.177281	1.61E-06	0.000167	53
DAVICIONI_TARGETS_OF_PAX_FOXO1_FUSIONS_DN	0.068249	1.170121	2.01E-06	0.000203	53
TAKEDA_TARGETS_OF_NUP98_HOXA9_FUSION_10D_UP	0.04168	1.153422	2.38E-06	0.000227	183
SENESE_HDAC1_AND_HDAC2_TARGETS_DN	0.047843	1.150997	2.39E-06	0.000227	174
WIERENGA_STAT5A_TARGETS_DN	0.014442	1.145004	2.92E-06	0.000269	204
WANG_MLL_TARGETS	0.034547	1.138642	3.11E-06	0.000279	198
VALK_AML_CLUSTER_2	0.052957	1.168837	3.41E-06	0.000298	29
AFFAR_YY1_TARGETS_DN	0.011992	1.12522	4.45E-06	0.000378	195
WELCH_GATA1_TARGETS	0.027372	1.194534	5.9E-06	0.000488	21
WANG_SMARCE1_TARGETS_UP	0.033772	1.085003	8.13E-06	0.000656	234
REACTOME_AMINE_COMPOUND_SLC_TRANSPORTERS	0.078581	1.162978	8.64E-06	0.000681	12
IZADPANAH_STEM_CELL_ADIPOSE_VS_BONE_DN	0.052994	1.083577	9.57E-06	0.000736	85
MIYAGAWA_TARGETS_OF_EWSR1ETS_FUSIONS_DN	0.036628	1.075216	1E-05	0.000752	172
RICKMAN_HEAD_AND_NECK_CANCER_A	0.072132	1.080627	1.06E-05	0.00078	62
GHANDHI_DIRECT_IRRADIATION_UP	0.034464	1.056209	1.6E-05	0.001127	83
ZHAN_MULTIPLE_MYELOMA_MS_UP	0.052546	1.074227	1.61E-05	0.001127	41
SCHLESINGER_H3K27ME3_IN_NORMAL_AND METHYLATED_IN_CANCER	0.103186	1.120878	1.76E-05	0.001206	11
RADMACHER_AML_PROGNOSIS	0.062317	1.047151	1.85E-05	0.001247	75
KAN_RESPONSE_TO_ARSENIC_TRIOXIDE	0.045517	1.039613	1.99E-05	0.001287	97
LI_WILMS_TUMOR	0.109532	1.082839	1.99E-05	0.001287	15
PLASARI_TGFBI1_TARGETS_10HR_DN	0.040087	1.029198	2.14E-05	0.001355	209
REACTOME_MEIOTIC_RECOMBINATION	0.004888	1.075334	2.26E-05	0.001377	72
BONCI_TARGETS_OF_MIR15A_AND_MIR16_1	0.108876	1.027133	2.26E-05	0.001377	80
BROWNE_HCMV_INFECTION_10HR_UP	0.090763	1.012111	2.93E-05	0.00175	90
BENPORATH_ES_1	0.017338	1.006021	3.19E-05	0.001874	327
DELYS_THYROID_CANCER_DN	0.040985	1.006796	3.26E-05	0.001878	178
WANG_SMARCE1_TARGETS_DN	0.055603	0.996219	3.59E-05	0.002001	324
CHIANG_LIVER_CANCER_SUBCLASS_CTNNB1_UP	0.088285	0.999512	3.6E-05	0.002001	118
KONDO_PROSTATE_CANCER_WITH_H3K27ME3	0.080743	1.004597	3.72E-05	0.002035	70
ALONSO_METASTASIS_DN	0.126561	1.014183	4E-05	0.002155	20
PLASARI_TGFBI1_SIGNALING_VIA_NFIC_1HR_DN	0.086556	0.992195	4.2E-05	0.002224	87
KORKOLA_YOLK_SAC_TUMOR	0.108891	0.998244	4.34E-05	0.002259	41
HELLER_HDAC_TARGETS_SILENCED_BY METHYLATION_UP	0.026148	0.980366	4.64E-05	0.002367	387
FIGUEROA_AML METHYLATION_CLUSTER_1_UP	0.064964	0.985086	4.73E-05	0.002367	104
GRAHAM_CML QUIESCENT_VS NORMAL QUIESCENT_UP	0.010193	1.009571	4.77E-05	0.002367	83
MIKKELSEN_MEF_ICP_WITH_H3K4ME3_AND_H3K27ME3	0.116918	1.011528	4.88E-05	0.002388	19
REACTOME_RNA_POL_I_PROMOTER_OPENING	0.003518	1.053611	5.16E-05	0.002484	52
KONDO_PROSTATE_CANCER_HCP_WITH_H3K27ME3	0.127023	0.976462	5.44E-05	0.002581	62
REACTOME_GENERIC_TRANSCRIPTION_PATHWAY	0.02121	0.968851	5.99E-05	0.002802	315
NOUZOVA_METHYLATED_IN_AP1	0.141235	0.96137	7.05E-05	0.003253	47
REACTOME_MEIOSIS	0.011013	0.981617	7.17E-05	0.003262	98
SELBOS_HEAD_AND_NECK_CANCER_WITH HPV_UP	0.077483	0.961694	7.42E-05	0.003284	72
SMID_BREAST_CANCER_RELAPSE_IN_BONE_DN	0.05247	0.953543	7.43E-05	0.003284	226
REACTOME_RNA_POL_I_RNA_POL_II_AND_MITOCHONDRIAL_TRANScription	0.020388	0.964342	8.08E-05	0.003523	109
REACTOME_MUSCLE_CONTRACTION	0.110684	0.951664	9.22E-05	0.003921	35
WAMUNYOKOLI_OVARIAN_CANCER_LMP_DN	0.074901	0.939815	9.23E-05	0.003921	174
HOELZEL_NF1_TARGETS_UP	0.077158	0.934299	0.000107	0.004505	108
ZHOU_INFAMMATORy_RESPONSE_LPS_UP	0.038227	0.921787	0.000122	0.005054	294
WONG_ENDOMETRIUM_CANCER_DN	0.060412	0.931178	0.000133	0.005424	57
HERNANDEZ_ABERRANT MITOSIS_BY_DOCETACEL_4NM_UP	0.137374	0.941808	0.000135	0.005437	16
NAKAYAMA_SOFT_TISSUE_TUMORS_PCA2_UP	0.017076	0.937934	0.000152	0.00602	75
VANHARANTA_UTERINE_FIBROID_DN	0.113219	0.912941	0.000153	0.00602	60
VANDESLOOS_NORMAL_EMBRYOS_DN	0.110453	0.932512	0.000159	0.00617	22
LI_CISPLATIN_RESISTANCE_DN	0.097392	0.932222	0.000168	0.006457	23
RICKMAN_METASTASIS_UP	0.073152	0.89718	0.000174	0.006553	326
RAMASWAMY_METASTASIS_DN	0.110625	0.904686	0.000176	0.006553	44
TAVAZOIE_METASTASIS	0.113052	0.902242	0.000177	0.006553	72
REACTOME_RNA_POL_I_TRANScription	0.013142	0.925766	0.000183	0.006703	77
MIKKELSEN_MEF_ICP_WITH_H3K27ME3	0.116033	0.89373	0.000194	0.007038	99
LEE_LIVER_CANCER_MYC_TGFA_DN	0.136328	0.895273	0.000201	0.007224	46
TSENG_ADIPGENIC_POTENTIAL_UP	0.129761	0.904093	0.000207	0.007346	25
TRAYNOR_RETTE Syndrom_UP	0.142524	0.889859	0.000242	0.008505	29
REACTOME_DEPOSITION_OF_NEW_CENPA_CONTAINING_NUCLEOSOMES_AT_THE_CENTROMERE	0.009279	0.932431	0.000246	0.008523	58
CUI_TCF21_TARGETS_2_UP	0.017068	0.874169	0.000256	0.008802	367
YANG_BCL3_TARGETS_UP	0.025414	0.872502	0.000262	0.008902	309
MIKKELSEN_ES_HCP_WITH_H3K27ME3	0.151349	0.904817	0.000266	0.00896	13
CAIRO_HEPATOBlastoma_UP	0.090522	0.864121	0.000289	0.009616	196

NUP98-KDM5A upregulated	p.geomean	stat.mean	p.val	q.val	set.size
FIGUEROA_AML METHYLATION_CLUSTER_3_UP	0.09898	0.859657	0.000315	0.010378	137
BROWNE_HCMV_INFECTION_30MIN_DN	0.131355	0.85763	0.00032	0.010431	117
VALK_AML_CLUSTER_15	0.10135	0.891798	0.000324	0.010443	31
MIKKELSEN_MCV6_ICP_WITH_H3K4ME3_AND_H3K27ME3	0.129867	0.878319	0.000338	0.01081	20
PETROVA_ENDOTHELIUM_LYMPHATIC_VS_BLOOD_DN	0.056093	0.840146	0.000408	0.012924	143
BROWNE_HCMV_INFECTION_6HR_DN	0.152278	0.834584	0.000439	0.013753	149
WEBER_METHYLATED_HCP_IN_FIBROBLAST_DN	0.174675	0.846461	0.000472	0.014643	17
HORIUCHI_WTAP_TARGETS_UP	0.067758	0.826277	0.000496	0.015251	277
REACTOME_AMYLOIDS	0.008015	0.867357	0.000503	0.015325	62
WILCOX_RESPONSE_TO_PROGESTERONE_UP	0.041899	0.831278	0.000527	0.015904	132
NAKAMURA_ADIPGENESIS_EARLY_DN	0.098899	0.837328	0.00058	0.01733	30
MIKKELSEN_NPC_ICP_WITH_H3K4ME3	0.074308	0.812698	0.000595	0.017611	371
REACTOME_PACKAGING_OF_TELOMERE_ENDS	0.015423	0.86842	0.000616	0.018063	42
REACTOME_TRANSPORT_OF_GLUCOSE_AND_OTHER_SUGARS_BILE_SALTS_AND_ORGANIC_ACIDS_METALIONS_AND_AMINE_COMPOUNDS	0.119977	0.81726	0.000627	0.018233	55
ADDYA_ERYTHROID_DIFFERENTIATION_BY_HEMIN	0.078741	0.815922	0.000637	0.018332	73
PYEON_CANCER_HEAD_AND_NECK_VS_CERVICAL_DN	0.069329	0.900399	0.000642	0.018332	17
CAIRO_LIVER_DEVELOPMENT_UP	0.091344	0.809814	0.000647	0.018332	141
RODWELLAGING_KIDNEY_DN	0.121261	0.805766	0.000673	0.01889	125
REACTOME_NEUROTRANSMITTER_RELEASE_CYCLE	0.155072	0.820064	0.000689	0.019173	20
ODONNELL_TFR_C_TARGETS_DN	0.008828	0.825773	0.000712	0.019653	111
CHIANG_LIVER_CANCER_SUBCLASS_INTERFERON_DN	0.134513	0.809666	0.000724	0.019806	36
BENPORATH_OCT4_TARGETS	0.132851	0.79566	0.000749	0.0202	254
MCLACHLAN_DENTAL_CARIES_DN	0.139552	0.801729	0.000751	0.0202	62
GRADE_COLON_CANCER_DN	0.164645	0.805159	0.000761	0.02031	29
HELLEBREKERS_SILENCED_DURING_TUMOR_ANGIOGENESIS	0.076133	0.793865	0.000815	0.021559	69
LEE_TARGETS_OF_PTCH1_AND_SUFU_DN	0.157531	0.792615	0.000839	0.022031	58
KEGG_ADHERENS_JUNCTION	0.139274	0.790925	0.000852	0.022079	69
HUMMEL_BURKITTSLYMPHOMA_UP	0.136806	0.798815	0.000855	0.022079	35
VECCHI_GASTRIC_CANCER_ADVANCED_VS_EARLY_UP	0.049857	0.791331	0.000868	0.022196	134
YAUCH_HEDGEHOG_SIGNALING_PARACRINE_DN	0.138424	0.785627	0.000873	0.022196	168
RICKMAN_HEAD_AND_NECK_CANCER_E	0.146592	0.793264	0.000906	0.022725	42
WORSCHECH_TUMOR_REJECTION_UP	0.099979	0.794785	0.000908	0.022725	49
SABATES_COLORECTAL_ADENOMA_DN	0.048511	0.786454	0.000942	0.023334	152
KEGG_ARRHYTHMOGENIC_RIGHT_VENTRICULAR_CARDIOMYOPATHY_ARVC	0.132339	0.78611	0.000947	0.023334	59
VANASSE_BCL2_TARGETS_UP	0.138832	0.789748	0.00098	0.02378	34
RAGHAVACHARI_PLATELET_SPECIFIC_GENES	0.064971	0.782938	0.000986	0.02378	70
REACTOME_FACTORS_INVOLVED_IN_MEGAKARYOCYTE_DEVELOPMENT_AND_PLATELET_PRODUCTION	0.071472	0.782493	0.000987	0.02378	106
LEIN_NEURON_MARKERS	0.16075	0.776182	0.00105	0.024916	51
ENGELMANN_CANCER_PROGENITORS_UP	0.148059	0.778027	0.001051	0.024916	44
ZWANG_DOWN_BY_2ND_EGF_PULSE	0.131064	0.770834	0.001057	0.024916	227
TING_SILENCED_BY_DICER	0.15082	0.783533	0.001093	0.025557	25
GRAESSMANN_RESPONSE_TO_MC_AND_SERUM_DEPRIVATION_UP	0.119993	0.765355	0.001153	0.026787	174
IVANOVA_HEMATOPOEISIS_STEM_CELL_LONG_TERM	0.136981	0.761444	0.001194	0.027534	242
REACTOME_MEIOTIC_SYNAPSIS	0.030911	0.785934	0.00125	0.028487	63
RORIE_TARGETS_OF_EWSR1_FLI1_FUSION_DN	0.171331	0.785043	0.001253	0.028487	14
BROWNE_HCMV_INFECTION_24HR_DN	0.089335	0.754582	0.00136	0.03071	132
REACTOME_STRIATED_MUSCLE_CONTRACTION	0.176859	0.763384	0.001464	0.032819	18
SMID_BREAST_CANCER_LUMINAL_A_UP	0.144092	0.751666	0.001505	0.033494	54
NAKAMURA_ADIPGENESIS_LATE_DN	0.120746	0.756579	0.0016	0.035165	31
GAUSSMANN_MLL_AFA_FUSION_TARGETS_A_DN	0.175421	0.741272	0.001601	0.035165	74
WANG_LSD1_TARGETS_DN	0.158501	0.749482	0.001679	0.036418	26
SATO_SILENCED_BY METHYLATION_IN_PANCREATIC_CANCER_1	0.053488	0.735536	0.001681	0.036418	317
BROWNE_HCMV_INFECTION_16HR_UP	0.099404	0.734734	0.001729	0.037166	208
MOREAUX_MULTIPLE_MYELOMA_BY_TACI_UP	0.082614	0.73272	0.001739	0.037166	309
TURASHVILI_BREAST_LOBULAR_CARCINOMA_VS_DUCTAL_NORMAL_DN	0.163537	0.735963	0.001787	0.037953	57
KUROZUMI_RESPONSE_TO_ONCYCOTIC_VIRUS_AND_CYCLIC_RGD	0.081811	0.781888	0.001819	0.038376	18
PEDERSEN_METASTASIS_BY_ERBB2_ISOFORM_6	0.16789	0.745787	0.00189	0.039438	20
ACEVEDO_LIVER_CANCER_WITH_H3K9ME3_DN	0.103481	0.731653	0.001894	0.039438	97
HOELZEL_NF1_TARGETS_DN	0.114189	0.729887	0.001925	0.039776	84
MEISSNER_NPC_HCP_WITH_H3K4ME3_AND_H3K27ME3	0.109281	0.729041	0.001935	0.039776	97
HOQUE_METHYLATED_IN_CANCER	0.175467	0.730007	0.001954	0.039884	44
LA_MEN1_TARGETS	0.195644	0.736397	0.001965	0.039884	21
CHIARETTI_T_ALL_REFRACTORY_TO_THERAPY	0.165079	0.733904	0.002022	0.040793	30
HOSHIDA_LIVER_CANCER_LATE_RECURRENCE_DN	0.147641	0.722111	0.002134	0.042458	55
VANTVEER_BREAST_CANCER_POOR_PROGNOSIS	0.1186	0.72617	0.00214	0.042458	45
VANTVEER_BREAST_CANCER_METASTASIS_DN	0.041209	0.727809	0.002144	0.042458	111
AMUNDSON_GAMMA_RADIATION_RESPONSE	0.017499	0.772544	0.002189	0.043077	39
KYNG_DNA_DAMAGE_BY_GAMMA_AND_UV_RADIATION	0.179841	0.715238	0.002227	0.043572	79
SU_PLACENTA	0.178777	0.731798	0.002301	0.044736	17
GABRIELY_MIR21_TARGETS	0.107251	0.708287	0.002388	0.04616	273
WIERENGA_STATSA_TARGETS_GROUP1	0.092776	0.708648	0.002469	0.047428	123
SENESE_HDAC2_TARGETS_DN	0.135988	0.707695	0.002483	0.047428	93
BOYLAN_MULTIPLE_MYELOMA_C_D_UP	0.150371	0.703859	0.002533	0.048107	130
BOSCO_TH1_CYTOTOXIC_MODULE	0.061027	0.703588	0.002694	0.05086	97
LI_WILMS_TUMOR_VS_FETAL_KIDNEY_1_DN	0.024531	0.702535	0.0029	0.05442	156
WORSCHECH_TUMOR_EVASION_AND_TOLEROGENICITY_UP	0.154939	0.704352	0.002938	0.054818	24
HANN_RESISTANCE_TO_BCL2_INHIBITOR_UP	0.176222	0.705636	0.002995	0.055559	21
KEGG_NITROGEN_METABOLISM	0.176669	0.710623	0.003052	0.056304	16
FRASOR_RESPONSE_TO_ESTRADIOL_UP	0.133555	0.702819	0.003093	0.056732	31
MCGARVEY_SILENCED_BY METHYLATION_IN_COLON_CANCER	0.16634	0.698566	0.003156	0.057557	26
CREIGHTON_ENDOCRINE_THERAPY_RESISTANCE_2	0.093979	0.681346	0.003287	0.059306	364
LIEN_BREAST_CARCINOMA_METAPlastic	0.140098	0.696616	0.003289	0.059306	29
GHANDHI_BYSTANDERIRRADIATION_UP	0.061622	0.694842	0.003311	0.059369	65
REACTOME_TELOMERE_MAINTENANCE	0.016747	0.712189	0.003346	0.059671	69
BROWNE_HCMV_INFECTION_20HR_UP	0.109712	0.68082	0.003371	0.059788	220
TANAKA_METHYLATED_IN_ESOPHAGEAL_CARCINOMA	0.222134	0.678537	0.003455	0.060756	67
TURASHVILI_BREAST_LOBULAR_CARCINOMA_VS_LOBULAR_NORMAL_UP	0.151011	0.682348	0.003463	0.060756	65
SATO_SILENCED_BY METHYLATION_IN_PANCREATIC_CANCER_2	0.141945	0.68614	0.003578	0.06217	33
WIERENGA_STATSA_TARGETS_UP	0.056302	0.676688	0.003582	0.06217	198
KIM_ALL_DISORDERS_OLGODENDROCYTE_NUMBER_CORR_DN	0.219999	0.680776	0.003643	0.062885	23
BASAKI_YBX1_TARGETS_DN	0.149257	0.670563	0.003717	0.063665	341
LEIN_LOCALIZED_TO_PROXIMAL_DENDRITES	0.189799	0.677635	0.003732	0.063665	29
ACEVEDO_FGFR1_TARGETS_IN_PROSTATE_CANCER_MODEL_DN	0.118845	0.670952	0.003747	0.063665	216
XU_HGF_TARGETS_INDUCED_BY_AKT1_48HR_DN	0.130568	0.685909	0.004054	0.068247	24
KEGG_STEROID_HORMONE BIOSYNTHESIS	0.192048	0.681356	0.004078	0.068247	17
TANG_SENESCENCE_TP53_TARGETS_DN	0.023668	0.694643	0.00408	0.068247	54
NIKOLSKY_BREAST_CANCER_19Q13.1_AMPLICON	0.100286	0.713482	0.004105	0.068301	22
LINDVALL_IMMORTALIZED_BY_TERT_DN	0.137468	0.664656	0.004226	0.069713	67
PEPPER_CHRONIC_LYMPHOCYTIC_LEUKEMIA_DN	0.185574	0.683187	0.004233	0.069713	14

	p.geomean	stat.mean	p.val	q.val	set.size
NUP98-KDM5A upregulated					
NIKOLSKY_BREAST_CANCER_17Q21_Q25_AMPLICON	0.150558	0.657903	0.004329	0.070937	280
TAVOR_CEBPA_TARGETS_DN	0.150503	0.669747	0.004361	0.071102	30
LOPES_METHYLATED_IN_COLON_CANCER_UP	0.194188	0.671626	0.004393	0.071257	20
REACTOME_PLATELET_AGGREGATION_PLUG_FORMATION	0.136952	0.666726	0.004485	0.072038	31
GREENBAUM_E2A_TARGETS_UP	0.050655	0.693069	0.004486	0.072038	33
NUMATA_CSF3_SIGNALING_VIA_STAT3	0.219319	0.665706	0.00457	0.073027	19
NIKOLSKY_BREAST_CANCER_17Q11_Q21_AMPLICON	0.200528	0.65388	0.004603	0.073194	95
VEGNASUBRAMANIAN_PROSTATE_CANCER	0.174365	0.654913	0.004626	0.073204	81
SABATES_COLORECTAL_ADENOMA_UP	0.113258	0.658881	0.004737	0.074588	72
MCCLUNG_DELTA_FOSB_TARGETS_2WK	0.205209	0.65206	0.004985	0.078047	35
VILIMAS_NOTCH1_TARGETS_UP	0.056403	0.651321	0.005005	0.078047	48
KUNINGER_IGF1_VS_PDGFB_TARGETS_DN	0.186594	0.648284	0.005212	0.080589	38
SHETH_LIVER_CANCER_VS_TXNIP_LOSS_PAMS	0.199648	0.644684	0.005218	0.080589	67
SHEN_SMARCA2_TARGETS_DN	0.115117	0.641516	0.005308	0.081593	198
BILD_E2F3_ONCOGENIC_SIGNATURE	0.133422	0.638549	0.005477	0.083595	214
DARWICHE_PAPILLOMA_RISK_HIGH_VS_LOW_DN	0.227505	0.643651	0.00549	0.083595	28
OHGUCHI_LIVER_HNF4A_TARGETS_UP	0.180409	0.64522	0.005565	0.084344	34
DAWSON METHYLATED_IN LYMPHOMA_TCL1	0.19762	0.637527	0.00602	0.090806	36
AFFAR_YY1_TARGETS_UP	0.151458	0.626024	0.006337	0.095143	154
REICHERT_MITOSIS_LIN9_TARGETS	0.040209	0.6739	0.006427	0.096045	28
REACTOME_FGFR_LIGAND_BINDING_AND_ACTIVATION	0.183639	0.663426	0.006472	0.096094	10
AKL_HTLV1_INFECTION_DN	0.186043	0.626386	0.00649	0.096094	64
SMID_BREAST_CANCER_RELAPSE_IN_BONE_UP	0.206513	0.624367	0.006592	0.097169	61
KRASNOSELSKAYA_ILF3_TARGETS_UP	0.146479	0.631489	0.006722	0.098435	33
ASGHARZADEH_NEUROBLASTOMA_POOR_SURVIVAL_DN	0.223464	0.623971	0.006739	0.098435	37
TONKS_TARGETS_OF_RUNX1_RUNX1T1_FUSION_GRANULOCYTE_UP	0.084835	0.627408	0.006899	0.099839	55
ODONNELL_TARGETS_OF_MYC_AND_TFR_C_DN	0.047311	0.644783	0.006912	0.099839	43
FINAK_BREAST_CANCER_SDPP_SIGNATURE	0.188026	0.636233	0.006981	0.099839	16
ACEVEDO_LIVER_CANCER_WITH_H3K27ME3_DN	0.130456	0.617754	0.007013	0.099839	144
LINDVALL_IMMORTALIZED_BY_TERT_UP	0.164406	0.619791	0.007017	0.099839	64
MAHADEVAN_IMATINIB_RESISTANCE_UP	0.171963	0.64568	0.007021	0.099839	14

Supplemental table 7. GSEA of downregulated genes in NUP98-KDM5A

NUP98-KDM5A downregulated	p.geomean	stat.mean	p.val	q.val	set.size
MARTENS_BOUND_BY_PML_RARA_FUSION	0.000223497	-2.274475042	1.00751E-19	3.25225E-16	437
CASORELLI_ACUTE_PROMYEOCYTIC_LEUKEMIA_UP	0.002155054	-2.212612191	1.26833E-18	2.04708E-15	167
YAGI_AML_WITH_T_8_21_TRANSLOCATION	0.003037509	-2.004872105	8.80024E-16	9.46906E-13	342
DUNNE_TARGETS_OF_AML1_MTGB_FUSION_UP	0.00358183	-2.037279783	3.96775E-15	3.20197E-12	50
VERHAAK_GILOBLASTOMA_MESENCHYMAL	0.000395293	-1.838480203	3.39573E-13	2.19228E-10	209
RUTELLA_RESPONSE_TO_HGF_DN	0.002616894	-1.732148616	4.04806E-12	2.17778E-09	230
DIAZ_CHRONIC_MEYLOGENOUS_LEUKEMIA_DN	0.0003133246	-1.721845965	9.80119E-12	4.51975E-09	114
ROSS_ACUTE_MYELOID_LEUKEMIA_CBF	0.01220114	-1.652180251	6.29501E-11	2.54004E-08	82
DAIRKEE_TERT_TARGETS_UP	0.013671458	-1.567494467	2.29538E-10	7.53577E-08	339
HUANG_GATA2_TARGETS_UP	0.01081822	-1.577504812	2.45264E-10	7.53577E-08	143
THEILGAARD_NEUTROPHIL_AT_SKIN_WOUND_DN	0.011890259	-1.568746024	2.56795E-10	7.53577E-08	221
ROSS_AML_WITH_CBF_MYH11_FUSION	0.004143035	-1.582897063	2.02221E-09	5.43974E-07	51
VERHAAK_AML_WITH_NPM1_MUTATED_DN	0.001122547	-1.465978751	4.98923E-09	1.23886E-06	242
YAGI_AML_RELAPSE_PROGNOSIS	0.049769822	-1.40408311	2.23028E-08	5.14239E-06	35
PID_IL8_CXCR2_PATHWAY	0.044107531	-1.387037809	3.81108E-08	8.20145E-06	34
PID_IL8_CXCR1_PATHWAY	0.04623141	-1.380093543	5.28211E-08	1.00707E-05	28
CHYLA_CBA2T3_TARGETS_UP	0.0118855036	-1.338600655	5.30363E-08	1.00707E-05	346
REACTOME_TOLL_RECEPTOR CASCADES	0.030765599	-1.31275103	1.07522E-07	1.91991E-05	113
ROSS_AML_WITH_PML_RARA_FUSION	0.003034966	-1.232429036	8.3021E-07	0.000106603	146
FLOTHO_PEDIATRIC_ALL_THERAPY_RESPONSE_UP	0.017057576	-1.244971133	8.5864E-07	0.000106603	61
GINESTIER_BREAST_CANCER_ZNF217_AMPLIFIED_DN	0.029351378	-1.251288659	3.30365E-07	5.07818E-05	310
JOHNSTONE_PARVB_TARGETS_3_UP	0.00745501	-1.235628763	4.74547E-07	6.96295E-05	405
TONKS_TARGETS_OF_RUNX1_RUNX1T1_FUSION_ERYTHROCYTE_UP	0.014271149	-1.238863105	5.31485E-07	7.45928E-05	149
MILL_PSEUDOPODIA_CHEMOTAXIS_DN	0.047295197	-1.215678434	6.1791E-07	8.31088E-05	446
BROWN_MYELOID_CELL_DEVELOPMENT_UP	0.030765599	-1.215678434	6.1791E-07	8.31088E-05	446
HADDAD_T_LYMPHOCYTE_AND_NK_PROGENITOR_DN	0.017057576	-1.244971133	8.5864E-07	0.000106603	61
REN_ALVEOLAR_RHABDOMYOSARCOMA_DN	0.016363931	-1.198936025	9.2914E-07	0.000111084	389
VALK_AML_WITH_EVI1	0.064657760	-1.241455612	1.02231E-06	0.000117858	23
TIEN_INTESTINE_PROBiotics_6HR_UP	0.042666323	-1.223076193	1.09535E-06	0.000121923	54
BILANGES_SERUM_AND_RAPAMYCIN_SENSITIVE_GENES	0.030393511	-1.211523297	1.38189E-06	0.000148691	67
REACTOME_TCA_CYCLE_AND_RESPIRATORY_ELECTRON_TRANSPORT	0.032710505	-1.184574697	1.70414E-06	0.000177451	113
HOSHIDA_LIVER_CANCER_SUBCLASS_S1	0.013936853	-1.17338658	1.76597E-06	0.000178142	232
SPIELMAN_LYMPHOBLAST_EUROPEAN_VS_ASIAN_UP	0.018027452	-1.154139881	2.19866E-06	0.000209003	472
PARK_TRETINOIN_RESPONSE_AND_PML_RARA_FUSION	0.038700698	-1.202378384	2.26374E-06	0.000209003	30
REACTOME_METABOLISM_OF_MRNA	0.011321597	-1.166235211	2.26615E-06	0.000209003	212
CHAUHAN_RESPONSE_TO METHOXYESTRADOL_DN	0.034912819	-1.159219153	2.65691E-06	0.000238236	97
REACTOME_SIGNALLING_BY_NGf	0.07412415	-1.133337484	3.17752E-06	0.000277218	197
MORI_MATURE_B_LYMPHOCYTE_UP	0.031800823	-1.138541531	3.80436E-06	0.000318172	87
REACTOME_INNATE_IMMUNE_SYSTEM	0.023062393	-1.128870655	3.84409E-06	0.000318172	206
REACTOME_ACTIVATED_TLR4_SIGNALLING	0.064740891	-1.129523475	3.97467E-06	0.00031855	90
REACTOME_3_UTR_MEDiated_TRANSLATIONAL_REGULATION	0.013675919	-1.152035889	4.04602E-06	0.00031855	108
KEGG_RIBOSOME	0.01640477	-1.154502239	4.54152E-06	0.000347936	86
REACTOME_METABOLISM_OF_RNA	0.010576405	-1.124757733	4.6966E-06	0.000347936	257
REACTOME_INFLUENZA_VIRAL_RNA_TRANSCRIPTION_AND_REPLICATION	0.017814660	-1.141172553	4.74263E-06	0.000347936	103
ICHIBA_GRAFT_VERSUS_HOST_DISEASE_3SD_UP	0.007288231	-1.1237737318	6.32852E-06	0.000451279	122
REACTOME_MYD88_MAL CASCADE_INITIATED_ON_PLASMA_MEMBRANE	0.0722904	-1.103576236	6.43087E-06	0.000451279	80
REACTOME_NONSENSE_MEDiated_DECAY_ENHANCED_BY_THE_EXON_JUNCTION_COMPLEX	0.018927859	-1.117194911	7.04138E-06	0.000480925	108
RAMALHO_STEMNESS_DN	0.044058583	-1.106145255	7.21658E-06	0.000480925	67
CASORELLI_APL_SECONDARY_VS_DE_NOVO_UP	0.049237817	-1.120340141	7.30029E-06	0.000480925	37
REACTOME_PEPTIDE_CHAIN_ELONGATION	0.017832823	-1.123274034	7.48385E-06	0.000483157	87
GINESTIER_BREAST_CANCER_2Q013_AMPLIFICATION_DN	0.062485122	-1.085703726	8.13201E-06	0.000506318	166
MULLIGHAN_MLL_SIGNATURE_2_DN	0.002142244	-1.096905578	8.1563E-06	0.000506318	264
REACTOME_SRPF_DEPENDENT_COTRANSLATIONAL_PROTEIN_TARGETING_TO_MEMBRANE	0.015199955	-1.108426839	8.50488E-06	0.000509361	111
PARK_APL_PATHOGENESIS_DN	0.023748263	-1.121966364	8.5209E-06	0.000509361	48
BILANGES_SERUM_RESPONSE_TRANSLATION	0.088256439	-1.094979377	1.1064E-05	0.000649354	31
PENG GLUTAMINE_DEPRIVATION_DN	0.01900731	-1.053617575	1.47184E-05	0.000848413	327
ZHANG_TLX_TARGETS_60HR_UP	0.045794539	-1.038373548	1.80245E-05	0.001020758	265
OSMAN_BLADDER_CANCER_DN	0.029493968	-1.030706272	2.08402E-05	0.001159864	378
HOEBEKE_LYMPHOID_STEM_CELL_UP	0.070820821	-1.021629562	2.67438E-05	0.001463203	93
VALK_AML_CLUSTER_11	0.06593129	-1.025025208	3.47439E-05	0.001869222	36
YAO_TEMPORAL_RESPONSE_TO_PROGESTERONE_CLUSTER_13	0.039765383	-1.026681337	3.75505E-05	0.001987101	168
REACTOME_INFLUENZA_LIFE_CYCLE	0.025751154	-1.007471043	4.04155E-05	0.002104212	137
ZHONG_SECRETOME_OF_LUNG_CANCER_AND_FIBROBLAST	0.079364131	-1.078503914	4.43172E-05	0.00227073	122
CREIGHTON_AKT1_SIGNALING_VIA_MTOR_DN	0.011038612	-1.010454587	4.8475E-05	0.002439853	22
KEGG_STARCH_AND_SUCROSE_METABOLISM	0.011555506	-1.004277336	4.91296E-05	0.002439853	22
KEGG_OXIDATIVE_PHOSPHORYLATION	0.047539619	-0.991253644	5.19052E-05	0.002502683	103
LI_INDUCED_T_TO_NATURAL_KILLER_UP	0.0097408	-0.981217751	5.19454E-05	0.002502683	293
GARY_CDS_TARGETS_UP	0.038851481	-0.969729613	5.61862E-05	0.002667193	457
BIOCARTA_MAPK_PATHWAY	0.0115832369	-0.968030697	6.12039E-05	0.00286328	86
MOOTHA_PGC	0.043080414	-0.959868584	6.56335E-05	0.003026643	394
SWEET_KRAS_ONCOGENIC_SIGNATURE	0.092385518	-0.960972715	7.07956E-05	0.003218707	84
REACTOME_RESPIRATORY_ELECTRON_TRANSPORT_ATP_SYNTHESIS_BY_CHEMOSMOTIC_COUPLING_AND_HEAT_PRODUCTION_BY_UNCOUPLING_PROTEINS	0.049828987	-0.977870612	7.41787E-05	0.003270974	78
CREIGHTON_AKT1_SIGNALING_VIA_MTOR_UP	0.132720164	-0.965514842	7.42535E-05	0.003270974	31
WELCSH_BRCA2_TARGETS_DN	0.063561826	-0.957792336	7.49851E-05	0.003270974	136
SWEET_LUNG_CANCER_KRAS_UP	0.019555876	-0.94646665	8.40959E-05	0.003619488	436
KEGG_GLYCOLYSIS_GLUCONEOGENESIS	0.107390413	-0.948029119	9.70014E-05	0.004117931	44
MULLIGHAN_NPM1_MUTATED_SIGNATURE_2_DN	0.106791504	-0.940600103	9.82282E-05	0.004117931	70
YAO_TEMPORAL_RESPONSE_TO_PROGESTERONE_CLUSTER_17	0.039411312	-0.942136652	0.000100073	0.004134502	177
ACEVEDO_NORMAL_TISSUE_ADJACENT_TO_LIVER_TUMOR_DN	0.060517606	-0.933022056	0.000101185	0.004134502	315
DANG_MYC_TARGETS_UP	0.042893135	-0.931892876	0.000116107	0.004650271	139
IIZUKA_LIVER_CANCER_PROGRESSION_L0_L1_DN	0.100075886	-0.962892046	0.000118029	0.004650271	21
REACTOME_TRIF_MEDiated_TLR3_SIGNALING	0.114644252	-0.928510421	0.00011813	0.004650271	71
PARK_TRETINOIN_RESPONSE_AND_RARA_PLZF_FUSION	0.075493797	-0.952988716	0.000136502	0.0050308775	22
PEPPER_CHRONIC_LYMPHOCYTIC_LEUKEMIA_UP	0.094873835	-0.938256321	0.000140749	0.00539925	27
KAYO_CALORIE_RESTRICTION_MUSCLE_UP	0.150711735	-0.912539486	0.000142174	0.00539925	74
RUTELLA_RESPONSE_TO_HGF_VS_CSFR2B_AND_IIL4_UP	0.045422879	-0.9171600	0.000145804	0.005472749	393
ISSAEVA_MLL2_TARGETS	0.0130399772	-0.918370862	0.00015247	0.005637374	47
HUMMERICH_SKIN_CANCER_PROGRESSION_DN	0.133699857	-0.907602071	0.000153683	0.005637374	91
HARRIS_HYPoxIA	0.080702066	-0.914092493	0.000159479	0.005784232	71
REACTOME_RESPIRATORY_ELECTRON_TRANSPORT	0.068228175	-0.927456654	0.000163454	0.005857385	63
IVANOVA_HEMATOPOIESIS_INTERMEDIATE_PROGENITOR	0.087933612	-0.904245552	0.000165152	0.005857385	139
KEGG_LYSOSOME	0.061398536	-0.906973514	0.000167555	0.005878995	117
ROSS_AML_WITH_MLL_FUSIONS	0.00919401	-0.944175094	0.00017547	0.006090498	77
LINDGREN_BLADDER_CANCER_CLUSTER_3_DN	0.138154899	-0.891572411	0.000187121	0.006352783	211
DARWICHE_SKIN_TUMOR_PROMOTER_UP	0.113897122	-0.894667972	0.000187421	0.006352783	113
CHNG_MULTIPLE_MYELOMA_HYPERPOLOID_UP	0.061782373	-0.926856241	0.00019046	0.006352783	51
CRONQUIST_NRS SIGNALING_UP	0.053209854	-0.921600441	0.000190988	0.006352783	39
GAZDA_DIAMOND_BLACKFAN_ANEMIA_ERYTHROID_DN	0.126622892	-0.885068968	0.000203221	0.006693855	458
YAGI_AML_WITH_11Q23_REARRANGED	0.112304314	-0.885013689	0.000206058	0.00670625	323
PID_CMV_PATHWAY	0.126273234	-0.889205709	0.000209043	0.00670625	80
MUNSHI_MULTIPLE_MYELOMA_UP	0.132333291	-0.889179078	0.00020983	0.00670625	74
MCBRYAN_PUBERTAL_BREAST_4_5WK_UP	0.118458969	-0.880462604	0.000225856	0.007120893	168
DARWICHE_PAPILLOMA_RISK_HIGH_UP	0.104336588	-0.88249818	0.000227216	0.007120893	116
SCHLOSSER_SERUM_RESPONSE_UP	0.121856932	-0.880951931	0.000230502	0.007154413	118
RIZKI_TUMOR_INVASIVENESS_2D_UP	0.169550125	-0.877029069	0.000243722	0.007492722	61
MORI_IMMATURE_B_LYMPHOCYTE_UP	0.04941025	-0.891891959	0.000257511	0.007841929	51
ZHOU_INFLAMMATORY_RESPONSE_LIVE_UP	0.095043783	-0.869897867	0.000260901	0.007848881	326
ODONNELL_TARGETS_OF_MyC_AND_TFRC_UP	0.055320883	-0.88112105	0.000262602	0.007848881	78
REACTOME_GLUCOSE_METABOLISM	0.142260352	-0.872916068	0.000273713	0.008105919	58
CHUNG_BLISTER_CYTOTOXICITY_UP	0.114925722	-0.878478548	0.000276971	0.008127834	43
VALK_AML_CLUSTER_4	0.147502158	-0.871751253	0.000311128	0.008944683	28
LI_DCP2_BOUND_MRNA	0.100542131	-0.867579556	0.000313519	0.008944683	88
REACTOME_MAP_KINASE_ACTIVATION_IN_TLR CASCADE	0.1048971124	-0.864362425	0.000315683	0.008944683	49
REACTOME_NFKB_AND_MAP_KINASES_ACTIVATION_MEDiated_BY_TLR4_SIGNALING_REPERTOIRE	0.117168521	-0.864148951	0.00031589	0.008944683	69

NUP98-KDM5A downregulated	p.geomean	stat.mean	p.val	q.val	set.size
JOHNSTONE_PARVB_TARGETS_2_UP	0.090954449	-0.860030693	0.000321046	0.009011617	132
GOLUB_ALL_VS_AML_DN	0.083648887	-0.888906779	0.000340888	0.009388029	24
WANG_ESOPHAGUS_CANCER_VS_NORMAL_UP	0.09034681	-0.885753111	0.000342294	0.009388029	109
ALCALA_APOPTOSIS	0.126596861	-0.856780425	0.000343181	0.009388029	86
KESHELAVA_MULTIPLE_DRUG_RESISTANCE	0.135923673	-0.853993007	0.000348794	0.009461415	81
SEMENTZA_HIF1_TARGETS	0.105226435	-0.870478392	0.000361831	0.009733266	30
VALK_AML_CLUSTER_10	0.107638561	-0.865840636	0.000387942	0.010349395	32
ROYLANCE_BREAST_CANCER_16Q_COPY_NUMBER_DN	0.14586936	-0.863052197	0.000400707	0.01060232	19
ASTON_MAJOR_DEPRESSIVE_DISORDER_DN	0.14961343	-0.834871585	0.000440254	0.011518661	129
LANDIS_ERBB2_BREAST_TUMORS_324_UP	0.102864353	-0.837306859	0.000442476	0.011518661	132
DARWICHE_SQUAMOUS_CELL_CARCINOMA_UP	0.11131061	-0.835362255	0.000449515	0.011538237	121
PID_MAPK_TRK_PATHWAY	0.162922249	-0.843438872	0.000453856	0.011538237	32
LIU_SOX4_TARGETS_DN	0.11112564	-0.831930763	0.000453952	0.011538237	295
NATSUME_RESPONSE_TO_INTERFERON_BETA_DN	0.109551932	-0.843080509	0.000463315	0.01168422	50
LENAOUR_DENDRITIC_CELL_MATURATION_DN	0.012872296	-0.851661139	0.000471789	0.011716956	124
KEGG_GNRH_SIGNALING_PATHWAY	0.152649187	-0.8315413	0.000472979	0.011716956	80
YAGI_AML_SURVIVAL	0.149569685	-0.82962025	0.000475671	0.011716956	122
MIKKELSEN_NPC_LCP_WITH_H3K4ME3	0.151579114	-0.834983338	0.000483218	0.011716956	42
HONMA_DOCETAXEL_RESISTANCE	0.119606331	-0.849121902	0.000487124	0.011716956	33
LIU_TARGETS_OF_VMYB_VS_CMVY_DN	0.105052384	-0.842295039	0.000488776	0.011716956	39
TERAO_A0X4_TARGETS_HG_UP	0.146603351	-0.842189157	0.000490021	0.011716956	28
LU_EZH2_TARGETS_UP	0.078938693	-0.82759196	0.000494257	0.011731346	259
KEGG_LEISHMANIA_INFECTON	0.042811597	-0.843287428	0.000498527	0.011746319	67
BENPORATH_MYC_TARGETS_WITH_EBOX	0.095454033	-0.825629641	0.000503796	0.011784453	216
REACTOME_TRAF6_MEDIATED_INDUCTION_OF_NFKB_AND_MAP_KINASES_UPON_TLR7_8_OR_9_ACTIVATION	0.117788428	-0.829217554	0.000517114	0.012008984	74
PID_MTOR_4PATHWAY	0.145340404	-0.827151003	0.000525500	0.012116568	69
MARTINEZ_RESPONSE_TO_TRABECTEDIN_UP	0.120170853	-0.823230694	0.000566984	0.012980318	66
BURTON_ADIPGENESIS_5	0.116732427	-0.818136588	0.000577232	0.013121872	119
REACTOME_MAPK_TARGETS_NUCLEAR_EVENTS_MEDIATED_BY_MAP_KINASES	0.176286114	-0.822323437	0.000594985	0.013403846	30
BERENJENO_ROCK_SIGNALING_NOT_VIA_RHOA_UP	0.16081542	-0.827539528	0.000621478	0.013931463	20
BIOCARTA_DEATH_PATHWAY	0.148630528	-0.821290054	0.000640193	0.01425203	33
RICKMAN_METASTASIS_UP	0.039692048	-0.808949713	0.000659839	0.014786979	233
KAMIKUBO_MYELOID_CEBPA_NETWORK	0.035923705	-0.869230748	0.000674889	0.014786979	28
YAGI_AML_WITH_INV_16_TRANSLOCATION	0.097588545	-0.803681322	0.000677966	0.014786979	360
REACTOME_NGF_SIGNALLING_VIA_TRKA_FROM_THE_PLASMA_MEMBRANE	0.139415919	-0.803217837	0.000696909	0.015098133	123
BHAT_ESR1_TARGETS_VIA_AKT1_UP	0.083319286	-0.801345424	0.000713922	0.015363609	237
CHENG_RESPONSE_TO_NICKEL_ACETATE	0.171096749	-0.804733346	0.000721168	0.015416762	43
REACTOME_G_ALPHA1213_SIGNALLING_EVENTS	0.16848135	-0.797900711	0.000761811	0.016718458	65
KIM_ALL_DISORDERS_DURATION_CORR_DN	0.082095853	-0.794945767	0.00083331	0.017581197	132
HOLLEMAN_ASPARAGINASE_RESISTANCE_B_ALL_UP	0.148485271	-0.805116050	0.000860893	0.01802237	26
BASSO_B_LYMPHOCYTE_NETWORK	0.10158512	-0.788958178	0.000869776	0.01802237	139
KEGG_ALZHEIMERS_DISEASE	0.131202815	-0.768655461	0.00087097	0.01802237	139
WONG_MITOCHONDRIA_GENE_MODULE	0.039228595	-0.790220663	0.000899858	0.018051054	212
PID_ERBB1_DOWNSTREAM_PATHWAY	0.148824259	-0.783890754	0.000914171	0.01859963	103
LEE_DIFFERENTIATING_T_LYMPHOCYTE	0.032353436	-0.789630173	0.000920311	0.01859963	185
REACTOME_P75_NTR_RECEPATOR_MEDIATED_SIGNALLING	0.180245080	-0.782821505	0.000921915	0.01859963	74
BIOCARTA_GCR_PATHWAY	0.156766267	-0.807091523	0.000941021	0.018280207	16
BAELDE_DIABETIC_NEPHROPATHY_UP	0.134968713	-0.784706098	0.000944509	0.018280207	71
BYSTROEM_CORRELATED_WITH_IL5_UP	0.14200671	-0.781968813	0.000979712	0.019401896	64
REACTOME_NUCLEAR_EVENTS_KINETICS_AND_TRANSCRIPTION_FACTOR_ACTIVATION	0.181877965	-0.788254583	0.000996355	0.019614721	24
TERAMOTO_OPN_TARGETS_CLUSTER_6	0.186520659	-0.782825651	0.001035701	0.020262078	24
GAZDA_DIAMOND_BLACKFAN_ANEMIA_PROGENITOR_UP	0.129692916	-0.778489335	0.001051979	0.024565459	60
PARK_HSC_AND_MULTIPOPENT_PROGENITORS	0.16239202	-0.777198048	0.001081275	0.020900033	47
YORDY_RECIPROCAL_REGULATION_BY_ES51_AND_SP100_UP	0.177888676	-0.779868473	0.001115612	0.021435682	23
JISON_SICKLE_CELL_DISEASE_UP	0.096128414	-0.767991624	0.00114586	0.021886604	177
PID_BCR_SPATHWAY	0.121248297	-0.771707173	0.001165928	0.022101289	65
MIYAGAWA_TARGETS_OF_ESWR1_ETS_FUSIONS_UP	0.109262040	-0.764100788	0.001170793	0.022101289	219
CHANDRAI_METASTASIS_TOP50_UP	0.190366718	-0.766635356	0.001199978	0.022520513	42
FLECHNER_PBL_KIDNEY_TRANSPLANT_OK_VS_DONOR_UP	0.098016683	-0.763232392	0.001226682	0.022888607	148
ELVIDGE_HYPOTIA_UP	0.13359637	-0.75991194	0.001253293	0.023250746	140
ROSS_AML_WITH_AML1ETO_FUSION	0.042275428	-0.785267701	0.001316876	0.02429072	75
REACTOME_PYRUVATE_METABOLISM_AND_CITRIC_ACID_TCA_CYCLE	0.166102496	-0.764870541	0.001331871	0.024427717	39
FERNANDEZ_BOUND_BY_MYC	0.120348789	-0.753847513	0.001342583	0.024485066	163
ZHANG_TLX_TARGETS_36HR_UP	0.061587041	-0.754329143	0.00138034	0.025032227	203
REACTOME_ERK_MAPK_TARGETS	0.190848464	-0.763905497	0.001390022	0.025066995	21
WAKABAYASHI_ADIPGENESIS_PPPRG_RXRA_BOUND_WITH_H4K20ME1_MARK	0.156433884	-0.750407591	0.001402933	0.025068039	134
REACTOME_METABOLISM_OF_NUCLEOTIDES	0.128768946	-0.755900630	0.001414324	0.025068039	64
FULCHEM_INFLAMMATORY_RESPONSELECTIN_VS_LPS_DN	0.008090712	-0.753960044	0.001416963	0.025068039	431
WANG_IMMORTALIZED_BY_HOXA9_AND_MEIS1_UP	0.173238642	-0.763713185	0.001421144	0.025068039	23
NIKOLSKY_BREAST_CANCER_20Q12_Q13_AMPLICON	0.141462826	-0.750142475	0.001431734	0.025117589	111
KEGG_ACUTE_MYELOID_LEUKEMIA	0.168273271	-0.751086558	0.001452601	0.025342787	56
NING_CHRONIC_OBSTRUCTIVE_PULMONARY_DISEASE_UP	0.127465509	-0.749590159	0.001462131	0.025432787	113
KEGG_NEUROTROPIN_SIGNALING_PATHWAY	0.125992192	-0.748865356	0.001468123	0.025424278	115
LUI_TARGETS_OF_PAX8_PPARG_FUSION	0.145051806	-0.760526289	0.001504777	0.025837343	34
ZUCHHI_METASTASIS_UP	0.107939028	-0.761595566	0.001523203	0.025872018	37
KEGG_TOLL_LIKE_RECEPATOR_SIGNALING_PATHWAY	0.084169947	-0.750155146	0.001528051	0.025872018	87
BURTON_ADIPGENESIS_6	0.094539806	-0.744643222	0.001530841	0.025872018	171
DELACROIX_RARG_BOUND_MEF	0.099145938	-0.742415451	0.001540315	0.025896552	321
PID_P38_ALPHA_BETA_DOWNSTREAM_PATHWAY	0.180120598	-0.748348075	0.001571275	0.026280193	36
FLECHNER_BIOPSY_KIDNEY_TRANSPLANT_REJECTED_VS_OK_UP	0.19611559	-0.76152557	0.001650746	0.027415534	85
ASTIER_INTEGRIN_SIGNALING	0.18376891	-0.740794816	0.001662204	0.027415534	49
BOYLAN_MULTIPLE_MYELOMA_D_UP	0.1166757	-0.742663064	0.001664636	0.027415534	75
REACTOME_GLYCOSPHINGOLIPID_METABOLISM	0.161377961	-0.742924304	0.001694095	0.027676651	43
SCHIEDERET_IKK_INTERACTING_PROTEINS	0.16966269	-0.746542949	0.001697638	0.027676651	29
REACTOME_ACTIVATION_OF_THE_MRNA_UPON_BINDING_OF_THE_CAP_BINDING_COMPLEX_AND_EIFS_AND_SUBSEQUENT_BINDING_TO_43S	0.177700743	-0.737643045	0.001737376	0.028121556	55
REACTOME_NUCLEOTIDE_BINDING_DOMAIN_LEUCINE_RICH_REPEAT_CONTAINING_RECEPATOR_NLR_SIGNALING_PATHWAYS	0.079796873	-0.752678605	0.00177599	0.028664472	58
MORI_PRE_BL_LYMPHOCYTE_UP	0.130470952	-0.741304804	0.001786295	0.028664472	45
PID_PDGFRB_PATHWAY	0.067564387	-0.737762604	0.001863129	0.029773173	76
BIOCARTA_TOLL_PATHWAY	0.124807656	-0.729334232	0.001881506	0.029918723	128
LANG_MYB_FAMILY_TARGETS	0.143235736	-0.736330893	0.001946252	0.030796583	37
BOQUEST_STEM_CELL_CULTURED_VS_FRESH_UP	0.200805322	-0.731200337	0.001991577	0.031360049	29
MORI_LARGE_PRE_BI_LYMPHOCYTE_UP	0.149916207	-0.750990624	0.00202866	0.031643049	17
LANDIS_BREAST_CANCER_PROGRESSION_UP	0.059795591	-0.735892943	0.002029155	0.031643049	57
VALK_AML_CLUSTER_9	0.130839129	-0.727918315	0.002063315	0.032021064	63
JIANGAGING_HYPOTHALAMUS_UP	0.106146025	-0.747244924	0.002102158	0.032467773	35
KEGG_FC_EPSILON_RI_SIGNALING_PATHWAY	0.169901566	-0.725421317	0.002114367	0.032500842	45
WATANABE_RECTAL_CANCER_RADIOTHERAPY_RESPONSE_UP	0.170756678	-0.717443855	0.002209042	0.033795208	66
WIELAND_UP_BY_HBV_INFECTION	0.185005189	-0.712104837	0.002296724	0.034970878	101
KEGG_PARKINSONS_DISEASE	0.051457691	-0.730229003	0.002387201	0.036177867	98
WANG_TARGETS_OF_MLL_CBP_FUSION_UP	0.105653819	-0.711580811	0.002437083	0.036761213	102
ZHAN_VARIABLE_EARLY_DIFFERENTIATION_GENES_UP	0.182016679	-0.711298838	0.002477988	0.037204041	44
NING_CHRONIC_OBSTRUCTIVE_PULMONARY_DISEASE_UP	0.180327269	-0.717828238	0.002517542	0.037623236	30
MCBRYAN_PUBERTAL_BREAST_6_7WK_UP	0.14016606	-0.703028292	0.002576926	0.038210692	175
KEGG_ASTHMA	0.075335635	-0.735839694	0.00259518	0.038252247	23
DELASERNA_MYOD_TARGETS_UP	0.170213874	-0.706061497	0.002609459	0.038287886	52
KEGG_VIBRIO_CHOLERAE_INFECTION	0.173959485	-0.703233095	0.002721656	0.039753423	46
MURAKAMI_UV_RESPONSE_6HR_UP	0.199834446	-0.696982618	0.002941925	0.042738582	34
HAHTOLA_MYCOSIS_FUNGOIDES_CD4_UP	0.140947975	-0.694079091	0.00295251	0.042738582	115
SCHLOSSER_SERUM_RESPONSE_AUGMENTED_BY_MYC	0.151147892	-0.690902445	0.003101107	0.044388111	99
VERRECCHIA_EARLY_RESPONSE_TO_TGFB1	0.124681492	-0.696582727	0.003107268	0.044388111	57
MENSSEN_MYC_TARGETS	0.105897991	-0.69736587	0.003115909	0.044388111	53
REACTOME_METABOLISM_OF_AMINO_ACIDS_AND_DERIVATIVES	0.124415968	-0.686986451	0.0031379	0.044388111	156
WANG_CLIM2_TARGETS_UP	0.128930642	-0.686683723	0.003143945	0.044388111	174
LUI_THYROID_CANCER_PAX8_PPARG_UP	0.143464319	-0.687972763	0.003148971	0.044388111	43
CHIARADONNA_NEOPLASTIC_TRANSFORMATION_CDC25_UP	0.128468501	-0.682784197	0.003322107	0.046765542	146

NUP98-KDMSA downregulated	p.geomean	stat.mean	p.val	q.val	set.size
SANSOM_APC_TARGETS_DN	0.047972272	-0.680607761	0.003413883	0.047567028	305
PID_CASPASE_PATHWAY	0.196455602	-0.682337376	0.003418696	0.047567028	51
REACTOME_FORMATION_OF_THE_TERNARY_COMPLEX_AND_SUBSEQUENTLY_THE_43S_COMPLEX	0.092126415	-0.6994040864	0.003463465	0.047983116	50
ABBDL_LIF_SIGNALING_1_UP	0.116815138	-0.691584263	0.003515086	0.048490166	39
HOFFMANN_PRE_BI_TO_LARGE_PRE_BII LYMPHOCYTE_DN	0.185015664	-0.678080748	0.003540879	0.048638123	70
BIOCARTA_MITOCHONDRIA_PATHWAY	0.214973756	-0.684485195	0.003615211	0.049448733	21
PID_AVB3_OPN_PATHWAY	0.188943419	-0.681359801	0.003643425	0.049624367	31
WANG_TUMOR_INVASIVENESS_UP	0.051356146	-0.673917279	0.003659073	0.049628093	358
KEGG_PENTOSE_PHOSPHATE_PATHWAY	0.1776127	-0.686188997	0.003712878	0.050056412	23
KEGG_GALACTOSE_METABOLISM	0.196944469	-0.683661214	0.003721666	0.050056412	22
JIANG_AGING_CEREBRAL_Cortex_DN	0.177069924	-0.677022798	0.003741072	0.050080632	50
KEGG_APOTOPSIS	0.167090226	-0.673588021	0.003754496	0.050080632	81
PENG_RAPAMYCIN_RESPONSE_DN	0.048221335	-0.673950177	0.003799724	0.050475349	240
CROMER_METASTASIS_DN	0.179003366	-0.67110245	0.003844641	0.050705985	70
ZWANG_EGF_PERSISTENTLY_DN	0.204550194	-0.671580514	0.003848503	0.050705985	51
REACTOME_NOD1_2_SIGNALING_PATHWAY	0.173668306	-0.680474458	0.003918458	0.051417818	30
KEGG_HISTIDINE_METABOLISM	0.193650476	-0.675820732	0.003976803	0.051896297	25
SHETH_LIVER_CANCER_VS_TKNP1 LOSS_PAM1	0.132503383	-0.666131234	0.003990755	0.051896297	198
PID_CXCR4_PATHWAY	0.14359333	-0.667955742	0.004015882	0.051896297	99
SASSON_RESPONSE_TO_GONADOTROPHINS_UP	0.145063451	-0.669281339	0.00401923	0.051896297	82
TAKAO_RESPONSE_TO_UVB_RADIATION_UP	0.114840952	-0.668400108	0.004209741	0.0514319615	82
DARWICHE_PAPILLOMA_RISK_LOW_UP	0.147909854	-0.660777228	0.00428031	0.054828737	132
WALLACE_JAK2_TARGETS_UP	0.212310994	-0.666772046	0.004381847	0.055725541	24
REACTOME_DEGRADATION_OF_THE_EXTRACELLULAR_MATRIX	0.172325489	-0.680603064	0.004384847	0.055725541	18
BILANES_RAPAMYCIN_SENSITIVE_VIA_TSC1_AND_TSC2	0.132383569	-0.658952898	0.004669252	0.059107231	71
Q1_PLASMACYTOMA_UP	0.02861908	-0.655630172	0.004722324	0.059545552	248
KEGG_HUNTINGTONS_DISEASE	0.103419536	-0.652772124	0.004799105	0.060097132	156
KOHOUTEK_CCNT2_TARGETS	0.214627054	-0.653947911	0.004803302	0.060097132	39
LANDIS_ERBB2_BREAST_PRENEOPLASTIC_DN	0.19115335	-0.653303161	0.004830103	0.060199124	51
GAUSSMANN_MLL_AF4_FUSION_TARGETS_E_UP	0.188899867	-0.649779828	0.004980744	0.060976576	66
BIOCARTA_FMPL_PATHWAY	0.185845999	-0.65564744	0.004984509	0.060976576	33
ZHONG_SECRETOME_OF_LUNG_CANCER_AND_MACROPHAGE	0.146426344	-0.651256751	0.004989411	0.060976576	72
BIOCARTA_CERAMIDE_PATHWAY	0.206895205	-0.661372342	0.004991961	0.060976576	22
BEIER_GLIOMA_STEM_CELL_DN	0.119094718	-0.6526414	0.005002913	0.060976576	63
KAAB_FAILED_HEART_VENTRICLE_DN	0.171424304	-0.655139109	0.005016791	0.060976576	36
DURCHDEWALD_SKIN_CARCINOGENESIS_DN	0.124481125	-0.645811912	0.005043628	0.060976576	239
LUI_THYROID_CANCER_CLUSTER_3	0.169327971	-0.664490145	0.005058398	0.060976576	28
KEGG_CITRATE_CYCLE_TCA_CYCLE	0.180918493	-0.661255044	0.005062491	0.060976576	28
BARRIER_CANCER_RELAPSE_NORMAL_SAMPLE_DN	0.201123283	-0.653517639	0.005095243	0.061142916	31
REACTOME_PROCESSING_OF_CAPPED_INTRON_CONTAINING_PRE_MRNA	0.081491122	-0.650907549	0.005136692	0.06141201	152
BILANES_SERUM_SENSITIVE_GENES	0.217113669	-0.64335495	0.005210264	0.062061745	77
PID_VEGFR1_2_PATHWAY	0.174448056	-0.644779192	0.005327988	0.063320682	67
BIOCARTA_AT1R_PATHWAY	0.2142066919	-0.644137802	0.005544747	0.065620529	31
REACTOME_RECYCLING_PATHWAY_OF_L1	0.210819559	-0.646642779	0.005622231	0.065969457	24
SHIPP_DLBCL_VS_FOLLICULAR_LYMPHOMA_UP	0.115498517	-0.6497988	0.005637759	0.065969457	44
REACTOME_PROCESSING_OF_CAPPED_INTRON_CONTAINING_PRE_MRNA	0.079683235	-0.64414594	0.005652176	0.065969457	134
RICKMAN_TUMOR_DIFFERENTIATED_MODERATELY_VS_Poorly_UP	0.196219201	-0.65391986	0.005660948	0.065969457	109
ST_ERK1_ERK2_MAPK_PATHWAY	0.198537998	-0.644510137	0.005717741	0.066391612	30
NADLER_OBESITY_DN	0.189744247	-0.637970803	0.005875271	0.067830499	40
JIANG_VHL_TARGETS	0.160441263	-0.633273279	0.005883686	0.067830499	133
SAKAI_CHRONIC_HEPATITIS_VS_LIVER_CANCER_UP	0.137074197	-0.634294079	0.006023711	0.069197653	82
REACTOME_LIPOPROTEIN_METABOLISM	0.218912442	-0.639015194	0.00607781	0.06957153	21
TAKEDA_TARGETS_OF_NUP98_HOXA9_FUSION_6HR_DN	0.108964738	-0.647655413	0.006124968	0.069863593	37
ELVIDGE_HIF1A_AND_HIF2A_TARGETS_UP	0.202853511	-0.634176874	0.006153536	0.069942307	39
WANG_CLASSIC_ADIPOPENIC_TARGETS_OF_PPARG	0.185886244	-0.640331232	0.006239659	0.07064792	23
RUTELLA_RESPONSE_TO_HGF_VS_CSF2RB_AND_I14_DN	0.100515767	-0.627720118	0.006259388	0.07064792	235
BIOCARTA_CRC3_PATHWAY	0.230370837	-0.637145508	0.006289479	0.070742028	18
KUROKAWA_LIVER_CANCER_CHEMOTHERAPY_DN	0.228275728	-0.628522145	0.006369353	0.07095433	37
REACTOME_NRAGE_SIGNALS_DEATH_THROUGH_JNK	0.219438728	-0.628223288	0.006393069	0.07095433	41
KEGG_FATTY_ACID_METABOLISM	0.194152486	-0.632852274	0.006395452	0.07095433	33
SCHLESINGER_METHYLATED_DE_NOVO_IN_CANCER	0.184020584	-0.62907255	0.006396441	0.07095433	59
BIOCARTA_RAS_PATHWAY	0.201734182	-0.638137254	0.006505298	0.071914727	23
NABA_ECM_REGULATORS	0.111794939	-0.62286095	0.006738848	0.073891117	138
REACTOME_MRNA_SPLICING	0.099224075	-0.62915945	0.00674531	0.073891117	105
BIOCARTA_MYOSIN_PATHWAY	0.233362788	-0.625728789	0.006753271	0.073891117	26
LI_AMPLIFIED_IN_LUNG_CANCER	0.098998991	-0.620684927	0.006850352	0.074075866	157
YAGI_AML_WITH_T_9_11_TRANSLOCATION	0.122394786	-0.621240921	0.006909193	0.075093851	121
BIOCARTA_TNFR1_PATHWAY	0.226459837	-0.624860933	0.00693814	0.075155419	29
BIOCARTA_HDAC_PATHWAY	0.242119103	-0.622559288	0.006970827	0.075253286	26
REACTOME_IL_3_AND_GM_CSF_SIGNALING	0.218045346	-0.620619491	0.0069938	0.075253286	56
BURTON_ADIPOPENESIS_4	0.099224075	-0.62915945	0.00674531	0.073891117	105
SIG_CHEMOTAXIS	0.233362788	-0.625728789	0.006753271	0.073891117	26
BILBAN_B_CLL_LPL_DN	0.098998991	-0.620684927	0.006850352	0.074075866	157
ACEVEDO_LIVER_TUMOR_VS_NORMAL_ADJACENT_TISSUE_DN	0.122394786	-0.621240921	0.006909193	0.075093851	121
PAPASPYRIDONOS_UNSTABLE_ATEROSCLEROTIC_PLAQUE_UP	0.226459837	-0.624860933	0.00693814	0.075155419	29
PID_TRKR_PATHWAY	0.242119103	-0.622559288	0.006970827	0.075253286	50
WANG_LMO4_TARGETS_UP	0.228544198	-0.610048308	0.007678534	0.0801001005	56
HEIDENBLAD_AMPLICON_8Q24_DN	0.156040606	-0.607149864	0.007705114	0.081016633	335
TSENG_IRS1_TARGETS_DN	0.228398171	-0.610279482	0.007806628	0.081264574	42
TSENG_IRS1_TARGETS_DN	0.168267295	-0.608650217	0.007808814	0.081264574	109
KEGG_PROPANOATE_METABOLISM	0.181321316	-0.61772345	0.007819216	0.081264574	29
REACTOME_GLUCONEOGENESIS	0.206013652	-0.617565831	0.007842613	0.081264574	26
MARSON_FOXP3_TARGETS_UP	0.151790944	-0.610748444	0.007854568	0.081264574	65
ENK_UV_RESPONSE_EPIDERMIS_UP	0.107724457	-0.601517256	0.008310382	0.08516876	259
PID_TXA2PATHWAY	0.174088313	-0.605939361	0.008318556	0.08516876	54
KONDO_COLON_CANCER_HCP_WITH_H3K27ME1	0.219167824	-0.610873609	0.008395898	0.08603796	18
REACTOME_CITRIC_ACID_CYCLE_TCA_CYCLE	0.124609476	-0.624808178	0.007134343	0.07600548	42
HOWLIN_PUBERTAL_MAMMARY_GLAND	0.134045735	-0.613414613	0.007442939	0.079032261	223
WANG_IMMORTALIZED_BY_HOXA9_AND_MEIS1_UP	0.126900203	-0.620120789	0.007593242	0.080363891	50
TIEN_INTESTINE_PROBIOTICS_2HR_UP	0.1228544198	-0.610048308	0.007678534	0.081001005	56
RODWELL_AGING_KIDNEY_NO_BLOOD_UP	0.150624357	-0.613168373	0.008657523	0.087882028	27
GRAESSMANN_APOPTOSIS_BY_SERUM_DEPRIVATION_DN	0.203931073	-0.607295657	0.008719165	0.088230301	25
KHETCHOUUMANI_TRIM24_TARGETS_UP	0.102913778	-0.597796265	0.008898531	0.089763932	180
ZHANG_BREAST_CANCER_PROGENITORS_DN	0.188300562	-0.593203467	0.008986597	0.090470455	200
PID_FCR1_PATHWAY	0.118869556	-0.609323093	0.009032519	0.090549598	45
NIKOLSKY_BREAST_CANCER_11Q12_Q14_AMPLICON	0.203401898	-0.591242856	0.009244291	0.092385674	128
REACTOME_EXTRACELLULAR_MATRIX_ORGANIZATION	0.191451917	-0.59310962	0.009379014	0.093442773	61
MATZUK_SPERMATOGENESIS	0.21408712	-0.588836142	0.00949702	0.094299999	123
NIKOLSKY_BREAST_CANCER_20Q11_AMPLICON	0.139007779	-0.596250653	0.009523482	0.094299999	68
REACTOME_CELL_CELL_COMMUNICATION	0.123375114	-0.597769556	0.009679663	0.095333572	17
REACTOME_RIG_I_MDA5_MEDIATED_INDUCTION_OF_IFN_ALPHA_BETA_PATHWAYS	0.229783384	-0.594738029	0.00968693	0.095333572	27
DAZARD_RESPONSE_TO_UV_NHEK_UP	0.194292087	-0.5875522	0.00978849	0.095909683	90
DELACROIX_RAR_TARGETS_UP	0.166200738	-0.5918198	0.009806509	0.095909683	58
WAKABAYASHI_ADIPOPENESIS_PPARG_RXRA_BOUND_36HR	0.053796523	-0.590551343	0.009834605	0.095909683	207
MALONEY_RESPONSE_TO_17AAg_UP	0.176348089	-0.592305013	0.009936738	0.096613828	39
PID_RAC1_REG_PATHWAY	0.216647256	-0.582538937	0.010171798	0.098359264	35
PID_RAC1_REG_PATHWAY	0.234350619	-0.584715432	0.010287252	0.09912612	38

Supplemental table 8. GSEA of upregulated genes in NUP98-NSD1

NUP98-NSD1 upregulated	p.geomean	stat.mean	p.val	q.val	set.size
VALK_AML_WITH_FLT3_ITD	0.004588	2.181778	8.58E-46	2.77E-42	39
MULLIGHAN_NPM1_SIGNATURE_3_UP	0.005236	1.848838	1.33E-36	2.15E-33	296
KAUFFMANN_DNA_REPAIR_GENES	0.004533	1.845036	3.94E-36	4.24E-33	227
WANG_RESPONSE_TO_GSK3_INHIBITOR_SB216763_UP	0.003869	1.75086	4.89E-33	3.94E-30	352
MULLIGHAN_NPM1_MUTATED_SIGNATURE_1_UP	0.010154	1.638166	4.13E-29	2.66E-26	235
DUNNE_TARGETS_OF_AML1_MTG8_FUSION_UP	0.012346	1.609396	1.25E-26	6.70E-24	50
VALK_AML_CLUSTER_2	0.033185	1.462853	4.75E-22	2.19E-19	29
REACTOME_DNA_REPAIR	0.028688	1.377198	8.68E-21	3.50E-18	104
KEGG_PYRIMIDINE_METABOLISM	0.038637	1.371016	1.02E-20	3.66E-18	91
WHITFIELD_CELL_CYCLE_S	0.029424	1.342912	3.65E-20	1.18E-17	153
KEGG_HOMOLOGOUS_RECOMBINATION	0.052476	1.351605	3.87E-19	1.14E-16	28
GINESTIER_BREAST_CANCER_ZNF217_AMPLIFIED_DN	0.013701	1.287519	1.08E-18	2.92E-16	310
WANG_RESPONSE_TO_GSK3_INHIBITOR_SB216763_DN	0.007783	1.249712	9.79E-18	2.43E-15	357
TOYOTA_TARGETS_OF_MIR34B_AND_MIR34C	0.014753	1.203331	1.16E-16	2.68E-14	428
MULLIGHAN_NPM1_MUTATED_SIGNATURE_2_UP	0.045193	1.201336	1.71E-16	3.46E-14	123
SANSOM_APC_TARGETS_REQUIRE_MYC	0.043962	1.197603	1.71E-16	3.46E-14	193
KAUFFMANN_MELANOMA_RELAPSE_UP	0.025487	1.192568	1.89E-15	3.59E-13	61
WAKASUGI_HAVE_ZNF143_BINDING_SITES	0.058271	1.161685	3.83E-15	6.87E-13	58
KEGG_PURINE_METABOLISM	0.072536	1.139863	4.05E-15	6.88E-13	133
FUJII_YBX1_TARGETS_DN	0.011729	1.146172	4.82E-14	7.79E-13	193
PUJANA_XPRSS_INT_NETWORK	0.011974	1.138817	1.01E-14	1.55E-12	168
THEILGAARD_NEUTROPHIL_AT_SKIN_WOUND_DN	0.039358	1.115156	1.71E-14	2.51E-12	221
REACTOME_METABOLISM_OF_NUCLEOTIDES	0.07579	1.117227	2.19E-14	3.08E-12	64
KEGG_DNA_REPLICATION	0.051566	1.149369	3.09E-14	4.16E-12	36
ZHANG_TLX_TARGETS_DN	0.013723	1.125257	8.68E-14	1.10E-11	88
VALK_AML_CLUSTER_15	0.006281	1.128368	8.87E-14	1.10E-11	31
GARY_CDS_TARGETS_DN	0.012142	1.081481	9.49E-14	1.13E-11	421
MUELLER_PLURINET	0.017217	1.080558	1.04E-13	1.20E-11	285
VALK_AML_WITH_CEBPA	0.091855	1.089772	1.33E-13	1.48E-11	36
VECHCI_GASTRIC_CANCER_EARLY_UP	0.014862	1.072005	1.44E-13	1.54E-11	382
ZHOI_INFLAMMATORY_RESPONSE_FIMA_DN	0.074449	1.061403	2.09E-13	2.17E-11	234
WELCSH_BRCA1_TARGETS_DN	0.0579	1.057103	3.70E-13	3.73E-11	136
REACTOME_DNA_REPLICATION	0.012654	1.059986	4.70E-13	4.60E-11	187
PUJANA_BRCA_CENTERED_NETWORK	0.020862	1.06534	5.26E-13	4.99E-11	117
REACTOME_TRNA_AMINOACYLATION	0.080986	1.067834	5.80E-13	5.35E-11	41
NIKOLSKY_BREAST_CANCER_17Q21_Q25_AMPLICON	0.083476	1.038016	6.36E-13	5.70E-11	280
REACTOME_DNA_STRAND_ELONGATION	0.044801	1.098299	1.33E-12	1.16E-10	30
IVANOVA_HEMATOPOEISIS_INTERMEDIATE_PROGENITOR	0.062115	1.025432	1.61E-12	1.37E-10	139
EPPERT_CE_HSC_LSC	0.070184	1.040605	2.16E-12	1.79E-10	40
CHUNG_BLISTER_CYTOTOXICITY_DN	0.093424	1.0271	2.68E-12	2.16E-10	43
GINESTIER_BREAST_CANCER_20Q13_AMPLIFICATION_DN	0.056853	1.014885	2.84E-12	2.23E-10	166
REACTOME_ACTIVATION_OF_THE_PRE_REPLICATIVE_COMPLEX	0.059234	1.062766	3.28E-12	2.52E-10	30
WIERENGA_STATS TARGETS_DN	0.026215	1.008387	3.84E-12	2.88E-10	204
PYEON_CANCER_HEAD_AND_NECK_VS_CERVICAL_UP	0.04786	0.984247	1.09E-11	8.00E-09	179
MOOTHA_MITOCHONDRIA	0.010103	0.97386	1.76E-11	1.27E-09	416
REACTOME_GLOBAL_GENOMIC_NER_GG_NER	0.100153	0.987471	2.64E-11	1.85E-09	33
MOOTHA_HUMAN_MITOLOB_6_2002	0.011132	0.964346	2.77E-11	1.90E-09	401
MOREAUX_MULTIPLE_MYELOMA_BY_TACI_DN	0.040929	0.967792	3.03E-11	2.04E-09	166
KAUFFMANN_DNA_REPLICATION_GENES	0.06746	0.961419	3.18E-11	2.10E-09	142
REACTOME_E2F_MEDIATED_REGULATION_OF_DNA_REPLICATION	0.067297	0.987014	4.32E-11	2.79E-09	34
KAMIKUBO_MYELOID_CEBPA_NETWORK	0.039396	1.005301	5.46E-11	3.46E-09	28
KEGG_NUCLEOTIDE_EXCISION_REPAIR	0.098558	0.962922	5.98E-11	3.71E-09	44
PID_FANCONI_PATHWAY	0.097047	0.955056	7.39E-11	4.50E-09	47
REACTOME_EXTENSION_OF_TELOMERES	0.076527	0.985294	9.07E-11	5.37E-09	27
REACTOME_TRANSSCRIPTION_COUPLED_NER_TC_NER	0.099868	0.954274	9.15E-11	5.37E-09	44
LIU_SOXA4_TARGETS_DN	0.100399	0.923842	1.35E-10	7.81E-09	295
MITSIADES_RESPONSE_TO_APOLIDIN_DN	0.022071	0.927014	1.61E-10	9.13E-09	243
REACTOME_MITOTIC_G2_G2_M_PHASES	0.10697	0.924201	1.82E-10	1.01E-08	78
GALE_APL_WITH_FLT3_MUTATED_UP	0.112454	0.926252	2.02E-10	1.09E-08	56
REACTOME_G1_S_TRANSITION	0.039235	0.931267	2.05E-10	1.09E-08	107
MEISSNER_NPC_HCP_WITH_H3K27ME3	0.107191	0.941692	2.09E-10	1.09E-08	29
KEGG_VALINE_LEUCINE_AND_SOLEUCINE_DEGRADATION	0.093755	0.932358	2.09E-10	1.09E-08	43
WHITFIELD_CELL_CYCLE_G1_S	0.082831	0.91599	2.30E-10	1.18E-08	137
HESS_TARGETS_OF_HOXA9_AND_MEIS1_UP	0.10491	0.920579	2.39E-10	1.21E-08	60
SCHUHMACHER_MYC_TARGETS_UP	0.040668	0.920301	4.00E-10	1.99E-08	78
REACTOME_NUCLEOTIDE_EXCISION_REPAIR	0.106405	0.910161	5.28E-10	2.58E-08	49
REACTOME_ACTIVATION_OF_ATR_IN_RESPONSE_TO_REPLICATION_STRESS	0.075553	0.927223	6.50E-10	3.13E-08	35
HOEBEKE LYMPHOID_STEM_CELL_UP	0.081622	0.894602	6.60E-10	3.13E-08	93
REACTOME_G2_M_CHECKPOINTS	0.061861	0.923358	7.25E-10	3.36E-08	41
KEGG_AMINOACYL_TRNA BIOSYNTHESIS	0.110606	0.904905	7.29E-10	3.36E-08	40
DAVIES_MULTIPLE_MYELOMA_VS_MIGUS_DN	0.090678	0.902935	1.13E-09	5.14E-08	28
REACTOME_MITOCHONDRIAL_TRNA_AMINOACYLATION	0.132679	0.904925	1.30E-09	5.84E-08	20
REACTOME_RNA_POL_I_TRANSCRIPTION_INITIATION	0.142596	0.883549	2.07E-09	9.17E-08	24
PYEON HPV_POSITIVE_TUMORS_UP	0.080595	0.866249	2.20E-09	9.59E-08	89
REACTOME_S_PHASE	0.04838	0.868096	2.62E-09	1.13E-07	106
PEART_HDAC_PROLIFERATION_CLUSTER_DN	0.107562	0.855775	3.44E-09	1.46E-07	75
REACTOME_SYNTHESIS_OF_DNA	0.054616	0.858874	4.13E-09	1.73E-07	90
ROSS_AML_WITH_PML_RARA_FUSION	0.115346	0.840609	5.96E-09	2.46E-07	75
JAIN_NFKB_SIGNALING	0.130974	0.838741	6.27E-09	2.56E-07	75
KEGG_MISMATCH_REPAIR	0.123665	0.868794	6.50E-09	2.62E-07	23
ZHONG_RESPONSE_TO_AZACITIDINE_AND_TSA_DN	0.115995	0.839698	7.11E-09	2.83E-07	66
GRADE_COLON_AND_RECTAL_CANCER_UP	0.041903	0.825167	9.66E-09	3.80E-08	273
BIDUS_METASTASIS_DN	0.12926	0.821599	1.03E-08	4.00E-07	145
WONG_MITOCHONDRIA_GENE_MODULE	0.017295	0.827427	1.14E-08	4.38E-07	212
TONKS_TARGETS_OF_RUNX1_RUNX1T1_FUSION_HSC_DN	0.032254	0.823807	1.24E-08	4.69E-07	184
REACTOME_MITOTIC_M_M_G1_PHASES	0.026339	0.824553	1.39E-08	5.22E-07	167
BURTON_ADIPPOGENESIS_3	0.019536	0.831307	1.66E-08	6.17E-07	99
REACTOME_MITOTIC_G1_G1_S_PHASES	0.050523	0.808801	2.33E-08	8.55E-07	132
GRAHAM_CML QUIESCENT_VS_NORMAL QUIESCENT_DN	0.094565	0.801095	4.51E-08	1.64E-06	44
GOLUB_ALL_VS_AML_DN	0.108616	0.808097	5.06E-08	1.81E-06	24
GAZDA_DIAMOND_BLACKFAN_ANEMIA_ERYTHROID_DN	0.1417	0.773466	5.95E-08	2.11E-06	458
REACTOME_DOUBLE_STRAND_BREAK_REPAIR	0.153879	0.794165	7.35E-08	2.58E-06	22
YOSHIOKA_LIVER_CANCER_EARLY_RECURRENCE_DN	0.187505	0.770876	8.23E-08	2.86E-06	45
PARK_TRETINOIN_RESPONSE_AND_PML_RARA_FUSION	0.117353	0.780528	1.03E-07	3.53E-06	30
YAGI_AML_SURVIVAL	0.166102	0.75454	1.30E-07	4.40E-06	122
ISHIDA_E2F_TARGETS	0.029264	0.797193	1.34E-07	4.51E-06	51
CREIGHTON_ENDOCRINE_THERAPY_RESISTANCE_2	0.091651	0.751773	1.38E-07	4.60E-06	364
SANSOM_APC_MYC_TARGETS	0.15825	0.749794	1.48E-07	4.84E-06	205
LIU_CD2_X_TARGETS_UP	0.148921	0.776509	1.48E-07	4.84E-06	21
VERNELI_RETINOBLASTOMA_PATHWAY_UP	0.075552	0.762536	1.54E-07	4.96E-06	68
ZHOU_CELL_CYCLE_GENES_IN_IR_RESPONSE_GHR	0.023418	0.774317	1.61E-07	5.14E-06	81
FRASOR_RESPONSE_TO_SERM_OR_FULVESTRANT_DN	0.080333	0.765484	1.74E-07	5.52E-06	49
EPPERT_LSC_R	0.117729	0.760461	1.81E-07	5.62E-06	41
PID_ATM_PATHWAY	0.16954	0.757303	1.81E-07	5.62E-06	34
BROWN_MYELOID_CELL_DEVELOPMENT_UP	0.01081	0.755064	2.06E-07	6.33E-06	146
BURTON_ADIPPOGENESIS_PEAK_AT_16HR	0.103558	0.757962	2.38E-07	7.25E-06	39
CASORELLI_ACUTE_PROMYELOCYTIC_LEUKEMIA_UP	0.079255	0.738081	2.58E-07	7.78E-06	167
REACTOME_PYRIMIDINE_METABOLISM	0.190075	0.746759	2.63E-07	7.88E-06	21
WANG_LMO4_TARGETS_UP	0.122344	0.730968	2.90E-07	8.59E-06	335
BIOCARTA_ATRBRCA_PATHWAY	0.168743	0.749656	3.45E-07	1.01E-05	21
VANDEVELEN_MYOGENESIS_SIN3A_TARGETS	0.132229	0.726748	3.48E-07	1.01E-05	208
LENAOUR_DENDRITIC_CELL_MATURATION_DN	0.026515	0.729191	4.61E-07	1.33E-05	124

NUP98-NSD1 upregulated	p.geomeai	stat.mean	p_val	q_val	set.size
PID_ATR_PATHWAY	0.1387	0.731829	4.77E-07	1.36E-05	39
WANG_CLASSIC_ADIPONENIC_TARGETS_OF_PPARG	0.174083	0.731561	4.85E-07	1.37E-05	23
WENG_POR_TARGETS_GLOBAL_DN	0.188163	0.728519	5.23E-07	1.46E-05	20
ZWANG_DOWN_BY_2ND_EGF_PULSE	0.136425	0.714399	5.26E-07	1.46E-05	227
BILD_MYC_ONCOGENIC_SIGNATURE	0.125277	0.714224	5.44E-07	1.50E-05	189
ROSS_AML_WITH_MLL_FUSIONS	0.023678	0.721393	5.61E-07	1.54E-05	77
KEGG_PROGESTERONE_MEDIANED_OOCYTE_MATURATION	0.189182	0.713272	5.81E-07	1.58E-05	76
REACTOME_DEFENSINS	0.104586	0.802837	6.06E-07	1.63E-05	10
KEGG_BASE_EXCISION_REPAIR	0.160987	0.721197	6.70E-07	1.79E-05	33
NIKOLSKY_BREAST_CANCER_8Q23_Q24_AMPLICON	0.125635	0.709295	6.75E-07	1.79E-05	130
REACTOME_RNA_POL_I_TRANSCRIPTION_TERMINATION	0.185843	0.717442	8.56E-07	2.25E-05	21
MISSAGLIA_REGULATED_BY METHYLATION_DN	0.040275	0.710483	8.76E-07	2.28E-05	114
TAKEDA_TARGETS_OF_NUP98_HOXA9_FUSION_6HR_UP	0.108616	0.707387	9.17E-07	2.37E-05	77
PUJANA_BREAST_CANCER_WITH_BRCA1_MUTATED_UP	0.089888	0.712035	1.01E-06	2.59E-05	56
TENEDINI_MEGAKARYOCYTE_MARKERS	0.110009	0.701741	1.09E-06	2.75E-05	66
MENSENN_MYC_TARGETS	0.080573	0.710145	1.09E-06	2.75E-05	53
NOUZOVA_TRETINOIN_AND_H4_ACETYLATION	0.15108	0.694041	1.13E-06	2.82E-05	136
REACTOME_FORMATION_OF_INCISION_COMPLEX_IN_GG_NER	0.18971	0.709229	1.15E-06	2.86E-05	21
ROSS_LEUKEMIA_WITH_MLL_FUSIONS	0.069163	0.697964	1.17E-06	2.88E-05	76
BYSTROM_CORRELATED_WITH_IL5_DN	0.175723	0.691981	1.33E-06	3.26E-05	64
FERRANDO_T_ALL_WITH_MLL_ENL_FUSION_DN	0.102351	0.693559	1.37E-06	3.34E-05	83
LAIHO_COLORECTAL_CANCER_SERRATED_DN	0.17824	0.688297	1.39E-06	3.36E-05	79
REACTOME_AMINE_LIGAND_BINDING_RECEPTEORS	0.189966	0.719575	1.49E-06	3.56E-05	11
ZHAN_MULTIPLE_MYELOMA_PR_UP	0.023245	0.743357	1.51E-06	3.59E-05	41
REACTOME_MRNA_PROCESSING	0.071824	0.692241	1.53E-06	3.60E-05	152
LI_DCP2_BOUND_MRNA	0.121321	0.689286	1.60E-06	3.73E-05	88
KEGG_GALACTOSE_METABOLISM	0.189246	0.694629	1.61E-06	3.74E-05	22
REACTOME_RECRUITMENT_OF_MITOTIC_CENTROSOME_PROTEINS_AND_COMPLEXES	0.17928	0.683295	1.75E-06	4.03E-05	63
FAELT_B_CLL_WITH_VH3_21_UP	0.178629	0.686338	1.85E-06	4.24E-05	43
KEGG_DRUG_METABOLISM_OTHER_ENZYMEs	0.187407	0.684879	2.19E-06	4.99E-05	23
BOYAULT_LIVER_CANCER_SUBCLASS_G3_UP	0.062244	0.676289	2.27E-06	5.11E-05	184
DAIRKEE_TERT_TARGETS_UP	0.049109	0.672478	2.28E-06	5.11E-05	339
REN_BOUND_BY_E2F	0.056789	0.692539	2.38E-06	5.29E-05	60
KANG_DOXORUBICIN_RESISTANCE_UP	0.020545	0.71192	2.82E-06	6.24E-05	54
BERTUCCI_MEDULLARY_VS_DUCTAL_BREAST_CANCER_UP	0.125887	0.66073	3.27E-06	7.19E-05	199
EPPERT_HSC_R	0.108743	0.660997	3.54E-06	7.71E-05	117
AUNG_GASTRIC_CANCER	0.22051	0.660215	3.61E-06	7.81E-05	42
REACTOME_IL_3_5_AND_GM_CSF_SIGNALING	0.212248	0.659584	3.83E-06	8.25E-05	39
REACTOME_CELL_CYCLE_CHECKPOINTS	0.072024	0.664155	3.89E-06	8.32E-05	111
HESS_TARGETS_OF_HOXA9_AND_MEIS1_DN	0.022925	0.672334	4.04E-06	8.58E-05	77
WANG_IMMORTALIZED_BY_HOXA9_AND_MEIS1_DN	0.198888	0.662286	4.37E-06	9.22E-05	23
BASSO_BLYMPHOCYTE_NETWORK	0.098699	0.653774	4.49E-06	9.41E-05	139
KEGG_STARCH_AND_SUROSE_METABOLISM	0.190545	0.661423	4.80E-06	9.99E-05	22
KEGG_RNA_Polymerase	0.180829	0.658958	5.77E-06	0.000119	29
REACTOME_FORMATION_OF_TRANSCRIPTION_COUPLED_NER_TC_NER_REPAIR_COMPLEX	0.201549	0.649437	6.76E-06	0.000139	29
KEGG_CYTOSOLIC_DNA_SENSING_PATHWAY	0.207448	0.642022	6.85E-06	0.00014	39
GARGALOVIC_RESPONSE_TO_OXIDIZED_PHOSPHOLIPIDS_TURQUOISE_DN	0.119043	0.646163	6.95E-06	0.000141	53
REACTOME_METABOLISM_OF_NON_CODING_RNA	0.159176	0.638414	9.49E-06	0.000191	48
PID_BARDI1_PATHWAY	0.171884	0.640159	1.02E-05	0.000205	29
KEGG_GLYCEROLIPID_METABOLISM	0.190525	0.629069	1.03E-05	0.000206	40
KONG_E2F3_TARGETS	0.02051	0.641853	1.09E-05	0.000215	95
REACTOME_SIGNALING_BY_JLS	0.156766	0.619796	1.24E-05	0.000245	102
GEORGANTAS_HSC_MARKERS	0.142135	0.622697	1.31E-05	0.000256	66
GEORGES_CELL_CYCLE_MIR192_TARGETS	0.175264	0.617072	1.40E-05	0.000272	62
KIM_GASTRIC_CANCER_CHEMOSensitivity	0.217632	0.610843	1.54E-05	0.000298	85
ZHANG_RESPONSE_TO_CANTHARIDIN_DN	0.116143	0.61397	1.57E-05	0.000302	67
SMIRNOV_RESPONSE_TO_IR_2HR_DN	0.181477	0.613709	1.59E-05	0.000303	54
REACTOME_PURINE_METABOLISM	0.199359	0.618081	1.71E-05	0.000324	28
TAKEDA_TARGETS_OF_NUP98_HOXA9_FUSION_3D_UP	0.069204	0.609002	1.74E-05	0.000329	168
DANG_MYC_TARGETS_UP	0.037404	0.612613	1.78E-05	0.000333	139
VALK_AML_CLUSTER_3	0.150071	0.618191	1.79E-05	0.000333	32
WUNDER_INFLAMMATORY_RESPONSE_AND_CHOLESTEROL_UP	0.145377	0.607665	2.24E-05	0.000414	47
CROONQUIST_NRAS_SIGNALING_DN	0.028366	0.621	2.24E-05	0.000414	72
SHIPP_DLBC_VS_FOLLICULARLYMPHOMA_UP	0.125312	0.611427	2.36E-05	0.000432	44
BARRIER_CANCER_RELAPSE_NORMAL_SAMPLE_DN	0.198354	0.60227	2.66E-05	0.000484	31
REACTOME_MITOTIC_PROMETAPHASE	0.086406	0.599207	2.76E-05	0.000501	85
KEGG_PEROXISOME	0.183804	0.591294	2.89E-05	0.000521	73
NIKOLSKY_BREAST_CANCER_7P22_AMPLICON	0.198761	0.596914	2.94E-05	0.000527	33
ENK_UV_RESPONSE_KERATINOCYTE_DN	0.074581	0.587572	2.98E-05	0.000531	466
REACTOME_MRNA_CAPPING	0.219175	0.598342	3.00E-05	0.000531	29
REACTOME_PEROXISOMAL_LIPID_METABOLISM	0.214599	0.596541	3.40E-05	0.0006	20
WONG_IFNA2_RESISTANCE_DN	0.238903	0.584893	3.78E-05	0.000662	29
EGUCHI_CELL_CYCLE_RB1_TARGETS	0.088887	0.630628	3.83E-05	0.000668	23
REACTOME_GO_AND_EARLY_G1	0.179814	0.593212	3.98E-05	0.00069	24
REACTOME_RNA_POL_III_TRANSCRIPTION_INITIATION_FROM_TYPE_2_PROMOTER	0.221773	0.592892	4.04E-05	0.000697	22
REACTOME_RNA_POL_II_TRANSCRIPTION_PRE_INITIATION_AND_PROMOTER_OPENING	0.209877	0.584758	4.11E-05	0.000706	40
SPIELMAN_LYMPHOBLAST_EUROPEAN_VS_ASIAN_UP	0.041867	0.575744	4.31E-05	0.000736	472
DAIRKEE_CANCER_PRONE_RESPONSE_BPA	0.192079	0.580931	4.35E-05	0.000739	46
FARMER_BREAST_CANCER_CLUSTER_2	0.069379	0.607566	4.56E-05	0.000768	32
BARRIER_CANCER_RELAPSE_NORMAL_SAMPLE_UP	0.217958	0.580939	4.57E-05	0.000768	26
PID_INTEGRIN_CS_PATHWAY	0.020212	0.583259	4.65E-05	0.000775	24
KEGG_PROPANOATE_METABOLISM	0.19645	0.582268	4.66E-05	0.000775	29
TAKEDA_TARGETS_OF_NUP98_HOXA9_FUSION_16D_DN	0.027323	0.578684	4.96E-05	0.000818	121
HOLLMANN_APOTOPSIS_VIA_CD40_DN	0.137675	0.569763	4.96E-05	0.000818	256
CUI_TCF21_TARGETS_DN	0.233416	0.576734	5.03E-05	0.000824	24
MOTHIA_FFA_OXYDATION	0.216749	0.584348	5.25E-05	0.000853	21
WAKABAYASHI_ADIPOPENESIS_PPARG_RXRA_BOUND_36HR	0.218136	0.567562	5.26E-05	0.000853	139
ALCALA_APOPTOSIS	0.150651	0.571421	5.37E-05	0.000867	86
TCGA_GLIOMBLASTOMA_COPY_NUMBER_UP	0.223658	0.568397	5.40E-05	0.000867	66
AGUIRRE_PANCREATIC_CANCER_COPY_NUMBER_UP	0.166502	0.563785	5.81E-05	0.000928	275
BENPORATH_PROLIFERATION	0.036474	0.573433	5.87E-05	0.000934	142
STEGER_ADIPOPENESIS_UP	0.184499	0.585057	6.02E-05	0.000952	16
LIANG_HEMATOPOIESIS_STEM_CELL_NUMBER_LARGE_VS_TINY_UP	0.206618	0.56607	6.31E-05	0.000993	42
PUJANA_BREAST_CANCER_L1_L1_NETWORK	0.150619	0.562789	6.65E-05	0.001041	101
FOURNIER_ACINAR_DEVELOPMENT_LATE_2	0.0404035	0.56129	6.77E-05	0.001056	272
BIOCARTA_PPARA_PATHWAY	0.228431	0.560886	6.85E-05	0.001063	50
SONG_TARGETS_OF_IIE6_CMV_PROTEIN	0.077641	0.569707	7.00E-05	0.001174	60
TORCHIA_TARGETS_OF_EWSR1_FL1_FUSION_DN	0.164055	0.553562	7.66E-05	0.001177	304
MARTINEZ_RESPONSE_TO_TRABECTEDIN	0.159474	0.563207	7.70E-05	0.001177	50
REACTOME_M_G1_TRANSITION	0.105404	0.563514	7.87E-05	0.001198	78
REACTOME_LOSS_OF_NLP_FROM_MITOTIC_CENTROSOMES	0.219632	0.551822	8.95E-05	0.001356	56
MARTINEZ_RESPONSE_TO_TRABECTEDIN_DN	0.111831	0.548793	9.17E-05	0.001384	265
BROWNE_HCMV_INFECTION_6HR_DN	0.188673	0.546431	9.56E-05	0.001433	149
REACTOME_FORMATION_OF_THE_HIV1_EARLY_ELONGATION_COMPLEX	0.224022	0.555519	9.59E-05	0.001433	33
KRIEG_KDM3A_TARGETS_NOT_HYPOXIA	0.174143	0.545419	9.76E-05	0.001452	185
ABRAMSON_INTERACT_WITH_AIRE	0.154242	0.555419	0.00106	0.00157	44
REACTOME_HIV_LIFE_CYCLE	0.148728	0.546228	0.00107	0.00157	114
MATTIOLI_MGUS_VS_PCL	0.134632	0.543715	0.00112	0.001637	108
ACOSTA_PROLIFERATION_INDEPENDENT_MYC_TARGETS_UP	0.177949	0.543875	0.00112	0.001637	75
REACTOME_LATE_PHASE_OF_HIV_LIFE_CYCLE	0.159325	0.541255	0.00125	0.001806	100
FERREIRA_EWINGS_SARCOMA_UNSTABLE_VS_STABLE_UP	0.071906	0.539778	0.00125	0.001806	153
REACTOME_CYTOSOLIC_TRNA_AMINOACYLATION	0.210452	0.550321	0.0013	0.001878	24
ZHOU_INFLAMMATORY_RESPONSE_LIVE_DN	0.155134	0.533431	0.00132	0.001894	326
GARCIA_TARGETS_OF_FL1_AND_DAX1_DN	0.09968	0.536446	0.00134	0.001909	155

NUP98-NSD1 upregulated	p.geomeai	stat.mean	p_val	q_val	set.size
ROYLANCE_BREAST_CANCER_16Q_COPY_NUMBER_UP	0.246838	0.534969	0.000136	0.001935	49
HADDAD_T_LYMPHOCYTE_AND_NK_PROGENITOR_DN	0.084984	0.546475	0.000138	0.001958	61
NIKOLSKY_BREAST_CANCER_19Q13.1_AMPLICON	0.123531	0.570772	0.000141	0.001988	22
KANG_FLUOROURACIL_RESISTANCE_UP	0.243561	0.5333185	0.00017	0.002392	20
SANSOM_APC_TARGETS	0.185158	0.524324	0.000172	0.002408	171
REACTOME_EFFECTS_OF_PIP2_HYDROLYSIS	0.217743	0.536998	0.000183	0.002547	19
KONDO_COLON_CANCER_HCP_WITH_H3K27ME1	0.25404	0.529915	0.000184	0.002554	18
RIZ_ERYTHROID_DIFFERENTIATION	0.196919	0.523281	0.00019	0.002619	73
BROWN_MYELOID_CELL_DEVELOPMENT_DN	0.174359	0.520239	0.000197	0.002702	121
GARGALOVIC_RESPONSE_TO_OXIDIZED_PHOSPHOLIPIDS_BLUE_DN	0.228263	0.521045	0.000201	0.00275	53
WANG_RESPONSE_TO_BEXAROTENE_UP	0.267512	0.522999	0.000205	0.002793	22
REACTOME_RNA_POL_II_TRANSCRIPTION	0.155185	0.522468	0.000207	0.002808	101
DIAZ_CHRONIC_MEYLOGENOUS_LEUKEMIA_DN	0.061483	0.5202694	0.000224	0.003019	114
NIKOLSKY_BREAST_CANCER_16Q24_AMPLICON	0.215283	0.518048	0.000228	0.003063	46
SCHLOSSER_MYC_TARGETS_AND_SERUM_RESPONSE_DN	0.165111	0.523444	0.00023	0.003076	46
REACTOME_TRANSPORT_OF_MATURE_MRNA_DERIVED_FROM_AN_INTRONLESS_TRANSCRIPT	0.229208	0.520711	0.000242	0.003223	32
MORI_IMMATURE_B_LYMPHOCYTE_DN	0.040451	0.524894	0.000243	0.003223	90
GAZDA_DIAMOND_BLACKFAN_ANEMIA_PROGENITOR_DN	0.158971	0.5151582	0.000254	0.003356	60
PID_TELOMERASE_PATHWAY	0.230736	0.510685	0.000257	0.003389	65
REACTOME_RNA_POL_III_TRANSCRIPTION	0.242462	0.515152	0.000264	0.003459	32
REACTOME_NEP_NS2_INTERACTS_WITH_THE_CELLULAR_EXPORT_MACHINERY	0.232594	0.518945	0.000266	0.003479	27
MOREAUX_B_LYMPHOCYTE_MATURATION_BY_TACI_DN	0.126941	0.514658	0.000277	0.003612	70
BILANGE_SERUM_SENSITIVE_VIA_TS2	0.220491	0.511069	0.000283	0.00367	36
PID_I8_CXCR1_PATHWAY	0.201206	0.514157	0.000291	0.003759	28
KEGG_CELL_CYCLE	0.148466	0.50432	0.000301	0.003877	124
REACTOME BIOSYNTHESIS_OF_THE_N_GLYCAN_PRECURSOR_DOLICHOL_LIPID_LINKED_OLIGOSACCHARIDE_LLO_AND_TRANSFER_TO_A_NASCENT_PROTEIN	0.223374	0.512231	0.000304	0.003896	27
PID_I11_PATHWAY	0.231118	0.505392	0.000322	0.004103	34
LOPEZ_TRANSLATION_VIA_FN1_SIGNALING	0.244709	0.50358	0.000324	0.004116	35
KAMMINGA_EZH2_TARGETS	0.112889	0.515262	0.00033	0.004175	41
KIM_WT1_TARGETS_DN	0.09301	0.49803	0.000332	0.00419	433
REACTOME_SULFUR_AMINO_ACID_METABOLISM	0.257536	0.507362	0.000341	0.004288	21
CHYLA_CBA2T3_TARGETS_UP	0.062533	0.496129	0.000358	0.004485	346
HAHTOLA_MYCOSIS_FUNGOIDES_CD4_DN	0.153675	0.497647	0.000368	0.004577	115
KEGG_AMINO_SUGAR_AND_NUCLEOTIDE_SUGAR_METABOLISM	0.243536	0.498279	0.000369	0.004577	41
REACTOME_FANCONI_ANEMIA_PATHWAY	0.241947	0.501326	0.000401	0.004957	21
REACTOME_INNATE_IMMUNE_SYSTEM	0.101705	0.491519	0.000406	0.005001	206
REACTOME_TRANSPORT_OF_RIBONUCLEOPROTEINS INTO THE HOST NUCLEUS	0.237842	0.498082	0.000445	0.005464	27
MARZEC_I2_SIGNALING_DN	0.251896	0.489385	0.000458	0.005596	34
KEGG_INOSITOL_PHOSPHATE_METABOLISM	0.260475	0.486695	0.000465	0.005662	50
KEGG_Nicotinate_and_nicotinamide_metabolism	0.246782	0.494329	0.000467	0.005666	19
LEE_INTRATHYMIC_T_PROGENITOR	0.233062	0.494599	0.000473	0.005718	21
TOMLINS_PROSTATE_CANCER_UP	0.236537	0.486028	0.000497	0.005959	40
NIKOLSKY_BREAST_CANCER_20Q12_Q13_AMPLICON	0.21081	0.492441	0.0005	0.005998	111
JAERVINEN_AMPLIFIED_IN_LARYNGEAL_CANCER	0.276357	0.484189	0.000508	0.006072	36
PID_MYC_PATHWAY	0.275681	0.484442	0.000543	0.006469	25
ELVIDGE_HYPOXIA_DN	0.193374	0.478362	0.000555	0.006584	140
KEGG_ALANINE ASPARTATE_AND GLUTAMATE_METABOLISM	0.247651	0.483465	0.000558	0.00666	27
BOYLAN_MULTIPLE_MYELOMA_D_DN	0.181205	0.479648	0.000562	0.006625	75
ROZANOV_MMP14_TARGETS_UP	0.251007	0.479752	0.000604	0.007088	27
REACTOME_REGULATION_OF_GLUCOKINASE_BY_GLUCOKINASE_REGULATORY_PROTEIN	0.245685	0.48366	0.000603	0.007367	25
SABATES_COLONRECTAL_ADENOMA_SIZE_UP	0.277036	0.478739	0.000641	0.007472	18
KEGG_PHOSPHATIDYLINOSITOL_SIGNALING_SYSTEM	0.235611	0.472314	0.000657	0.007612	68
ELVIDGE_HIF1A_AND_HIF2A_TARGETS_UP	0.23716	0.475117	0.000658	0.007612	39
VALK_AML_CLUSTER_6	0.213438	0.47583	0.000677	0.007078	31
PENG_RAPAMYCIN_RESPONSE_UP	0.062629	0.470758	0.000692	0.007953	240
MIKKELSEN_IPS_WITH_HCP_H3K27ME3	0.167355	0.473863	0.000755	0.008644	38
REACTOME_PYRUVATE_METABOLISM_AND_CITRIC_ACID_TCA_CYCLE	0.232532	0.469361	0.000765	0.008756	39
AMUNDSON_GAMMA_RADIATION_RESPONSE	0.088578	0.483721	0.000775	0.008806	39
PID_MYC_ACTIV_PATHWAY	0.176943	0.464846	0.000808	0.009157	78
CHIANG_LIVER_CANCER_SUBCLASS_PROLIFERATION_UP	0.042119	0.467172	0.000816	0.009171	165
REACTOME_RNA_POL_II_PRE_TRANSSCRIPTION_EVENTS	0.221133	0.466283	0.000818	0.009171	59
ICHIBA_GRAFT_VERSUS_HOST_DISEASE_35D_UP	0.038829	0.470043	0.000818	0.009171	122
REACTOME_PROCESSING_OF_CAPPED_INTRON_CONTAINING_PRE_MRNA	0.096736	0.46777	0.000836	0.009333	134
YAGI_AML_WITH_11Q23_REARRANGED	0.193307	0.456904	0.000887	0.009869	323
SCHLOSSER_MYC_AND_SERUM_RESPONSE_SYNERGY	0.216415	0.466029	0.000896	0.009942	32
KEGG_LYSOSOME	0.14604	0.456353	0.000955	0.010554	117
REACTOME_PI_METABOLISM	0.272537	0.455551	0.000984	0.010836	44
GOLUB_ALL_vs_AML_UP	0.237758	0.463487	0.000992	0.010894	24
LANG_MYB_FAMILY_TARGETS	0.265124	0.457495	0.001021	0.011174	29
YAGI_AML_RELAPSE_PROGNOSIS	0.196262	0.459568	0.001033	0.011263	35
REACTOME_TRAFF_MEDiated_IRF7_ACTIVATION	0.289338	0.457875	0.001099	0.01194	17
PID_P38_ALPHA_BETA_DOWNSTREAM_PATHWAY	0.270858	0.449967	0.001114	0.012299	36
REACTOME_GENERIC_TRANSITION_PATHWAY	0.063421	0.448291	0.001114	0.012299	315
OUILLETTE_CLL_13Q14_DELETION_UP	0.246455	0.448168	0.001143	0.012299	65
LIN_MELANOMA_COPY_NUMBER_UP	0.24254	0.448013	0.001163	0.012501	61
PID_I8_CXCR2_PATHWAY	0.210399	0.452271	0.001182	0.012634	34
WANG_IMMORTALIZED_BY_HOXA9_AND_MEIS1_UP	0.187204	0.455887	0.00122	0.012996	27
REACTOME_RNA_POL_III_TRANSSCRIPTION_INITIATION_FROM_TYPE_3_PROMOTER	0.270207	0.450122	0.001268	0.01346	25
DOUGLAS_BM12_TARGETS_DN	0.207623	0.441249	0.001272	0.01346	297
KEGG_FATTY_ACID_METABOLISM	0.248657	0.4404312	0.001458	0.015383	33
HOFFMANN_LARGE_TO_SMALL_PRE_BII_LYMPHOCYTE_UP	0.039264	0.438661	0.001534	0.016125	159
CHEOK_RESPONSE_TO_HD_MTX_UP	0.170324	0.453224	0.001552	0.016265	20
LU_IL4_SIGNALING	0.189929	0.4343	0.00158	0.016506	90
PENG_GLUTAMINE_DEPRIVATION_UP	0.295112	0.430787	0.001716	0.017866	36
WHITFIELD_CELL_CYCLE_LITERATURE	0.062658	0.448689	0.001751	0.018171	44
LASTOWSKA_NEUROBLASTOMA_COPY_NUMBER_UP	0.218357	0.427452	0.001757	0.018178	168
REACTOME_ASPARAGINE_N_LINKED_GLYCOSYLATION	0.228369	0.424738	0.001949	0.020103	76
BIOCARTA_CARM_ER_PATHWAY	0.291246	0.424874	0.001964	0.020191	33
REACTOME_METABOLISM_OF_VITAMINS_AND_COFACTORS	0.278361	0.421746	0.00207	0.021208	48
HUANG_GATA2_TARGETS_UP	0.099291	0.420558	0.002156	0.022021	143
ZHAN_V1_LATE_DIFFERENTIATION_GENES_UP	0.238891	0.422552	0.002163	0.022021	32
REACTOME_REGULATION_OF_MITOTIC_CELL_CYCLE	0.148106	0.423825	0.002176	0.022086	77
REACTOME_FORMATION_OF_RNA_POL_II_ELONGATION_COMPLEX_UP	0.2461	0.423224	0.002195	0.022214	43
MCBRYAN_PUBERTAL_BREAST_5_6WK_DN	0.246942	0.414398	0.002326	0.023461	123
REACTOME_MICRORNA_MIRNA_BIOGENESIS	0.281301	0.422947	0.002377	0.023899	22
GROSS_HIF1A_TARGETS_DN	0.276442	0.421923	0.002398	0.024042	18
OXFORD_RALA_OR_RALB_TARGETS_UP	0.131563	0.422599	0.002416	0.024141	48
ZHAN_MULTIPLE_MYELOMA_SUBGROUPS	0.201367	0.421728	0.002626	0.026179	30
JAZAG_TGFBI_SIGNALING_DN	0.295401	0.411082	0.002656	0.026378	29
KEGG_RNA_DEGRADATION	0.214093	0.413987	0.002674	0.026482	56
LYAGING_PREMATURE_DN	0.215387	0.416665	0.002734	0.026991	28
LIU_TARGETS_OF_VMYB_VS_CMYB_DN	0.222274	0.411094	0.002817	0.027722	39
PID_TOLL_ENDOGENOUS_PATHWAY	0.204718	0.415038	0.002879	0.028235	23
YUAN_ZNF143_PARTNERS	0.293128	0.410751	0.002897	0.028235	21
REICHERT_MITOSIS_LIN9_TARGETS	0.112656	0.425675	0.0029	0.028235	28
KEGG_BASAL_TRANSSCRIPTION_FACTORS	0.282759	0.408614	0.002904	0.028235	32
KEGG_PENTOSE_PHOSPHATE_PATHWAY	0.250742	0.41263	0.002913	0.028236	23
REACTOME_IL1_RECEPTOR_SHC_SIGNALING_UP	0.305348	0.406514	0.002968	0.028694	23
OKAMOTO_LIVER_CANCER_MULTICENTRIC_OCCURRENCE_UP	0.260775	0.409562	0.00298	0.028711	23
REACTOME_TRANSPORT_OF_MATURE_TRANSCRIPT_TO_CYTOPLASM	0.225523	0.408282	0.003052	0.029168	52
RATTENBACHER_BOUND_BY_CELF1	0.263613	0.400338	0.003062	0.029168	359
REACTOME_ORC1_REMOVAL_FROM_CHROMATIN	0.159192	0.407478	0.003062	0.029168	65
MONNIER_POSTRADIATION_TUMOR_ESCAPE_UP	0.20626	0.400562	0.003063	0.029168	371
GABRIELY_MIR21_TARGETS	0.103913	0.400627	0.003179	0.030183	273

NUP98-NSD1 upregulated	p.geomeai	stat.mean	p_val	q_val	set.size
DUTERRE_ESTRADIOL_RESPONSE_GHR_UP	0.130235	0.398649	0.003304	0.031275	206
MOLENAAR_TARGETS_OF_CCND1_AND_CDK4_DN	0.095602	0.405378	0.003461	0.032669	54
GAZIN_EPIGENETIC_SILENCING_BY_KRAS	0.30741	0.397126	0.003608	0.033953	24
PARK_HSC_MARKERS	0.291619	0.393304	0.003762	0.035303	43
PENG_GLUCOSE_DEPRIVATION_UP	0.288757	0.392479	0.003803	0.035585	44
BURTON_ADIPOGENESIS_6	0.165189	0.390351	0.003878	0.036176	171
PID_ARF6_TRAFFICKING_PATHWAY	0.272698	0.39176	0.003934	0.036493	43
KEGG_SELENOMINO_ACID_METABOLISM	0.285651	0.394605	0.003934	0.036493	24
GARGALOVIC_RESPONSE_TO_OXIDIZED_PHOSPHOLIPIDS_RED_DN	0.284062	0.392742	0.004007	0.037065	24
KEGG_N_GLYCAN BIOSYNTHESIS	0.256254	0.390491	0.00413	0.038092	46
GRAESSMANN_RESPONSE_TO_MC_AND_SERUM_DEPRIVATION_UP	0.190356	0.386113	0.004193	0.038562	174
ELVIDGE_HYPOKIA_BY_DMOG_DN	0.247084	0.387926	0.004218	0.038682	55
CHIANG_LIVER_CANCER_SUBCLASS_UNANNOTATED_DN	0.042972	0.389042	0.004243	0.038684	182
LUI_THYROID_CANCER_PAX8_PPARG_UP	0.299707	0.386772	0.004254	0.038739	41
EHLERS_ANEUPLOIDY_UP	0.311142	0.386722	0.00426	0.038739	38
KEGG_GLYCOSYLPHOSPHATIDYLINOSITOL_GPI_ANCHOR_BIOSYNTHESIS	0.286564	0.390438	0.004296	0.038955	25
BIOCARTA_RAC1_PATHWAY	0.317529	0.387733	0.004364	0.039459	22
KYNG_ENVIRONMENTAL_STRESS_RESPONSE_NOT_BY_4NQO_IN_WS	0.295974	0.383274	0.004603	0.041507	39
BIOCARTA_SPNA_PATHWAY	0.278715	0.387236	0.00463	0.041635	20
REACTOME_CYCLIN_E_ASSOCIATED_EVENTS_DURING_G1_S_TRANSITION_KIM_TIAL1_TARGETS	0.177496	0.38534	0.004732	0.042429	62
CHEMNITZ_RESPONSE_TO_PROSTAGLANDIN_E2_UP	0.272499	0.382939	0.004941	0.043815	30
SCHLOSSER_SERUM_RESPONSE_AUGMENTED_BY_MYC	0.099986	0.379546	0.005026	0.044818	141
SCHLOSSER_MYC_TARGETS_AND_SERUM_RESPONSE_UP	0.224482	0.376985	0.00519	0.04615	99
SNIJDERS_AMPLIFIED_IN_HEAD_AND_NECK_TUMORS	0.175249	0.382903	0.005287	0.046887	46
RIZ_ERYTHROID_DIFFERENTIATION_GHR	0.297955	0.376503	0.005344	0.047214	31
BIOCARTA_CELLCYCLE_PATHWAY	0.228186	0.385213	0.005354	0.047214	25
REACTOME_INHIBITION_OF_THE_PROTEOLYTIC_ACTIVITY_OF_APCC_REQUIRED_FOR_THE_ONSET_OF_ANAPHASE_BY_MITOTIC_SPINDLE_CHECKPOINT_COMPONENTS	0.279266	0.376429	0.005677	0.049934	23
REACTOME_GRB2_EVENTS_IN_ERBB2_SIGNALING	0.288197	0.379287	0.005758	0.050511	18
ELVIDGE_HIF1A_TARGETS_UP	0.320734	0.372119	0.006011	0.052588	18
BYSTRYKH_HEMATOPOEISIS_STEM_CELL_QTL_CIS	0.274067	0.368424	0.006097	0.053192	64
PID_EZF_PATHWAY	0.237545	0.367116	0.006146	0.054278	114
REACTOME_PHOSPHORYLATION_OF_THE_APCC	0.209088	0.367117	0.006397	0.055508	72
REACTOME_SYNTHESIS_OF_PA	0.292405	0.373751	0.006643	0.055642	17
BIOCARTA_TNFR1_PATHWAY	0.269063	0.371718	0.006493	0.05604	19
MANTOVANI_VIRAL_GPCR_SIGNALING_DN	0.306103	0.365757	0.006712	0.057775	29
REACTOME_REGULATORY_RNA_PATHWAYS	0.303208	0.366219	0.006997	0.059893	25
LIM_MAMMARY_STEM_CELL_DN	0.188328	0.359087	0.007013	0.059893	376
SCIAN_CELL_CYCLE_TARGETS_OF_TP53_AND_TP73_DN	0.168203	0.379419	0.007044	0.059991	22
MORI_EMU_MYC LYMPHOMA_BY_ONSET_TIME_UP	0.185796	0.359854	0.007227	0.061396	102
AMIT_SERUM_RESPONSE_48H_MCF10A	0.298395	0.360784	0.007316	0.061947	28
PENG_LEUCINE_DEPRIVATION_UP	0.105472	0.358971	0.007343	0.061947	186
CHEN_LIVER_METABOLISM_QTL_CIS	0.268611	0.357725	0.00735	0.061947	78
MARIADASON_RESPONSE_TO_BUTYRATE_SULINDAC_6	0.288611	0.35922	0.007378	0.062021	45
KEGG_RIG_I_LIKE_RECEPтор_SIGNALING_PATHWAY	0.26495	0.358487	0.007463	0.062492	53
HOWLIN_PUBERTAL_MAMMARY_GLAND	0.223778	0.359864	0.007473	0.062492	49
PARK_TRETINOIN_RESPONSE_AND_RARA_PLZF_FUSION	0.23977	0.363975	0.007818	0.065214	22
ODONNIGUES_DCC_TARGETS_DN	0.121194	0.365784	0.007989	0.066465	43
RODRIGUES_DCC_TARGETS_UP	0.294541	0.352007	0.008075	0.067006	115
KYNG_RESPONSE_TO_H2O2_VIA_ERCC6_UP	0.309809	0.354006	0.008108	0.067112	38
REACTOME_POST_TRANSLATIONAL_MODIFICATION_SYNTHESIS_OF_GPI_ANCHORED_PROTEINS	0.312461	0.355599	0.008203	0.067565	25
STEIN_ESRA_TARGETS_UP	0.176338	0.350573	0.008222	0.067565	358
LIU_LIVER_CANCER	0.324565	0.353374	0.008238	0.067565	28
WANG_RESPONSE_TO_FORSKOLIN_UP	0.314334	0.355703	0.008247	0.067565	20
KEGG_GLYCEROIPHOSPHOLIPID_METABOLISM	0.289422	0.351807	0.0083	0.067828	62
BILD_SRC_ONCOGENIC_SIGNATURE	0.318008	0.350515	0.00842	0.06855	56
BIOCARTA_BAD_PATHWAY	0.319212	0.353078	0.008431	0.06855	24
FRASOR_RESPONSE_TO_SERM_OR_FULVESTRANT_UP	0.308124	0.354045	0.008459	0.068604	21
STEIN_ESRA_TARGETS_RESPONSIVE_TO_ESTROGEN_DN	0.190693	0.355155	0.008634	0.069848	38
DEURIG_T_CELL_PROLYMPHOCTIC_LEUKEMIA_UP	0.158533	0.347779	0.008709	0.070285	318
KEGG_ETHER_LIPID_METABOLISM	0.285129	0.352458	0.008895	0.071605	22
CHOW_RASSF1_TARGETS_UP	0.309551	0.3486	0.009276	0.074482	27
ZHAN_MULTIPLE_MYELOMA_LB_DN	0.235377	0.349411	0.009372	0.075065	36
KENNY_CTNNB1_TARGETS_UP	0.271042	0.34537	0.009511	0.075991	45
KEGG_FRUCTOSE_AND_MANNOSE_METABOLISM	0.27987	0.346852	0.009682	0.077166	29
REACTOME_CONVERSION_FROM_APCC_CDCA20_TO_APCC_CDH1_IN_LATE_ANAPHASE	0.324232	0.349532	0.009735	0.077403	16
REACTOME_PROCESSING_OF_CAPPED_INTRONLESS_PRE_MRNA	0.289372	0.350207	0.009759	0.077403	23
BIOCARTA_TOLL_PATHWAY	0.263303	0.3455	0.009805	0.077578	37
REACTOME_PLC_BETA_MEDiated_EVENTS	0.307245	0.34368	0.009834	0.077613	36
KEGG_VASCULAR_SMOOTH_MUSCLE_CONTRACTION	0.248333	0.342073	0.009943	0.07822	85
GARGALOVIC_RESPONSE_TO_OXIDIZED_PHOSPHOLIPIDS_GREEN_DN	0.321075	0.344224	0.009959	0.07822	24
MELLMAN_TUT1_TARGETS_DN	0.314854	0.341372	0.010096	0.079103	43
WIKMAN_ASBESTOS_LUNG_CANCER_DN	0.236008	0.346261	0.010142	0.079273	26
WATANABE_RECTAL_CANCER_RADIOTHERAPY_RESPONSIVE_UP	0.279554	0.339967	0.010199	0.079522	101
NUNODA_RESPONSE_TO_DASATINIB_IMATINIB_UP	0.31233	0.342173	0.010302	0.080135	29
REACTOME_INTERACTIONS_OF_VPR_WITH_HOST_CELLULAR_PROTEINS	0.284759	0.340817	0.011038	0.085648	32
REACTOME_CA_DEPENDENT_EVENTS	0.307782	0.337126	0.011341	0.087793	25
PID_RHOA_PATHWAY	0.315247	0.334565	0.011492	0.088542	42
WAKABAYASHI_ADIPogenesis_PPARG_RXRA_BOUND_WITH_H4K20ME1_MARK	0.261201	0.332882	0.011493	0.088542	134
TRAYNOR_RETTE_SYNDROM_UP	0.263448	0.337816	0.01159	0.089074	29
KLEIN_TARGETS_OF_BCR_ABL1_FUSION	0.243169	0.335615	0.011662	0.089253	44
REACTOME_ACYL_CHAIN_Remodelling_OF_PC	0.296713	0.342918	0.011668	0.089253	13
ACEVEDO_LIVER_CANCER_WITH_H3K9ME3_DN	0.222484	0.333303	0.011735	0.089304	97
XU_CREBBP_TARGETS_UP	0.318117	0.334833	0.011756	0.089304	24
REACTOME_MITOCHONDRIAL_PROTEIN_IMPORT	0.22101	0.336368	0.011758	0.089304	50
WANG_CLIM2_TARGETS_UP	0.295681	0.330181	0.011919	0.090187	222
KEGG_Cysteine_and_Methionine_Metabolism	0.283126	0.335957	0.01193	0.090187	27
JOHNSTONE_PARVB_TARGETS_2_DN	0.146024	0.330519	0.012026	0.090698	321
ZHANG_RESPONSE_TO_IKK_INHIBITOR_AND_TNF_DN	0.271405	0.330505	0.012026	0.090893	91
LI_WILMS_TUMOR_VS_FETAL_KIDNEY_1_DN	0.111053	0.33074	0.012247	0.091939	156
HASLINGER_B CLL_WITH_CHROMOSOME_12_TRISOMY	0.305296	0.335012	0.012325	0.092308	23
ST_INTERLEUKIN_4_PATHWAY	0.31614	0.332344	0.012437	0.092929	23
PID_CMVB_PATHWAY	0.2699	0.328746	0.012568	0.093693	80
REACTOME_CLASS_I_MHC_MEDiated_ANTIGEN_PROCESSING_PRESENTATION	0.17246	0.328534	0.012604	0.093728	226
BREDEMEYER_RAG_SIGNALING_NOT_VIA_ATM_DN	0.297821	0.329035	0.012631	0.093728	53
WHITFIELD_CELL_CYCLE_G2	0.156122	0.327745	0.012754	0.094423	169
RAMALHO_STEMNESS_UP	0.138692	0.327528	0.012785	0.094442	203
KIM_MYC_AMPLIFICATION_TARGETS_DN	0.299104	0.326483	0.012946	0.095409	82
STAMBOLSKY_TARGETS_OF_MUTATED_TP53_DN	0.233678	0.328322	0.013334	0.098046	43
REACTOME_APCC_CDCA20_MEDiated_degradation_OF_NEK2A	0.285652	0.332637	0.013382	0.098173	21
REACTOME_ACYL_CHAIN_Remodelling_OF_pe	0.306016	0.334326	0.013544	0.099051	12
SCHLINGEMANN_SKIN_CARCINOGENESIS_TPA_UP	0.268118	0.327827	0.013563	0.099051	30
REACTOME_GLUCOSE_TRANSPORT	0.300186	0.327114	0.01363	0.099315	33
FINNETT_BREAST_CANCERS_KINOME_BLUE	0.296475	0.330402	0.013691	0.099359	17

Supplemental table 9. GSEA of downregulated genes in NUP98-NSD1

NUP98-NSD1 downregulated	p.geomean	stat.mean	p.val	q.val	set.size
LIU_PROSTATE_CANCER_DN	0.000654796	-2.387767839	1.48E-59	4.76E-56	374
VALK_AML_CLUSTER_8	0.000697773	-2.145674477	1.25E-36	2.01E-33	26
ZHAN_MULTIPLE_MYELOMA_MS_UP	0.013631445	-1.877285733	2.00E-35	2.15E-32	41
PASINI_SUZ12_TARGETS_DN	0.006409387	-1.751521658	5.01E-33	4.05E-30	276
BOQUEST_STEM_CELL_UP	0.001832409	-1.734902627	1.09E-31	7.05E-29	193
PEREZ_TP63_TARGETS	0.006898429	-1.699985009	2.90E-31	1.56E-28	282
MEISSNER_NPC_HCP_WITH_H3K4ME2	0.010514668	-1.599266365	5.46E-28	2.38E-25	367
RICKMAN_HEAD_AND_NECK_CANCER_A	0.028634243	-1.62180588	6.17E-28	2.38E-25	62
MEISSNER_NPC_HCP_WITH_H3K4ME3_AND_H3K27ME3	0.019872832	-1.611784931	6.64E-28	2.38E-25	97
CHYLA_CBFAT3_TARGETS_DN	0.0055623154	-1.5957774	1.65E-27	5.32E-25	209
DELYS_THYROID_CANCER_DN	0.012229105	-1.57038302	9.31E-27	2.73E-24	178
MITSIADES_RESPONSE_TO_APPLIDIN_UP	0.005276449	-1.498211654	9.41E-25	2.53E-22	410
DAVICIONI_TARGETS_OF_PAX_FOXO1_FUSIONS_UP	0.024559976	-1.495343396	1.09E-24	2.70E-22	228
CHARAFI_BREAST_CANCER_LUMINAL_VS_MESENCHYMAL_DN	0.007857294	-1.489012631	1.66E-24	3.83E-22	420
LINDGREN_BLADDER_CANCER_CLUSTER_2B	0.005247996	-1.488984942	2.19E-24	4.72E-22	344
CAIRO_LIVER_DEVELOPMENT_UP	0.029161195	-1.473683536	6.56E-24	1.32E-21	141
PEREZ_TP53_AND_TP63_TARGETS	0.019120741	-1.441095993	6.31E-23	1.20E-20	166
PICCALUGA_ANGIOIMMUNOBLASTIC_LYMPHOMA_DN	0.003954959	-1.440033331	3.48E-22	6.11E-20	129
ACEVEDO_FGFRI_TARGETS_IN_PROSTATE_CANCER_MODEL_DN	0.029995673	-1.410468487	3.59E-22	6.11E-20	216
SATO_SILENCED_BY_METHYLATION_IN_PANCREATIC_CANCER_1	0.017580412	-1.404030546	5.18E-22	8.36E-20	317
PID_WNT_SIGNALING_PATHWAY	0.052294508	-1.452827836	7.08E-22	1.09E-19	20
NABA_CORE_MATRISOME	0.006734283	-1.414728948	7.98E-22	1.17E-19	174
CHIARADONNA_NEOPLASTIC_TRANSFORMATION_CDC25_UP	0.026102563	-1.383451827	4.63E-21	6.50E-19	107
DURAND_STROMA_S_UP	0.018211382	-1.365711683	7.73E-21	1.04E-18	238
BROWNE_HCMV_INFECTION_20HR_UP	0.042732504	-1.3571836	9.79E-21	1.26E-18	220
GUO_HEX_TARGETS_UP	0.059919514	-1.344601356	3.56E-20	4.42E-18	73
MIKKELSEN_MCV6_HCP_WITH_H3K27ME3	0.018439639	-1.343218905	3.73E-20	4.46E-18	218
VILIMAS_NOTCH1_TARGETS_UP	0.022125689	-1.3742655	4.28E-20	4.94E-18	48
KINSEY_TARGETS_OF_EWSR1_FII_FUSION_DN	0.023620487	-1.331705453	5.44E-20	6.06E-18	294
CHEBOTAEV_GR_TARGETS_DN	0.03857566	-1.334255075	8.44E-20	9.08E-18	95
PLASARI_TGFBI1_SIGNALING_VIA_NFIC_1HR_DN	0.050008936	-1.3282729	1.03E-19	1.07E-17	87
KAAB_HEART_ATRIUM_VS_VENTRICLE_UP	0.047414111	-1.315454152	1.42E-19	1.43E-17	198
HELLER_HDAC_TARGETS_SILENCED_BY METHYLATION_UP	0.018732161	-1.313370149	1.57E-19	1.53E-17	387
DORN_ADENOVIRUS_INFECTION_48HR_DN	0.033732435	-1.340051955	3.64E-19	3.45E-17	36
PLASARI_TGFBI1_TARGETS_1HR_UP	0.024525726	-1.348778468	7.12E-19	6.56E-17	32
WANG_SMARCE1_TARGETS_UP	0.01763662	-1.289058621	9.98E-19	8.95E-17	234
DORN_ADENOVIRUS_INFECTION_32HR_DN	0.03662879	-1.315768717	1.38E-18	1.19E-16	36
MANALO_HYPoxIA_UP	0.025685041	-1.282554223	1.40E-18	1.19E-16	185
SCHAFFER_PROSTATE_DEVELOPMENT_48HR_DN	0.03171916	-1.272181376	1.91E-18	1.58E-16	333
HADDAD_T_LYMPHOCYTE_AND_NK_PROGENITOR_UP	0.032096635	-1.291590984	2.33E-18	1.88E-16	77
NABA_ECM_GLYCOPROTEINS	0.023881893	-1.279285497	3.03E-18	2.39E-16	120
ONDER_CDH1_TARGETS_2_UP	0.013025012	-1.272089637	3.22E-18	2.47E-16	223
MOHANKUMAR_TLX1_TARGETS_DN	0.040186904	-1.248053373	1.23E-17	9.25E-16	135
ZHOU_INFLAMMATORY_RESPONSE_LIVE_UP	0.008892002	-1.241274458	1.43E-17	1.05E-15	361
MOREAUX_MULTIPLE_MYELOMA_BY_TACI_UP	0.03271441	-1.235964768	1.64E-17	1.18E-15	309
WAMUNYOKOLI_OVARIAN_CANCER_LMP_DN	0.039855085	-1.235877381	2.05E-17	1.44E-15	174
SERVITIA_ISLET_HNF1A_TARGETS_UP	0.031221157	-1.241349299	2.23E-17	1.53E-15	114
DORN_ADENOVIRUS_INFECT_24HR_DN	0.037661226	-1.261500303	2.29E-17	1.54E-15	41
SENESE_HDAC1_TARGETS_DN	0.053216986	-1.224894812	3.23E-17	2.12E-15	208
WONG_ENDOMETRIUM_CANCER_DN	0.03248667	-1.247472704	4.36E-17	2.81E-15	57
SWEET_KRAS_TARGETS_UP	0.04940832	-1.223786952	6.34E-17	4.01E-15	79
KONDO_EZH2_TARGETS	0.046503807	-1.212992003	6.98E-17	4.29E-15	189
PODAR_RESPONSE_TO_ADAPHOSTIN_UP	0.013492448	-1.225272403	7.05E-17	4.29E-15	143
LABBE_TGFBI1_TARGETS_UP	0.052882264	-1.217689702	7.69E-17	4.60E-15	88
IVANOVA_HEMATOPOIESIS_STEM_CELL	0.068225267	-1.200877305	1.17E-16	6.89E-15	210
NAKAYAMA_SOFT_TISSUE_TUMORS_PCA1_DN	0.057343315	-1.224734812	1.25E-16	7.20E-15	48
DANG_REGULATED_BY_MYC_DN	0.031503983	-1.197055649	1.76E-16	9.95E-15	234
REN_ALVEOLAR_RHABDOMYOSARCOMA_UP	0.080011271	-1.192032081	2.78E-16	1.55E-14	76
KAYO_CALORIE_RESTRICTION_MUSCLE_UP	0.058193953	-1.19491165	2.95E-16	1.61E-14	81
KANG_IMMORTALIZED_BY_TERT_DN	0.066526965	-1.194294392	3.00E-16	1.61E-14	69
BOQUEST_STEM_CELL_CULTURED_VS_FRESH_UP	0.014647066	-1.182801866	4.11E-16	2.17E-14	346
KEGG_BASAL_CELL_CARCINOMA	0.06946482	-1.193885795	5.46E-16	2.84E-14	40
VERHAAK_GILOBLASTOMA_PRONEURAL	0.071017063	-1.174293187	6.27E-16	3.18E-14	132
SENESE_HDAC1_AND_HDAC2_TARGETS_DN	0.043244939	-1.175454338	6.31E-16	3.18E-14	174
DELYS_THYROID_CANCER_UP	0.007672367	-1.174782116	6.73E-16	3.34E-14	384
DAVICIONI_MOLECULAR_ARMS_VS_ERMS_DN	0.051076965	-1.169326792	8.63E-16	4.22E-14	156
DAUER_STAT3_TARGETS_UP	0.040190558	-1.197307994	9.09E-16	4.38E-14	43
LIN_NPAS4_TARGETS_DN	0.079043214	-1.172438726	1.15E-15	5.44E-14	54
REACTOME_GPCR_LIGAND_BINDING	0.02340829	-1.166558813	1.24E-15	5.79E-14	196
WU_CELL_MIGRATION	0.027622616	-1.167059424	1.34E-15	6.16E-14	153
PLASARI_NFIC_TARGETS_BASAL_UP	0.086385943	-1.210138596	1.36E-15	6.20E-14	16
HELLEBREKERS_SILENCED_DURING_TUMOR_ANGIOGENESIS	0.046950758	-1.167069315	2.01E-15	8.92E-14	69
REACTOME_DEVOLUTIONAL_BIOLOGY	0.041298676	-1.150134067	2.02E-15	8.92E-14	306
REACTOME_AXON_GUIDANCE	0.045319966	-1.151893948	2.06E-15	9.00E-14	202
DEURIG_T_CELL_PROLYMPHOCYTIC_LEUKEMIA_DN	0.013912035	-1.151202163	2.47E-15	1.06E-13	302
MIKKELSEN_NPC_HCP_WITH_H3K4ME3_AND_H3K27ME3	0.042302534	-1.149663781	3.07E-15	1.30E-13	135
SWEET_LUNG_CANCER_KRAS_DN	0.018124946	-1.143209004	3.37E-15	1.41E-13	348
NAKAYAMA_SOFT_TISSUE_TUMORS_PCA2_DN	0.044869842	-1.166825664	3.53E-15	1.46E-13	55
LIM_MMAMMARY_LUMINAL_MATURE_DN	0.05106057	-1.149072178	3.86E-15	1.58E-13	82
NAGASHIMA_EGF_SIGNALING_UP	0.014107509	-1.171703599	6.03E-15	2.43E-13	56
BERENJENO_TRANSFORMED_BY_RHOA_DN	0.048198369	-1.119134459	1.03E-14	4.12E-13	361
HERNANDEZ_ABERRANTMITOSIS_BY_DOCETAXEL_4NM_UP	0.010566606	-1.149808002	1.42E-14	5.57E-13	16
TARTE_PLASMA_CELL_VS_PLASMAPLAST_UP	0.019614393	-1.10935973	2.10E-14	8.15E-13	312
SABATES_COLONRECTAL_ADENOMA_DN	0.019742493	-1.117916807	2.29E-14	8.70E-13	152
SMID_BREAST_CANCER_RELAPSE_IN_BONE_DN	0.049380471	-1.106477326	2.29E-14	8.70E-13	226
KEGG_PATHWAYS_IN_CANCER	0.064780848	-1.100159971	2.76E-14	1.04E-12	284
HOELZEL_NF1_TARGETS_UP	0.0595958718	-1.107319735	2.91E-14	1.08E-12	108
MIYAGAWA_TARGETS_OF_EWSR1ETS_FUSIONS_DN	0.026222225	-1.106897748	3.05E-14	1.12E-12	172
ZHANG_TLX_TARGETS_60HR_UP	0.045602619	-1.094716222	4.08E-14	1.48E-12	265
TSENG_ADIPONETIC_POTENTIAL_UP	0.098030106	-1.11608677	4.26E-14	1.53E-12	25
LABBE_TARGETS_OF_TGFBI1_AND_WNT3A_UP	0.092621651	-1.090150714	5.92E-14	2.10E-12	89
YAMAZAKI_TCEB3_TARGETS_UP	0.060157571	-1.088374347	6.30E-14	2.21E-12	153
CHIARADONNA_NEOPLASTIC_TRANSFORMATION_KRAS_DN	0.05995425	-1.087018858	7.17E-14	2.48E-12	135
RIGGI_EWING_SARCOMA_PROGENITOR_UP	0.036573393	-1.083622433	7.22E-14	2.48E-12	322
CONCANNON_APOPTOSIS_BY_EPOXOMICIN_UP	0.037648302	-1.077752873	1.05E-13	3.58E-12	227
REACTOME_AMYLOIDS	0.023038069	-1.104616202	1.16E-13	3.91E-12	62
DORN_ADENOVIRUS_INFECT_12HR_UP	0.087150259	-1.101934744	1.18E-13	3.94E-12	24
DAVICIONI_TARGETS_OF_PAX_FOXO1_FUSIONS_DN	0.074632277	-1.085648549	1.28E-13	4.21E-12	53
SASA_RESISTANCE_TO_NEOPLASTIC_TRANSFROMATION	0.0625257358	-1.088366051	1.65E-13	5.37E-12	46
ZHOU_INFLAMMATORY_RESPONSE_LPS_UP	0.028236289	-1.063401872	2.11E-13	6.80E-12	294
PLASARI_TGFBI1_TARGETS_10HR_UP	0.027930582	-1.066891568	2.31E-13	7.40E-12	162
LEE_EARLY_T_LYMPHOCYTE_DN	0.033368198	-1.082518197	3.74E-13	1.18E-11	54
RICKMAN_TUMOR_DIFFERENTIATED_WELL_VS_Poorly_DN	0.041377562	-1.049759127	3.95E-13	1.24E-11	315
DIRMEIER_LMP1_RESPONSE_EARLY	0.023922341	-1.075373626	4.03E-13	1.25E-11	63

NUP98-NSD1 downregulated	p.geomean	stat.mean	p.val	q.val	set.size
REN_ALVEOLAR_RHABDOMYOSARCOMA_DN	0.018743886	-1.044233235	5.69E-13	1.75E-11	389
KRIEG_HYPOXIA_VIA_KDM3A	0.069811654	-1.054777854	6.99E-13	2.13E-11	48
KIM_WT1_TARGETS_UP	0.026095955	-1.040665863	7.72E-13	2.33E-11	197
JAEGER_METASTASIS_DN	0.038172614	-1.032979914	1.24E-12	3.71E-11	158
HANN_RESISTANCE_TO_BCL2_INHIBITOR_UP	0.111523808	-1.042442715	2.26E-12	6.68E-11	21
VALK_AML_CLUSTER_13	0.076269533	-1.060395041	2.51E-12	7.36E-11	30
ZHAN_MULTIPLE_MYELOMA_SPIKED	0.102534606	-1.04466514	2.95E-12	8.59E-11	18
MCBRYAN_PUBERTAL_BREAST_4_5WK_UP	0.040781612	-1.010646681	3.15E-12	9.09E-11	203
DAVICIONI_PAX_FOXO1_SIGNATURE_IN_ARMS_UP	0.106030667	-1.0137913	3.47E-12	9.90E-11	50
MEISSNER_NPC_HCP_WITH_H3K4ME2_AND_H3K27ME3	0.049932466	-1.007771174	3.90E-12	1.10E-10	164
HERNANDEZ_MITOTIC_ARREST_BY_DOCETAXEL_1_UP	0.117484447	-1.024126254	4.03E-12	1.13E-10	24
SATO_SILENCED_BY METHYLATION_IN_PANCREATIC_CANCER_2	0.092283388	-1.01706592	5.04E-12	1.40E-10	33
WOO_LIVER_CANCER_RECURRENCE_UP	0.069636833	-1.00268902	5.22E-12	1.44E-10	96
LEE_TARGETS_OF_PTCH1_AND_SUFU_DN	0.107944576	-1.000881085	5.92E-12	1.62E-10	58
KAAB_FAILED_HEART_ATRIUM_DN	0.079938579	-0.9938134	6.68E-12	1.81E-10	136
KEGG_ADHERENS_JUNCTION	0.110541979	-0.9952136	6.73E-12	1.81E-10	69
LABBE_WNT3A_TARGETS_UP	0.084990452	-0.991485333	7.96E-12	2.12E-10	96
STEGER_ADIPGENESIS_DN	0.112181019	-1.027806168	9.30E-12	2.46E-10	15
RODWELLAGING_KIDNEY_NO_BLOOD_DN	0.105502465	-0.980477164	1.13E-11	2.96E-10	133
CERVERA_SDHB_TARGETS_2	0.076869482	-0.979379551	1.60E-11	4.15E-10	88
BRECKNER_TARGETS_OF_MIRLET7A3_DN	0.081252537	-0.980330053	1.68E-11	4.34E-10	70
KEGG_FOCAL_ADHESION	0.051838399	-0.970955704	1.95E-11	5.00E-10	178
RODWELLAGING_KIDNEY_DN	0.100242895	-0.968766182	2.01E-11	5.10E-10	125
ZHONG_RESPONSE_TO_AZACITIDINE_AND_TSA_UP	0.083474014	-0.966831717	2.17E-11	5.46E-10	156
BHAT_ESR1_TARGETS_NOT_VIA_AKT1_DN	0.085220499	-0.971249269	2.31E-11	5.79E-10	77
CARD_MIR302A_TARGETS	0.117552915	-0.96835471	2.34E-11	5.80E-10	67
REACTOME_NCAM_SIGNALING_FOR_NEURITE_OUT_GROWTH	0.089701885	-0.974761921	2.38E-11	5.85E-10	55
BROWNE_HCMV_INFECTON_16HR_UP	0.088225954	-0.962657329	2.43E-11	5.95E-10	208
REACTOME_TRANSMISSION_ACROSS_CHEMICAL_SYNAPSES	0.101139213	-0.962807533	2.65E-11	6.44E-10	118
YANG_BCL3_TARGETS_UP	0.044685305	-0.955577638	3.56E-11	8.57E-10	309
REACTOME_NEURONAL_SYSTEM	0.075982553	-0.953980679	3.98E-11	9.52E-10	171
KEGG_ARRHYTHMOGENIC_RIGHT_VENTRICULAR_CARDIOMYOPATHY_ARVC	0.101796701	-0.960492144	4.10E-11	9.71E-10	59
INGRAM_SHH_TARGETS_UP	0.05942487	-0.954981843	4.12E-11	9.71E-10	104
REACTOME_PEPTIDE_LIGAND_BINDING_RECEPTEORS	0.057558423	-0.963889412	4.19E-11	9.79E-10	81
BURTON_ADIPGENESIS_7	0.107934612	-0.961872944	4.24E-11	9.86E-10	45
PANGAS_TUMOR_SUPPRESSION_BY_SMAD1_AND_SMAD5_UP	0.089205558	-0.953762483	4.28E-11	9.88E-10	113
HINATA_NFKB_TARGETS_FIBROBLAST_UP	0.070023775	-0.954664247	5.63E-11	1.29E-09	73
BILD_HRAS_ONCOGENIC_SIGNATURE	0.026450328	-0.948843205	5.72E-11	1.30E-09	225
YAGI_AML_FAB_MARKERS	0.052886088	-0.945374763	6.75E-11	1.52E-09	185
WALLACE_PROSTATE_CANCER_RACE_UP	0.012315628	-0.946736472	6.99E-11	1.57E-09	260
MARTORIATI_MDM4_TARGETS_NEUROEPITHELIUM_DN	0.10691127	-0.941233663	7.24E-11	1.60E-09	114
LINDSTEDT_DENDRITIC_CELL_MATURATION_B	0.042675744	-0.960718719	7.25E-11	1.60E-09	53
PHONG_TNF_TARGETS_UP	0.021638196	-0.969245439	7.77E-11	1.71E-09	59
GAUSSMANN_MLL_AF4_FUSION_TARGETS_F_UP	0.071413782	-0.939254653	8.06E-11	1.75E-09	150
KORKOLA_YOLK SAC_TUMOR	0.1131312845	-0.948733913	8.09E-11	1.75E-09	41
BROWNE_HCMV_INFECTON_6HR_UP	0.120789446	-0.941318091	8.62E-11	1.85E-09	56
HOOI_ST7_TARGETS_DN	0.086889637	-0.933176961	1.14E-10	2.45E-09	100
REACTOME_CLASS_B_2_SECRETIN_FAMILY_RECEPTEORS	0.118455588	-0.935184932	1.25E-10	2.65E-09	49
MCCLUNG_DELTA_FOSB_TARGETS_8WK	0.124096677	-0.935076405	1.33E-10	2.80E-09	39
VANDESLUIS_COMM1_TARGETS_GROUP_3_DN	0.126336305	-0.948915638	1.42E-10	2.98E-09	22
LEIN_MIDBRAIN_MARKERS	0.134851052	-0.925982925	1.57E-10	3.27E-09	60
CHARAF_BREAST_CANCER_LUMINAL_VS_BASAL_UP	0.11080966	-0.91809847	1.67E-10	3.46E-09	333
BIOCARTA_TOB1_PATHWAY	0.103243226	-0.960102137	1.78E-10	3.66E-09	17
BAELDE_DIABETIC_NEPHROPATHY_DN	0.055824536	-0.917385877	1.83E-10	3.74E-09	411
MULLIGHAN_NPM1_MUTATED_SIGNATURE_1_DN	0.091964347	-0.920141185	1.88E-10	3.82E-09	116
SHAFFER_IRF4_MULTIPLE_MYELOMA_PROGRAM	0.131566658	-0.921154346	2.58E-10	5.20E-09	34
SIMBULAN_PARP1_TARGETS_UP	0.107939424	-0.9313189	3.04E-10	6.10E-09	27
ROME_INSULIN_TARGETS_IN_MUSCLE_UP	0.02645428	-0.906440211	3.29E-10	6.55E-09	409
RAMASWAMY_METASTASIS_DN	0.127169177	-0.912284123	3.41E-10	6.74E-09	44
DAVICIONI_RHABDOMYOSARCOMA_PAX_FOXO1_FUSION_UP	0.135622432	-0.907514294	3.70E-10	7.29E-09	53
REACTOME_G_ALPHA_I_SIGNALLING_EVENTS	0.058093814	-0.909166995	3.83E-10	7.50E-09	110
PETROVA_ENDOTHELIUM_LYMPHATIC_VS_BLOOD_DN	0.058602183	-0.904153758	4.06E-10	7.90E-09	143
WORSCHEH_TUMOR_EVASION_AND_TOLEROGENICITY_UP	0.116539265	-0.919949517	4.44E-10	8.58E-09	24
GRAHAM_CML QUIESCENT_VS_NORMAL_DIVIDING_UP	0.056404917	-0.918114761	4.55E-10	8.74E-09	50
REACTOME_A_TETRASACCHARIDE_LINKER_SEQUENCE_IS_REQUIRED_FOR_GAG_SYNTHESIS	0.1153069	-0.924530858	5.06E-10	9.67E-09	22
TSENG_ADIPGENIC_POTENTIAL_DN	0.10894533	-0.909002363	5.66E-10	1.08E-08	35
REACTOME_NEUROTRANSMITTER_RELEASE_CYCLE	0.135932567	-0.912425725	5.98E-10	1.13E-08	20
MODY_HIPPOCAMPUS_NEONATAL	0.128670756	-0.904556192	6.43E-10	1.21E-08	30
ELVIDGE_HYPOXIA_UP	0.067945133	-0.889856109	7.25E-10	1.35E-08	151
UDAYAKUMAR_MED1_TARGETS_DN	0.068835691	-0.887220824	7.25E-10	1.35E-08	220
HADDAD_B_LYMPHOCYTE_PROGENITOR	0.056728218	-0.884406208	7.88E-10	1.45E-08	373
KUMAR_TARGETS_OF_MLL_AF9_FUSION	0.096445095	-0.890178585	8.12E-10	1.48E-08	80
PEDERSEN_METASTASIS_BY_ERBB2_ISOFORM_4	0.055277698	-0.887064234	8.28E-10	1.50E-08	169
NABA_SECRETED_FACTORS	0.1136907	-0.889115293	8.37E-10	1.51E-08	66
YAO_TEMPORAL_RESPONSE_TO_PROGESTERONE_CLUSTER_16	0.134293428	-0.893286049	8.92E-10	1.60E-08	32
PID_HIF2PATHWAY	0.1381545	-0.89349152	1.03E-09	1.84E-08	26
HUNSSBERGER_EXERCISE_REGULATED_GENES	0.081572376	-0.87723443	1.08E-09	1.92E-08	231
LUAGING BRAIN_UP	0.049627027	-0.880903449	1.09E-09	1.92E-08	72
HINATA_NFKB_TARGETS_KERATINOCTYE_UP	0.042975413	-0.880346822	1.13E-09	1.98E-08	211
VECHI_GASTRIC_CANCER_EARLY_DN	0.136203183	-0.893340626	1.15E-09	2.01E-08	26
REACTOME_HS_GAG BIOSYNTHESIS	0.153039082	-0.883852124	1.16E-09	2.01E-08	32
FIGUEROA_AML METHYLATION_CLUSTER_3_DN	0.097846735	-0.917678076	1.28E-09	2.21E-08	17
REACTOME_INTERACTION_BETWEEN_L1_AND_ANKYRNINS	0.085609368	-0.90284278	1.29E-09	2.21E-08	29
LIEN_BREAST CARCINOMA_METAPlastic	0.124865876	-0.885661421	1.38E-09	2.36E-08	36
DAWSON_METHYLATED_IN LYMPHOMA_TCL1	0.093984974	-0.875851094	1.40E-09	2.37E-08	93
SENESE HDAC2 TARGETS_DN	0.11420899	-0.925970609	1.41E-09	2.38E-08	15
LI_WILMS_TUMOR	0.126260727	-0.882396643	1.45E-09	2.43E-08	37
MIKKELSEN_MCV6_ICP_WITH_H3K27ME3	0.151613639	-0.901336714	1.47E-09	2.45E-08	14
SMID_BREAST CANCER_RELAPSE_IN_LUNG_UP	0.071510507	-0.871366278	1.49E-09	2.49E-08	175
TONKS_TARGETS_OF_RUNX1_RUNX1T1_FUSION_HSC_UP	0.125551288	-0.884508152	1.53E-09	2.52E-08	31
SHIPP_DLBCL_CURED_VS_FATAL_UP	0.132888799	-0.888952256	1.53E-09	2.52E-08	23
LEE_DOUBLE_POLAR THYMOCYTE	0.12552008	-0.868072753	1.81E-09	2.97E-08	74
YORDY_RECIPROCAL_REGULATION_BY_ETS1_AND_SP100_DN	0.137879547	-0.879959733	1.88E-09	3.06E-08	25
REACTOME_AMINO_ACID_TRANSPORT_ACROSS_THE_PLASMA_MEMBRANE	0.154127377	-0.877332483	1.92E-09	3.11E-08	23
COLIN_PILOCYTIC ASTROCYTOMA_VS GLIOBLASTOMA_UP	0.059844263	-0.964296018	1.96E-09	3.16E-08	20
VALK_AML WITH_11Q23 REARRANGED	0.159535191	-0.866395054	2.07E-09	3.32E-08	41
NAKAMURA_METASTASIS	0.11695991	-0.873778518	2.27E-09	3.63E-08	35
VANHARANTA_UTERINE_FIBROID_UP	0.038712474	-0.859655682	2.28E-09	3.63E-08	311
PHONG_TNF_RESPONSE_NOT_VIA_P38	0.032597867	-0.857023488	2.81E-09	4.45E-08	222
OSWALD_HEMATOPOIETIC STEM CELL_IN_COLLAGEN_GEL_UP	0.126641893	-0.875580699	2.86E-09	4.50E-08	25
AIGNER_ZEB1_TARGETS	0.156465157	-0.871917387	3.14E-09	4.92E-08	17
MURAKAMI_UV_RESPONSE_GHR_DN	0.068083682	-0.874508775	3.19E-09	4.98E-08	46
CHIARADONNA_NEOPLASTIC_TRANSFORMATION_KRAS_CDC25_DN	0.135254617	-0.86527248	3.56E-09	5.52E-08	26
WANG_LSD1_TARGETS_DN	0.126111103	-0.860256399	3.65E-09	5.63E-08	36
SCHAFFER_PRSTATE DEVELOPMENT_12HR_DN	0.048944094	-0.859832924	3.99E-09	6.11E-08	75

NUP98-NSD1 downregulated	p.geomean	stat.mean	p.val	q.val	set.size
SMIRNOV_CIRCULATING_ENDOTHELIOCYTES_IN_CANCER_UP	0.013598759	-0.859883822	4.00E-09	6.11E-08	152
BIOCARTA_CTL4_PATHWAY	0.089962608	-0.887637001	4.19E-09	6.37E-08	18
ULE_SPLICING_VIA_NOVA2	0.133003988	-0.848233813	5.52E-09	8.34E-08	36
REACTOME_NCAM1_INTERACTIONS	0.102148431	-0.860685386	5.53E-09	8.34E-08	30
NEWMAN_ERCC6_TARGETS_DN	0.140021433	-0.860003328	6.11E-09	9.16E-08	19
WNT_SIGNALING	0.150664454	-0.836727122	6.13E-09	9.16E-08	68
LOPES_METHYLATED_IN_COLON_CANCER_UP	0.141172761	-0.857167564	6.18E-09	9.20E-08	20
SHAFFER_IRF4_TARGETS_IN_PLASMA_CELL_VS_MATURE_B_LYMPHOCYTE	0.116532088	-0.839306701	6.39E-09	9.46E-08	65
ELVIDGE_HIF1A_TARGETS_DN	0.104820405	-0.837904651	6.73E-09	9.92E-08	80
KUNINGER_IGF1_VS_PDGFB_TARGETS_UP	0.134994067	-0.83811169	6.85E-09	1.00E-07	53
XU_GHI_AUTOCRINE_TARGETS_DN	0.140975494	-0.829757634	7.52E-09	1.10E-07	122
PID_CD8_TCR_PATHWAY	0.091660242	-0.84106362	7.71E-09	1.12E-07	53
PID_A6B1_A6B4_INTEGRIN_PATHWAY	0.148991369	-0.835504773	7.85E-09	1.14E-07	41
REACTOME_GLUCAGON_TYPE_LIGAND_RECEPTEORS	0.169029095	-0.845265315	8.14E-09	1.17E-07	17
MULLIGHAN_NPM1_SIGNATURE_3_DN	0.080938691	-0.829575393	8.34E-09	1.20E-07	148
SAGIV_CD24_TARGETS_DN	0.085686945	-0.841419965	8.43E-09	1.20E-07	42
CHIANG_LIVER_CANCER_SUBCLASS_CTNNB1_DN	0.042623742	-0.831298159	9.36E-09	1.33E-07	135
LI_WILMS_TUMOR_VS_FETAL_KIDNEY_2_DN	0.092658336	-0.839298761	9.62E-09	1.36E-07	47
CHANDRAN_METASTASIS_DN	0.108787	-0.82124087	1.01E-08	1.42E-07	243
AMIT_SERUM_RESPONSE_120_MCF10A	0.098030703	-0.830114754	1.01E-08	1.42E-07	61
VANTVEER_BREAST_CANCER_ESR1_UP	0.163350885	-0.820260909	1.02E-08	1.43E-07	155
GAL_LEUKEMIC_STEM_CELL_UP	0.137583276	-0.821452953	1.05E-08	1.46E-07	119
MISSAGLIA_REGULATED_BY METHYLATION_UP	0.078051812	-0.823517148	1.13E-08	1.57E-07	112
TURASHVILI_BREAST_LOBULAR_CARCINOMA_VS_LOBULAR_NORMAL_UP	0.122233277	-0.820374575	1.38E-08	1.90E-07	65
LEE_AGING_MUSCLE_DN	0.152598221	-0.820679718	1.41E-08	1.93E-07	40
BONCI_TARGETS_OF_MIR15A_AND_MIR16_1	0.146886272	-0.815332469	1.41E-08	1.93E-07	80
RADMACHER_AML_PROGNOSIS	0.095118603	-0.819552437	1.48E-08	2.01E-07	75
DOANE_RESPONSE_TO_ANDRoGEN_DN	0.126099905	-0.809887208	1.56E-08	2.11E-07	218
JECHLINGER_EPITHELIAL_TO_MESENCHYMAL_TRANSITION_UP	0.084943493	-0.821393596	1.63E-08	2.21E-07	63
LA_MEN1_TARGETS	0.151744731	-0.829487539	1.67E-08	2.25E-07	21
HALMOS_CEBPA_TARGETS_DN	0.133584212	-0.819750788	1.69E-08	2.26E-07	35
WATTEL_AUTONOMOUS_THYROID_ADENOMA_DN	0.120675537	-0.818675378	1.72E-08	2.29E-07	48
KEGG_WNT_SIGNALING_PATHWAY	0.156719966	-0.806989178	1.78E-08	2.36E-07	126
VECHI_GASTRIC_CANCER_ADVANCED_VS_EARLY_UP	0.038945524	-0.814642166	1.85E-08	2.45E-07	134
KEGG_AXON_GUIDANCE	0.123898889	-0.80702801	1.95E-08	2.56E-07	105
GROSS_HYPoxIA_VIA_ElK3_AND_HIF1A_UP	0.073562797	-0.807459626	2.05E-08	2.69E-07	135
OSADA_ASCL1_TARGETS_DN	0.141171755	-0.828935051	2.16E-08	2.82E-07	19
YAO_HOXA10_TARGETS_VIA_PROGESTERONE_UP	0.124121548	-0.808399237	2.17E-08	2.82E-07	63
BROWNE_HCMV_INFECTiON_1HR_UP	0.156896926	-0.807858476	2.19E-08	2.84E-07	45
KUROZUMI_RESPONSE_TO_ONCOCYTIC_VIRUS_AND_CYCLIC_RGD	0.093034714	-0.852970191	2.20E-08	2.84E-07	18
PEDRIOLI_MIR31_TARGETS_DN	0.09256772	-0.80035185	2.23E-08	2.87E-07	339
VART_KSHV_INFECTiON_ANGIOGENIC_MARKERS_UP	0.053151339	-0.807334426	2.25E-08	2.88E-07	134
WINZEN_DEGRADED_VIA_KHSRP	0.060969954	-0.810864636	2.50E-08	3.19E-07	77
KOYAMA_SEMA3B_TARGETS_UP	0.149605037	-0.796559132	2.55E-08	3.24E-07	232
HERNANDEZ_ABERRANT_MITOsiS_BY_DOCETACEL_2NM_UP	0.144774833	-0.799408616	2.78E-08	3.52E-07	67
PLASARI_TGFBI1_TARGETS_10HR_DN	0.048656567	-0.797869275	3.00E-08	3.79E-07	209
PID_INTEGRiN1_PATHWAY	0.0668659671	-0.811088832	3.08E-08	3.87E-07	56
WANG_BARRETTs_ESOPHAGUS_AND_ESOPHAGUS_CANCER_DN	0.143395262	-0.80626092	3.28E-08	4.11E-07	27
TSAI_RESPONSE_TO_RADIATION_THERAPY	0.106030709	-0.811841449	3.36E-08	4.19E-07	31
MCLACHLAN_DENTAL_CARIES_DN	0.125716022	-0.795264961	3.66E-08	4.55E-07	62
ELVIDGE_HYPoxIA_BY_DM0G_UP	0.088364273	-0.792769523	3.68E-08	4.55E-07	117
QI_HYPoxIA	0.116284966	-0.789157805	3.83E-08	4.71E-07	121
PID_VEGFR1_PATHWAY	0.163110651	-0.798759574	3.94E-08	4.84E-07	25
VERRECCchia_RESPONSE_TO_TGFBI1_C2	0.136794166	-0.806001513	4.15E-08	5.07E-07	24
ELVIDGE_HIF1A_AND_HIF2A_TARGETS_DN	0.103199603	-0.790144771	4.19E-08	5.10E-07	91
PEDERSEN_METASTASiS_BY_ERBB2_ISOFORM_1	0.096479069	-0.800777996	4.56E-08	5.52E-07	39
TSENG_IRS1_TARGETS_UP	0.170165388	-0.783075205	4.57E-08	5.52E-07	94
GAViN_FOXp3_TARGETS_CLUSTER_P7	0.118185489	-0.786705933	4.71E-08	5.67E-07	79
AMUNDSON_POOR_SURVIVAL_AFTER_GAMMA_RADIATION_BG	0.137772288	-0.782348028	4.99E-08	5.99E-07	93
LEIN_PONS_MARKERS	0.17003332	-0.782151286	5.03E-08	6.02E-07	68
KRASNOSELs_Ilf3_TARGETS_DN	0.150376748	-0.786246731	5.23E-08	6.23E-07	45
AFFAR_YY1_TARGETS_UP	0.124405155	-0.777589454	5.58E-08	6.62E-07	154
SEKI_INFLAMMATORy_RESPONSE_LPS_UP	0.05211665	-0.790693249	5.64E-08	6.67E-07	70
SHETi_LIVER_CANCER_VS_TXNPi LOSS_PAM3	0.122543631	-0.782683203	6.13E-08	7.23E-07	57
CASPER_LYMPHATIC_VESSELS_DURING_METASTASiS_DN	0.084836921	-0.803602476	6.34E-08	7.44E-07	32
SHEN_SMARCA2_TARGETS_DN	0.086726017	-0.773506481	6.67E-08	7.81E-07	198
SCHAEFFER_PRoSTATE_DEVELOPMENT_48HR_UP	0.105064571	-0.770042299	7.03E-08	8.17E-07	355
PID_TGFBR_PATHWAY	0.153294847	-0.775890207	7.03E-08	8.17E-07	53
KEGG_T_CELL_RECEPtor_SIGNALiNG_PATHWAY	0.093375656	-0.775701036	7.08E-08	8.19E-07	98
CHARAF_BREAST_CANCER_BASAL_VS_MESENCHYMAL_DN	0.143419836	-0.778947303	7.16E-08	8.25E-07	44
BREUHAHN_GROWTH_FACToR_SIGNALiNG_IN_LiVER_CANCER	0.178492991	-0.783739898	7.24E-08	8.32E-07	20
BANDRES_RESPONSE_TO_CARMUSTiN_MGMT_48HR_DN	0.133765939	-0.770834974	7.36E-08	8.42E-07	117
HENDRICKS_SMARCA4_TARGETS_UP	0.13220164	-0.778348929	7.39E-08	8.42E-07	46
ROSS_AML_OF_FAB_M7_TYPE	0.015200539	-0.809541478	7.58E-08	8.62E-07	68
REACTOME_POTASSiUM_CHANNELS	0.126254168	-0.778491358	7.64E-08	8.65E-07	51
KEGG_CYTOKiNE_CYTOKiNE_RECEPtor_INTERACTION	0.037491182	-0.773729471	7.84E-08	8.85E-07	189
SHEDDEN_LUNG_CANCER_GOOD_SURVIVAL_A4	0.118040192	-0.766795307	8.26E-08	9.29E-07	165
LIAO_HAVE_SOXA_BINDING_SITES	0.171332673	-0.772815618	8.72E-08	9.77E-07	34
JIANG_HYPoxIA_NORMAL	0.085620141	-0.761684975	9.97E-08	1.11E-06	287
MCGARVEY_SILENCED_BY_METHYLATION_IN_COLON_CANCER	0.156888356	-0.774633874	1.11E-07	1.23E-06	26
TSENG_IRS1_TARGETS_DN	0.120870391	-0.761256146	1.11E-07	1.24E-06	109
RICKMAN_HEAD_ANd_NECK_CANCER_E	0.147915529	-0.767071477	1.17E-07	1.29E-06	42
LEE_NEURAL_CREST_STEM_CELL_UP	0.129304526	-0.760965619	1.17E-07	1.29E-06	97
PHONG_INF_RESPONSE_VIA_P38_PARTiAL	0.042347823	-0.763369845	1.17E-07	1.29E-06	141
VERRECCchia_EARLY_RESPONSE_TO_TGFb1	0.098962442	-0.764824719	1.37E-07	1.49E-06	57
REACTOME_CELL_JUNCTION_ORGANIZATION	0.144372597	-0.759434651	1.38E-07	1.51E-06	52
REACTOME_CLASS_A1_RHOdOPSiN_LiKE_RECEPtoRs	0.052868366	-0.757921979	1.44E-07	1.57E-06	143
YAO_TEMPORAL_RESPONSE_TO_PROGESTERONE_CLUSTER_2	0.159610749	-0.753757775	1.47E-07	1.60E-06	66
QUINTENS_EMBRYONiC_BRAIN_RESPONSE_TO_ir	0.179787517	-0.751507219	1.50E-07	1.62E-06	74
WANG_HCP_PRoSTATE_CANCER	0.139729981	-0.752140885	1.51E-07	1.63E-06	101
SUNG_METASTASiS_STROMA_UP	0.124437724	-0.753002066	1.52E-07	1.63E-06	101
REACTOME_AMiNE_COMPOUND_SLC_TRANSPORTERS	0.134676577	-0.801056522	1.54E-07	1.65E-06	12
HAN_SATB1_TARGETS_DN	0.083207442	-0.748068796	1.58E-07	1.68E-06	396
WESTON_VEGFA_TARGETS_6HR	0.101411915	-0.763453774	1.68E-07	1.78E-06	45
CUI_TCF21_TARGETS_UP	0.147152518	-0.761376021	1.68E-07	1.78E-06	33
REACTOME_PACKAGING_OF_TELOMERE-ENDS	0.055312236	-0.770099783	1.86E-07	1.97E-06	42
KEGG_HEDGEHOG_SIGNALiNG_PATHWAY	0.169018449	-0.752024151	1.87E-07	1.97E-06	36
KORKOLA_EMBRYONiC_CARCiNOMA_VS_SEMiNOMA_DN	0.174874085	-0.776482486	1.91E-07	2.00E-06	14
REACTOME_MEiOTiC_SYNAPSis	0.090604614	-0.753295062	1.93E-07	2.02E-06	63
GALINDO_IMMUNE_RESPONSE_TO ENTEROTOXiN	0.035631411	-0.75835287	1.94E-07	2.02E-06	82
ZHANG_RESPONSE_TO_IKK_iNHiBiTOR_ANd_TNF_UP	0.013257541	-0.750093802	1.99E-07	2.07E-06	203
DiNG_LUNG_CANCER_MUTATED SIGNIFICANTLY	0.179882599	-0.754962793	2.01E-07	2.07E-06	23
HARRiS_BRAIN_CANCER_PROGENiTORs	0.142161225	-0.759488585	2.13E-07	2.20E-06	27
SMiRN0V_RESPONSE_TO_ir_2HR_UP	0.086187785	-0.751492156	2.26E-07	2.32E-06	49
SCHRAETS_MLL_TARGETS_UP	0.152413472	-0.750552339	2.48E-07	2.54E-06	30
ENGELMANN_CANCER_PROGENiTORs_UP	0.155390182	-0.742407896	2.53E-07	2.59E-06	44

NUP98-NSD1 downregulated	p.geomean	stat.mean	p.val	q.val	set.size
KEGG_ECM_Receptor_Interaction	0.067184911	-0.748444298	2.57E-07	2.61E-06	75
CHARAF_EBreast_Cancer_Luminal_vs_Basal_DN	0.052924584	-0.733361128	2.78E-07	2.82E-06	398
NABA_BaseMembranes	0.110752291	-0.752773253	2.90E-07	2.93E-06	33
HORIUCHI_WTAP_Targets_UP	0.085825209	-0.731730594	2.94E-07	2.97E-06	277
MCBRYAN_PUBERTAL_BREAST_3_4WK_UP	0.111169625	-0.732166675	3.02E-07	3.04E-06	162
BHAT_ESR1_TARGETS_NOT_VIA_AKT1_UP	0.114963553	-0.730863855	3.09E-07	3.09E-06	174
LEI_MYB_TARGETS	0.058409706	-0.729233624	3.29E-07	3.29E-06	286
REACTOME_COLLAGEN_FORMATION	0.089130215	-0.743425192	3.33E-07	3.32E-06	50
KAN_RESPONSE_TO_ARSENIC_TRIoxide	0.083273012	-0.733996525	3.41E-07	3.39E-06	97
MASARWEH_TAMOXIFEN_RESISTANCE_DN	0.137843394	-0.726204998	3.52E-07	3.48E-06	204
SERVITIA_ISLET_HNF1A_TARGETS_DN	0.172365831	-0.729051386	3.55E-07	3.50E-06	65
SENGUPTA_NASOPHARYNGEAL_CARCINOMA_DN	0.077425629	-0.725761554	3.79E-07	3.73E-06	227
PACHER_TARGETS_OF_IGF1_AND_IGF2_UP	0.14356254	-0.737425073	3.86E-07	3.79E-06	29
PID_CD8_TCR_DOWNSTREAM_PATHWAY	0.120817284	-0.730651447	4.14E-07	4.05E-06	52
CHANG_IMMORTALIZED_BY HPV1_DN	0.123660359	-0.730234584	4.22E-07	4.11E-06	51
PID_NFAT_TFPATHWAY	0.125514139	-0.730857956	4.44E-07	4.32E-06	41
MIKKELSEN_MEF_LCP_WITH_H3K27ME3	0.171846339	-0.728881371	4.61E-07	4.46E-06	31
NABA_COLLAGENS	0.085274506	-0.742903066	4.62E-07	4.46E-06	36
LIU_SMARCA4_TARGETS	0.155742305	-0.723829396	4.79E-07	4.61E-06	48
MIKKELSEN_IPS_ICP_WITH_H3K27ME3	0.166290693	-0.734362938	5.16E-07	4.95E-06	22
YANG_BREAST_CANCER_ESR1_BULK_UP	0.205405457	-0.721969439	5.36E-07	5.14E-06	24
CHEN_LVAD_SUPPORT_OF_FAILING_HEART_UP	0.097350715	-0.719622598	5.45E-07	5.20E-06	90
AMIT_EGF_RESPONSE_240_HELA	0.156177373	-0.718926253	5.46E-07	5.20E-06	55
REACTOME_REGULATION_OF_INSULIN_SECRETION	0.185779896	-0.71536792	5.51E-07	5.23E-06	66
ONDER_CDH1_SIGNALING_VIA_CTNNB1	0.115241938	-0.719415324	5.82E-07	5.51E-06	70
KEGG_TIGHT_JUNCTION	0.164044335	-0.711169731	6.21E-07	5.85E-06	98
LI_INDUCED_T_TO_NATURAL_KILLER_DN	0.161530801	-0.711047078	6.22E-07	5.85E-06	108
NING_CHRONIC_OBSTRUCTIVE_PULMONARY_DISEASE_DN	0.150606371	-0.710631514	6.37E-07	5.98E-06	113
REACTOME_INWARDLY_RECTIFYING_K_CHANNELS	0.175466851	-0.725275283	7.17E-07	6.71E-06	18
REACTOME_CHONDROITIN_SULFATE_DERMATAN_SULFATE_METABOLISM	0.151171466	-0.713330186	7.56E-07	7.06E-06	43
NOJIMA_SFPR2_TARGETS_UP	0.116149408	-0.725106783	7.60E-07	7.07E-06	27
HATADA_METRINATED_IN_LUNG_CANCER_UP	0.1184244165	-0.703244837	7.64E-07	7.08E-06	280
BOSCO_TH1_CYTOTOXIC_MODULE	0.078989759	-0.712471407	7.68E-07	7.10E-06	97
LIU_PROSTATE_CANCER_UP	0.184472068	-0.704162135	7.96E-07	7.34E-06	80
BOSCO_ALLERGEN_INDUCED_TH2_ASSOCIATED_MODULE	0.0988157	-0.705275519	8.10E-07	7.45E-06	139
ZHU_CMV_ALL_DN	0.082357125	-0.706361029	8.39E-07	7.70E-06	110
REACTOME_IMMUNOREGULATORY_INTERACTIONS_BETWEEN_A_LYMPHOID_AND_A_NON_LYMPHOID_CELL	0.086054441	-0.71540089	8.43E-07	7.71E-06	56
UEDA_CENTRAL_CLOCK	0.164098326	-0.702972661	8.50E-07	7.75E-06	82
MARTORIATI_MMMD4_TARGETS_FETAL_LIVER_UP	0.16381147	-0.699425291	8.67E-07	7.89E-06	202
FRASOR_RESPONSE_TO_ESTRADIOL_DN	0.144802445	-0.703483774	9.13E-07	8.28E-06	66
LANDEMAINES_LUNG_METASTASIS	0.196666373	-0.714380122	9.21E-07	8.32E-06	17
MAGRANGEAS_MULTIPLE_MYELOMA_IGLL_VS_IGLK_DN	0.208472366	-0.704396642	1.01E-06	9.07E-06	22
REACTOME_AMINO_ACID_AND_OLIGOPEPTIDE_SLC_TRANSPORTERS	0.177263745	-0.703807608	1.02E-06	9.18E-06	32
BEGUM_TARGETS_OF_PAX3_FOXO1_FUSION_DN	0.148787697	-0.705784187	1.02E-06	9.18E-06	38
FRASOR_RESPONSE_TO_ESTRADIOL_UP	0.138338995	-0.709962193	1.07E-06	9.60E-06	31
REACTOME_GLYCOSAMINOGLYCAN_METABOLISM	0.138376671	-0.696784521	1.10E-06	9.83E-06	91
DOANE_BREAST_CANCER_CLASSES_UP	0.176503303	-0.696457152	1.12E-06	9.97E-06	53
ODONNELL_TFRC_TARGETS_UP	0.093861472	-0.691926934	1.13E-06	1.01E-05	332
KEGG_SYSTEMIC_LUPUS_ERYTHEMATOSUS	0.052556123	-0.699483137	1.14E-06	1.01E-05	113
MIKKELSEN_MCV6_ICP_WITH_H3K4ME3_AND_H3K27ME3	0.148056809	-0.715336547	1.15E-06	1.01E-05	20
WESTON_VEGFA_TARGETS_12HR	0.11385221	-0.717628089	1.18E-06	1.04E-05	26
GESERICK_TERT_TARGETS_DN	0.084745291	-0.738237671	1.19E-06	1.04E-05	20
BURTON_ADIPONEGENESIS_8	0.148573206	-0.696973179	1.20E-06	1.05E-05	53
HUANG_FOXA2_TARGETS_DN	0.197382818	-0.697863939	1.20E-06	1.05E-05	28
FRIDMAN_SENESCENCE_UP	0.114504403	-0.693881808	1.36E-06	1.16E-05	70
KANNAN_TP53_TARGETS_UP	0.121413333	-0.691545459	1.23E-06	1.07E-05	146
REACTOME_NEUTRIN1_SIGNALING	0.161781984	-0.692677626	1.25E-06	1.08E-05	68
IZADPANAH_STEM_CELL_ADIPOSE_VS_BONE_DN	0.111376452	-0.693828212	1.29E-06	1.12E-05	85
KUNINGER_IGF1_VS_PDGFRA_TARGETS_DN	0.175852794	-0.695176791	1.31E-06	1.13E-05	38
ABE_VEGFA_TARGETS_30MIN	0.15734614	-0.69020898	1.35E-06	1.16E-05	79
NAKAMURA_ADIPONEGENESIS_LATE_DN	0.148043675	-0.700977986	1.35E-06	1.16E-05	31
CROMER_TUMORIGENESIS_UP	0.114504403	-0.693881808	1.36E-06	1.16E-05	70
CHIANG_LIVER_CANCER_SUBCLASS_CTNNB1_UP	0.121413333	-0.691545459	1.23E-06	1.07E-05	146
PROVENZANI_METASTASIS_DN	0.161781984	-0.692677626	1.25E-06	1.08E-05	68
IGLESIAS_E2F_TARGETS_UP	0.164999773	-0.700041035	1.39E-06	1.18E-05	25
FRIDMAN_IMMORTALIZATION_DN	0.149658824	-0.696433823	1.57E-06	1.31E-05	31
PID_PDGFRA_PATHWAY	0.202943461	-0.690822475	1.71E-06	1.42E-05	21
MENSE_HYPoxIA_UP	0.116693239	-0.684628076	1.73E-06	1.44E-05	92
CHIARADONNA_NEOPLASTIC_TRANSFORMATION_CDC25_DN	0.1318504	-0.681545733	1.73E-06	1.44E-05	118
KEGG_TGF_BETA_SIGNALING_PATHWAY	0.176843304	-0.680296971	1.81E-06	1.50E-05	85
IZADPANAH_STEM_CELL_ADIPOSE_VS_BONE_DN	0.183843554	-0.687026608	1.86E-06	1.53E-05	30
ZHANG_TARGETS_OF_EWSR1_FL1_FUSION	0.166754502	-0.679721434	1.88E-06	1.54E-05	80
ZHANG_ANTIVIRAL_RESPONSE_TO_RIBAVIRIN_DN	0.14124136	-0.684669163	1.92E-06	1.58E-05	46
CHIANG_LIVER_CANCER_SUBCLASS_INTERFERON_DN	0.177454946	-0.684202509	1.94E-06	1.59E-05	36
LINDGREN_BLADDER_CANCER_HIGH_RECURRENCE	0.139764944	-0.684935451	1.96E-06	1.60E-05	45
REACTOME_CELL_CELL_JUNCTION_ORGANIZATION	0.177874486	-0.684652825	2.00E-06	1.63E-05	33
PID_REG_GR_PATHWAY	0.183725001	-0.676844433	2.04E-06	1.66E-05	67
LUAGING_BRAIN_DN	0.195577516	-0.674015883	2.06E-06	1.67E-05	128
BERTUCCI_MEDULLARY_VS_DUCTAL_BREAST_CANCER_DN	0.133219776	-0.675731829	2.07E-06	1.67E-05	141
KONDO_PROSTATE_CANCER_WITH_H3K27ME3	0.137975519	-0.679109355	2.13E-06	1.72E-05	70
RIZ_ERYTHROID_DIFFERENTIATION_12HR	0.192632897	-0.679273367	2.17E-06	1.75E-05	35
WESTON_VEGFA_TARGETS	0.103446094	-0.677784638	2.30E-06	1.85E-05	86
GU_PDEF_TARGETS_UP	0.100520879	-0.680592716	2.34E-06	1.88E-05	62
YAO_TEMPORAL_RESPONSE_TO_PROGESTERONE_CLUSTER_5	0.149621296	-0.690947183	2.36E-06	1.89E-05	22
KUROZUMI_RESPONSE_TO_ONCOCYTIC_VIRUS	0.08831689	-0.690093932	2.40E-06	1.92E-05	40
VALK_AML_CLUSTER_9	0.119785231	-0.69584196	2.42E-06	1.93E-05	35
SMID_BREAST_CANCER_LUMINAL_B_UP	0.180316028	-0.669124505	2.47E-06	1.96E-05	120
KEGG_GLYCINE_SERINE_AND_THREONINE_METABOLISM	0.192550254	-0.673517804	2.83E-06	2.24E-05	28
BRACHAT_RESPONSE_TO_CAMPTOTHECIN_UP	0.19281925	-0.672522566	2.99E-06	2.36E-05	25
ST_JNK_MAPK_PATHWAY	0.205585809	-0.667058359	3.00E-06	2.36E-05	38
GILDEA_METASTASIS	0.161717057	-0.677539508	3.16E-06	2.49E-05	26
ROZANOV_MMPI14_TARGETS_SUBSET	0.138618019	-0.678523046	3.30E-06	2.59E-05	26
GROSS_HYPoxIA_VIA_ELG3_DN	0.080146153	-0.663433071	3.31E-06	2.59E-05	145
PID_FGF_PATHWAY	0.185294123	-0.66368989	3.36E-06	2.62E-05	47
KIM_BIPOLAR_DISORDER_OLIGODENDROCYTE_DENSITY_CORR_DN	0.169467766	-0.665085611	3.42E-06	2.66E-05	47
REACTOME_INHIBITION_OF_VOLTAGE_GATED_CA2_CHANNELS_VIA_GBETA_GAMMA_SUBUNITS	0.1905242	-0.679687686	3.46E-06	2.68E-05	15
KEGG_NATURAL_KILLER_CELL_MEDIATED_CYTOTOXICITY	0.113169641	-0.662488906	3.49E-06	2.70E-05	102
GAZDA_DIAMOND_BLACKFAN_ANEMIA_MYELOID_UP	0.192938848	-0.665961639	3.51E-06	2.71E-05	30
GROSS_HYPoxIA_VIA_HIF1A_DN	0.130309052	-0.660355129	3.56E-06	2.75E-05	97
KYNG_DNA_DAMAGE_DN	0.14689162	-0.656999592	3.63E-06	2.79E-05	180
AMIT_EGF_RESPONSE_480_HELA	0.104279771	-0.658357073	3.67E-06	2.82E-05	151
WEINMANN_ADAPTATION_TO_HYPoxIA_DN	0.125814785	-0.673284997	3.70E-06	2.83E-05	34

NUP98-NSD1 downregulated	p.geomean	stat.mean	p.val	q.val	set.size
KHETCHOUMIAN_TRIM24_TARGETS_UP	0.109185068	-0.670564111	3.71E-06	2.83E-05	45
ZHU_CMV_ALL_UP	0.109698698	-0.658042141	3.78E-06	2.88E-05	114
HAMAI_APOPTOSIS_VIA_TRAIL_DN	0.13203462	-0.654949092	4.01E-06	3.04E-05	152
VART_KSHV_INFECTON_ANGIOGENIC_MARKERS_DN	0.101382955	-0.657620365	4.04E-06	3.06E-05	109
REACTOME_SEMA4D_INDUCED_CELL_MIGRATION_AND_GROWTH_CONE_COLLAPSE	0.206805051	-0.66208523	4.06E-06	3.07E-05	23
VANTVEER_BREAST_CANCER_METASTASIS_UP	0.20940987	-0.655413645	4.19E-06	3.16E-05	46
ST_DIFFERENTIATION_PATHWAY_IN_PC12_CELLS	0.197821446	-0.656605049	4.25E-06	3.20E-05	41
BIOCARTA_TCR_PATHWAY	0.182257266	-0.657308255	4.28E-06	3.21E-05	44
COLIN_PILOCYTIC_ASTROCYTOMA_VS_GILOBLASTOMA_DN	0.170551369	-0.665149991	4.30E-06	3.22E-05	26
BROWNE_HCMV_INFECTON_24HR_UP	0.188193222	-0.649619335	4.53E-06	3.38E-05	135
DURAND_STROMA_NS_UP	0.140443858	-0.649776872	4.74E-06	3.53E-05	134
PID_GLYPLICAN_1PATHWAY	0.186926785	-0.661647324	4.76E-06	3.54E-05	22
WU_SILENCED_BY METHYLATION_IN_BLADDER_CANCER	0.159059343	-0.656979912	4.83E-06	3.58E-05	45
PID_LIS1_PATHWAY	0.224271948	-0.653676871	4.91E-06	3.63E-05	26
NAKAMURA_ADIPOCENESIS_EARLY_DN	0.128570351	-0.66508573	4.91E-06	3.63E-05	30
GROSS_EIK3_TARGETS_UP	0.200776661	-0.656213127	5.37E-06	3.96E-05	22
MCCLUNG_CREB1_TARGETS_DN	0.223451901	-0.645955832	5.47E-06	4.03E-05	49
COWLING_MYCN_TARGETS	0.196833539	-0.652874492	5.50E-06	4.04E-05	28
PAPAPYRIDONOS_UNSTABLE_ATEROSCLEROTIC_PLAQUE_DN	0.162021127	-0.655781932	5.55E-06	4.06E-05	31
MIYAGAWA_TARGETS_OF_EWSR1ETS_FUSIONS_UP	0.136098634	-0.643478786	5.56E-06	4.06E-05	219
ZHU_CMV_8_HR_DN	0.188308645	-0.646642681	5.80E-06	4.23E-05	47
REACTOME_L1CAM_INTERACTIONS	0.175409704	-0.643111564	6.07E-06	4.42E-05	70
REACTOME_NEUROTRANSMITTER_RECEPATOR_BINDING_AND_DOWNSTREAM_TRANSMISSION_IN_THE_POSTSYNAPTIC_CELL	0.192196829	-0.640957337	6.22E-06	4.51E-05	85
BONOME_ONCER_Poor_SURVIVAL_UP	0.178295127	-0.650556434	6.25E-06	4.53E-05	29
REACTOME_HEPARAN_SULFATE_HEPARIN_HS_GAG_METABOLISM	0.170394341	-0.646277479	6.45E-06	4.65E-05	44
LEIN_CEREBELLUM_MARKERS	0.195930519	-0.641166273	6.46E-06	4.65E-05	61
FARMER_BREAST_CANCER_APOCRINE_VS_LUMINAL	0.142604809	-0.634991131	7.10E-06	5.11E-05	277
JACKSON_DNM1_TARGETS_UP	0.151061095	-0.638327918	7.30E-06	5.24E-05	74
LEIN_CHOROIDPLEXUS_MARKERS	0.153880491	-0.637579564	7.58E-06	5.43E-05	73
WANG_PROSTATE_CANCER_ANDRGEN_INDEPENDENT	0.191563475	-0.635449119	7.86E-06	5.61E-05	56
LI_CISPLATIN_RESISTANCE_DN	0.151229372	-0.653877185	8.06E-06	5.74E-05	23
BOQUEST_STEM_CELL_DN	0.068239391	-0.633199981	8.12E-06	5.77E-05	196
ROZANOV_MMPI14_TARGETS_UP	0.128181421	-0.630585421	8.36E-06	5.93E-05	225
GARGALOVIC_RESPONSE_TO_OXIDIZED_PHOSPHOLIPIDS_TURQUOISE_UP	0.137737451	-0.634718547	8.40E-06	5.95E-05	74
VANDESLUUS_COMM1_TARGETS_GROUP_3_UP	0.173601372	-0.631439095	8.98E-06	6.34E-05	64
ZHAN_MULTIPLE_MYELOMA_CD2_UP	0.161805908	-0.635089857	9.05E-06	6.38E-05	43
NABA_ECM_AFFILIATED	0.105408384	-0.631304218	9.31E-06	6.55E-05	105
ICHIBA_GRAFT_VERSUS_HOST_DISEASE_D7_DN	0.183862153	-0.637744644	9.35E-06	6.56E-05	28
BHAT_ESR1_TARGETS_VIA_AKT1_DN	0.17416359	-0.628984194	9.40E-06	6.58E-05	73
PID_AVB3_INTEGRIN_PATHWAY	0.114912491	-0.63331264	9.43E-06	6.59E-05	69
DELPEUCH_FOXO3_TARGETS_UP	0.172614434	-0.6288766	9.82E-06	6.85E-05	62
PID_BMP_PATHWAY	0.199579506	-0.630171625	1.02E-05	7.11E-05	35
HOFMANN_MYELODYSPLASTIC_SYNDROM_LOW_RISK_DN	0.187929639	-0.634832965	1.02E-05	7.11E-05	23
YAO_TEMPORAL_RESPONSE_TO_PROGESTERONE_CLUSTER_6	0.156919837	-0.627611777	1.03E-05	7.14E-05	66
THEODOROU_MAMMARY_TUMORGENESIS	0.180669052	-0.641829109	1.06E-05	7.30E-05	18
VEGNASUBRAMANIAN_PROSTATE_CANCER	0.187604152	-0.623686027	1.09E-05	7.49E-05	81
SUZUKI_RESPONSE_TO_TSA_AND_DECITABINE_1A	0.183450761	-0.63973311	1.09E-05	7.52E-05	19
RAO_BOUND_BY_SALL4	0.172749982	-0.620446542	1.12E-05	7.72E-05	184
ASGHARADEH_NEUROBLASTOMA_Poor_SURVIVAL_DN	0.221382021	-0.624332544	1.13E-05	7.73E-05	37
LEE_CALORIE_RESTRICTION_MUSCLE_UP	0.199348176	-0.627321674	1.13E-05	7.76E-05	32
MCCLUNG_COCAINE_REWARD_SD	0.197807898	-0.61975892	1.22E-05	8.30E-05	67
BRACHAT_RESPONSE_TO_METHOTREXATE_UP	0.193762186	-0.628674846	1.23E-05	8.37E-05	23
LINDVALL_IMMORTALIZED_BY_TERT_DN	0.137380411	-0.623443847	1.24E-05	8.44E-05	67
WIERNEGA_STAT5A_TARGETS_UP	0.071684743	-0.618619485	1.28E-05	8.66E-05	198
REACTOME_STRIATED_MUSCLE_CONTRACTION	0.190990029	-0.631939599	1.30E-05	8.79E-05	18
BROWNE_HCMV_INFECTON_30MIN_UP	0.175733599	-0.622633138	1.30E-05	8.79E-05	39
ZHANG_TLX_TARGETS_UP	0.137678274	-0.618990748	1.31E-05	8.80E-05	96
MIKKELSEN_ES_ICP_WITH_H3K27ME3	0.211737625	-0.630372426	1.32E-05	8.88E-05	17
LANDIS_ERBB2_BREAST_TUMORS_324_UP	0.197179552	-0.613073247	1.41E-05	9.47E-05	135
KIM_GERMINAL_CENTER_T_HELPER_DN	0.174023072	-0.628666034	1.41E-05	9.47E-05	20
WANG_SMARCE1_TARGETS_DN	0.127132404	-0.611918144	1.44E-05	9.65E-05	324
YAUCH_HEDGEHOG_SIGNALING_PARACRINE_DN	0.159456634	-0.612227883	1.45E-05	9.70E-05	168
BRIDEAU_IMPRINTED_GENES	0.196305195	-0.616393735	1.48E-05	9.84E-05	47
CUI_TCF21_TARGETS_2_UP	0.060837624	-0.610247744	1.57E-05	0.000104443	367
SEITZ_NEOPLASTIC_TRANSFORMATION_BY_BP_DELETION_DN	0.208785704	-0.616430772	1.62E-05	0.000107333	27
LINDVALL_IMMORTALIZED_BY_TERT_UP	0.163600995	-0.613189448	1.63E-05	0.000107685	64
HELLER_SILENCED_BY METHYLATION_UP	0.056791216	-0.609627858	1.66E-05	0.000109614	246
TURASHVILI_BREAST_LOBULAR_CARCINOMA_VS_DUCTAL_NORMAL_DN	0.186777172	-0.610662291	1.71E-05	0.000112357	57
TIAN_TNF_SIGNALING_VIA_NFKB	0.080263773	-0.638230065	1.71E-05	0.000112543	25
JECHLINGER_EPITHELIAL_TO_MESENCHYMAL_TRANSITION_DN	0.136053586	-0.613244787	1.72E-05	0.000112543	58
BURTON_ADIPogenesis_PEAK_AT_2HR	0.062354798	-0.626518242	1.74E-05	0.000113561	49
APRELIKHOV_BRCA2_TARGETS	0.211554119	-0.609830608	1.74E-05	0.000113561	44
KIM_WT1_TARGETS_12HR_UP	0.129506528	-0.606141895	1.81E-05	0.000117908	142
BIOCARTA_NO1_PATHWAY	0.199593994	-0.61515427	1.84E-05	0.0001195	24
REACTOME_CHEMOKINE_RECEPATORS_BIND_CHEMOKINES	0.101904928	-0.620220399	1.93E-05	0.00012541	39
BIOCARTA_NKT_PATHWAY	0.147454746	-0.622060006	1.98E-05	0.000128581	24
REACTOME_G_PROTEIN_ACTIVATION	0.223556666	-0.611892388	2.01E-05	0.000129719	19
RODRIGUES_THYROID_CARCINOMA_DN	0.167223697	-0.604502612	2.01E-05	0.000129764	73
SHETH_LIVER_CANCER_VS_TXNIPLOSS_PAM2	0.153313506	-0.601018943	2.09E-05	0.000134831	135
ZWANG_CLASS_3_TRANSIENTLY_INDUCED_BY_EGF	0.043476103	-0.603170179	2.11E-05	0.000135789	201
IWANAGA_CARCINOGENESIS_BY_KRAS_UP	0.2159495	-0.598395303	2.16E-05	0.000138473	138
SARRIO_EPITHELIAL_MESENCHYMAL_TRANSITION_DN	0.108264343	-0.600950359	2.18E-05	0.000139473	132
SENESE_HDAC1_AND_HDAC2_TARGETS_UP	0.112735274	-0.599300104	2.19E-05	0.000139863	201
KARLSSON_TGFBI_TARGETS_DN	0.17715189	-0.597927237	2.20E-05	0.000140111	197
ACEVEDO_LIVER_CANCER_WITH_H3K27ME3_DN	0.123507494	-0.599206871	2.22E-05	0.000141461	144
LEIN_NEURON_MARKERS	0.203304278	-0.600994648	2.23E-05	0.000141652	51
CREIGHTON_ENDOCRINE_THERAPY_RESISTANCE_5	0.103234688	-0.596630159	2.28E-05	0.000144446	414
MIDORIKAWA_AMPLIFIED_IN_LIVER_CANCER	0.229054034	-0.59941064	2.29E-05	0.000145057	43
REACTOME_CELL_CELL_COMMUNICATION	0.195316045	-0.597740318	2.30E-05	0.000145391	90
PID_IL23_PATHWAY	0.173308426	-0.606295413	2.40E-05	0.000151093	29
SENESE_HDAC1_TARGETS_UP	0.08538674	-0.594913818	2.41E-05	0.000151841	406
HUMMERICH_SKIN_CANCER_PROGRESSION_DN	0.184998893	-0.596419392	2.42E-05	0.000151841	91
KONDO_PROSTATE_CANCER_HCP_WITH_H3K27ME3	0.218517264	-0.596945046	2.42E-05	0.000151841	62
MARTORIATI_MDM4_TARGETS_NEUROEPITHELIUM_UP	0.194758082	-0.594500574	2.43E-05	0.000152176	154
SCHAETS_MLL_TARGETS_DN	0.193191328	-0.605778112	2.54E-05	0.000158815	22
RUTELLA_RESPONSE_TO_CSF2RB_AND_IL4_UP	0.115484372	-0.591320715	2.68E-05	0.000167117	323
PID_IL2_2PATHWAY	0.122690119	-0.598598216	2.70E-05	0.000168225	59
HOFMANN_MYELODYSPLASTIC_SYNDROM_RISK_UP	0.20450077	-0.602830892	2.71E-05	0.00016833	19
DELACROIX_XARG_BOUND_MEF	0.124980347	-0.589676518	2.76E-05	0.000171209	321
YAO_TEMPORAL_RESPONSE_TO_PROGESTERONE_CLUSTER_1	0.148678208	-0.594297757	2.89E-05	0.000178828	61
PASQUALUCCI_LYMPHOMA_BY_GC_STAGE_UP	0.169461695	-0.587238743	2.97E-05	0.000183521	254
HU_GENOTOXIC_DAMAGE_24HR	0.197353144	-0.59411977	3.09E-05	0.000190428	32
LI_CISPLATIN_RESISTANCE_UP	0.186705069	-0.601378618	3.10E-05	0.000190864	23
BENPORATH_NOS_TARGETS	0.18568685	-0.585765173	3.16E-05	0.00019387	155
KAAB_HEART_ATRium_VS_VENTRICLE_DN	0.171530469	-0.584782598	3.21E-05	0.000196722	231
VERHAAK_GILOBLASTOMA_CLASSICAL	0.158647725	-0.585772805	3.22E-05	0.000196722	142

NUP98-NSD1 downregulated	p.geomean	stat.mean	p.val	q.val	set.size
GENTILE_UV_RESPONSE_CLUSTER_D8	0.223216939	-0.588709099	3.26E-05	0.000199094	38
MCMURRAY_TP53_HRAS_COOPERATION_RESPONSE_DN	0.198098984	-0.588011537	3.30E-05	0.000200876	53
BROCKE_APOPTOSIS_REVERSED_BY_JL6	0.104255598	-0.584429344	3.54E-05	0.000215355	139
HUANG_DASATINIB_RESISTANCE_UP	0.139558428	-0.586279992	3.56E-05	0.000215978	76
NAKAYAMA_FRA2_TARGETS	0.19624279	-0.585539546	3.69E-05	0.000223387	41
REACTOME_REGULATION_OF_HYPOXIA_INDUCIBLE_FACTOR_HIF_BY_OXYGEN	0.225581849	-0.589312744	3.84E-05	0.000232071	21
KEGG_ALDOSTERONE_REGULATED_SODIUM_REABSORPTION	0.220301457	-0.584077909	3.90E-05	0.000235234	31
VANHARANTA_UTERINE_FIBROID_DN	0.182514855	-0.581121748	4.00E-05	0.000240836	60
BURTON_ADIPOGENESIS_9	0.155093123	-0.578961313	4.19E-05	0.000252113	88
NELSON_RESPONSE_TO_ANDROGEN_UP	0.211051453	-0.576993509	4.22E-05	0.000253168	78
LEE_LIVER_CANCER_MYC_E2F1_UP	0.177604276	-0.580962761	4.25E-05	0.000254749	49
REACTOME_SIGNALING_BY_BMP	0.207284408	-0.588166663	4.31E-05	0.000257366	20
CHIBA_RESPONSE_TO_TSA	0.185596738	-0.578641426	4.43E-05	0.000264158	45
LI_AMPLIFIED_IN_LUNG_CANCER	0.078735349	-0.577802239	4.56E-05	0.000271816	157
WANG_TNF_TARGETS	0.170065394	-0.593390753	4.58E-05	0.000272034	18
HOFLZEL_NF1_TARGETS_DN	0.100635605	-0.577288143	4.73E-05	0.00028083	84
UZONYI_RESPONSE_TO_LEUKOTRIENE_AND_THROMBIN	0.089764569	-0.59269965	4.77E-05	0.000282618	36
KIM_GLI3_TARGETS_UP	0.088741325	-0.580758014	4.82E-05	0.000285088	73
ACEVEDO_LIVER_CANCER_WITH_H3K27ME3_UP	0.110156645	-0.572493816	4.85E-05	0.000285998	182
MCMURRAY_TP53_HRAS_COOPERATION_RESPONSE_UP	0.204481027	-0.581360492	5.12E-05	0.000301704	21
MCCLUNG_COCAIN_REWARD_4WK	0.211040502	-0.570197959	5.22E-05	0.000306819	61
GOLDRATH_IMMUNE_MEMORY	0.219912614	-0.568923922	5.34E-05	0.000313544	64
HILLION_HMGAI_TARGETS	0.171904124	-0.569553626	5.48E-05	0.000320904	75
BENPORATH_OCT4_TARGETS	0.185080305	-0.565462685	5.51E-05	0.000321996	254
FARMER_BREAST_CANCER_BASAL_VS_LULMINAL	0.184298674	-0.564725506	5.59E-05	0.000326042	292
HELLER_HDAC_TARGETS_UP	0.133973446	-0.565078747	5.60E-05	0.000326042	287
PID_IL12_STAT4_PATHWAY	0.17587618	-0.575047956	5.68E-05	0.000330492	32
RIGGINS_TAMOXIFEN_RESISTANCE_DN	0.146799953	-0.565340279	5.71E-05	0.00033123	197
REACTOME_BASIGIN_INTERACTIONS	0.244969257	-0.571716729	5.80E-05	0.000336274	21
BOYAULT_LIVER_CANCER_SUBCLASS_G123_DN	0.242053395	-0.566574015	5.83E-05	0.000337165	42
PRAMOONJAGO_SOX4_TARGETS_UP	0.097838127	-0.575630007	5.85E-05	0.000338087	50
BIOCARTA_INFLAMM_PATHWAY	0.169919231	-0.577025613	6.41E-05	0.000369359	21
ZHENG_GLIOMA_PLASTICITY_DN	0.181834164	-0.564795858	6.65E-05	0.000382391	50
LEEAGING_NEOCortex_DN	0.238190719	-0.560731278	6.66E-05	0.000382419	61
VIETOR_IFRD1_TARGETS	0.228145229	-0.570774665	6.87E-05	0.000394116	19
FARMER_BREAST_CANCER_CLUSTER_1	0.075570683	-0.580708889	6.97E-05	0.000398831	39
HERNANDEZ_MITOTIC_ARREST_BY_DOCETAXEL_2_UP	0.184488043	-0.56192492	6.98E-05	0.000399063	54
GROSS_ELK3_TARGETS_DN	0.18538748	-0.566635032	7.13E-05	0.000406766	30
KRIGE_AMINO_ACID_DEPRIVATION	0.132892479	-0.573862261	7.21E-05	0.000410316	28
MASSARWEH_RESPONSE_TO_ESTRADIOL	0.215428297	-0.558759353	7.40E-05	0.000420335	50
AZARE_NEOPLASTIC_TRANSFORMATION_BY_STAT3_UP	0.161901698	-0.556948080	7.57E-05	0.000429641	98
SCHLINGEMANN_SKIN_CARCINOGENESIS_TPA_DN	0.217817201	-0.563059146	7.67E-05	0.000434223	25
PID_NEPHRIN_NEPH1_PATHWAY	0.237267106	-0.55826592	7.84E-05	0.000443221	30
ZHANG_TLX_TARGETS_36HR_UP	0.10456789	-0.554514174	7.92E-05	0.000447215	203
KIM_RESPONSE_TO_TSA_AND_DECITABINE_UP	0.157021825	-0.554573779	8.14E-05	0.0004583	92
rickman_tumor_differentiated_well_vs_moderately_dn	0.197553814	-0.554264015	8.15E-05	0.000458305	70
MCBRYAN_PUBERTAL_BREAST_6_7WK_DN	0.159431382	-0.555611767	8.34E-05	0.000464831	69
ZHOU_TNF_SIGNALING_30MIN	0.179135415	-0.555121203	8.37E-05	0.000469211	53
ALONSO_METASTASIS_EMT_UP	0.190881582	-0.559345633	8.53E-05	0.000477334	32
BROWNE_HCMV_INFECTION_10HR_UP	0.208666127	-0.549339449	8.95E-05	0.000499926	90
RICKMAN_HEAD_AND_NECK_CANCER_F	0.173089934	-0.560261395	8.98E-05	0.000500243	31
FARDIN_HYPOXIA_11	0.192929814	-0.559107215	8.99E-05	0.000500243	31
APPIERTO_RESPONSE_TO_FENRETINIDE_UP	0.231106513	-0.552801176	9.00E-05	0.000500243	34
LI_INDUCED_T_TO_NATURAL_KILLER_UP	0.043770261	-0.550336125	9.06E-05	0.000502537	293
KANG_GIST_WITH_PDGFRa_UP	0.176186797	-0.555899283	9.08E-05	0.000502989	41
ALONSO_METASTASIS_UP	0.08641966	-0.550149434	9.29E-05	0.000513604	185
HAHTOLA_SEZARY_SYNDROM_DN	0.149062042	-0.559235598	9.32E-05	0.00051434	37
RASHI_RESPONSE_TO_Ionizing_Radiation_2	0.116440928	-0.54911633	9.55E-05	0.000525792	114
VANTVEER_BREAST_CANCER_BRCA1_DN	0.231237227	-0.55039404	9.61E-05	0.000528567	35
CHEN_LVAD_SUPPORT_OF_FAILING_HEART_DN	0.163107215	-0.55730562	9.94E-05	0.000545722	32
PID_BETA_CATEPIN_NUC_PATHWAY	0.227266886	-0.545688052	0.000100291	0.000549643	64
HOEBEKE_LYMPHOID_STEM_CELL_DN	0.152999441	-0.546423627	0.000105519	0.000577313	85
MAHADEVAN_IMATINIB_RESISTANCE_UP	0.221812638	-0.561651501	0.000106372	0.000580997	14
KEGG_MAPK_SIGNALING_PATHWAY	0.160190805	-0.541749327	0.000106755	0.000581299	219
BRUECKNER_TARGETS_OF_MIRLET7A3_UP	0.192300851	-0.543894241	0.000106788	0.000581299	89
ZIRN_TRETINOIN_RESPONSE_UP	0.185899685	-0.557032623	0.000107934	0.000586553	21
WILLERT_WNT_SIGNALING	0.245710219	-0.54889585	0.000108494	0.000588601	21
REACTOME_TGF_BETA_RECECTOR_SIGNALING_ACTIVATES_SMADS	0.234183743	-0.549559949	0.000108849	0.000589539	24
PID_P13K_PLC_TRK_PATHWAY	0.235450274	-0.54284041	0.000116524	0.000630047	34
SCHAEFFER_PROSTATE_DEVELOPMENT_12HR_UP	0.157783669	-0.541400319	0.000117047	0.00063182	89
JIANG_AGING_CEREBRAL_Cortex_DN	0.207555987	-0.542526926	0.000118932	0.00064092	50
SMID_BREAST_CANCER_RELAPSE_IN_BONE_UP	0.209836409	-0.540781822	0.000119238	0.000641501	61
BURTON_ADIPOGENESIS_1	0.112435027	-0.553246565	0.000122325	0.000657013	32
SAMOLS_TARGETS_OF_KHSV_MIRNAS_DN	0.217726361	-0.538983334	0.000125903	0.000675108	54
WHITFIELD_CELL_CYCLE_M_G1	0.169231379	-0.536592012	0.00012751	0.00068259	137
CUI_GLUCOSE_DEPRIVATION	0.218505747	-0.537743284	0.000128099	0.000684607	54
PID_RELIN_PATHWAY	0.253277293	-0.540159016	0.000129432	0.000690589	26
OUELLET_CULTURED_OVARIAN_CANCER_INVASIVE_VS_LMP_DN	0.250985287	-0.540202323	0.000131266	0.000699218	24
TURASHVILI_BREAST_DUCTAL_CARCINOMA_VS_DUCTAL_NORMAL_DN	0.126620901	-0.535927179	0.000133988	0.000712544	130
REACTOME_MEIOSIS	0.080941912	-0.538801844	0.000136793	0.000726264	98
COULOUARN_TEMPORAL_TGFB1_SIGNATURE_UP	0.189565307	-0.533470341	0.000139681	0.000740376	93
LEE_CALORIE_RESTRICTION_NEOCortex_DN	0.230953291	-0.532832377	0.00014079	0.000745032	74
HOFFMANN_SMALL_PRE_BII_TO_IMMATURE_B_LYMPHOCYTE_DN	0.212768653	-0.535509448	0.000141695	0.00074815	46
GUENTHER_GROWTH_SPHERICAL_VS_ADHERENT_UP	0.230538878	-0.547814369	0.000141879	0.00074815	15
ZHANG_Proliferating_vs_quiescent	0.184719155	-0.535948074	0.000142074	0.00074815	51
GAUSSMANN_MLL_AF4_FUSION_TARGETS_G_UP	0.222085944	-0.530570521	0.00014332	0.000753483	168
ZHU_CMV_8_HR_UP	0.156306415	-0.538105385	0.000143968	0.000755656	43
GARGALOVIC_RESPONSE_TO_OXIDIZED_PHOSPHOLIPIDS_BLUE_UP	0.078978927	-0.534329397	0.00014643	0.000767331	125
LI_WILMS_TUMOR_VS_FETAL_KIDNEY_1_UP	0.127687534	-0.531367616	0.000149373	0.000781483	171
SHETH_LIVER_Cancer_Vs_TXNPLOSS_PAMS	0.224817757	-0.531084894	0.000150105	0.000780403	67
LAIHOCOLRECTAL_CANCER_SERRATED_UP	0.156210152	-0.531715089	0.000150354	0.000784077	106
CORRE_MULTIPLE_MYELOMA_DN	0.188864804	-0.534074218	0.000152311	0.000792999	51
SMIRNOV_RESPONSE_TO_IR_6HR_UP	0.180353306	-0.528389275	0.000153546	0.000791839	158
SCHLESINGER_H3K27ME3_IN_NORMAL_AND METHYLATED_IN_CANCER	0.197742517	-0.536769359	0.000153793	0.000798139	11
ZHENG_OXP3_TARGETS_UP	0.215134922	-0.535566916	0.000157731	0.000817264	26
BILBAN_B_CLL_LPL_UP	0.199973807	-0.5295262	0.000161862	0.00083669	59
AMIT_EGF_RESPONSE_120_MCF10A	0.193659535	-0.532003403	0.000161999	0.00083669	42
DACOSTA_ERCC3_ALLELE_XPCS_VS_TTD_UP	0.20232262	-0.539657882	0.000163012	0.00084058	24
MCDOWELL_ACUTE_LUNG_INJURY_UP	0.107329901	-0.540954547	0.00016744	0.000862034	43
AMIT_EGF_RESPONSE_60_HELA	0.152193814	-0.532111579	0.000170484	0.000876309	43
MISHRA_CARCINOMA_ASSOCIATED_FIBROBLAST_UP	0.172633191	-0.543401704	0.000173453	0.000890151	20
REACTOME_INHIBITION_OF_INSULIN_SECRETION_BY_ADRENALINE_NORADRENALINE	0.235463289	-0.533759569	0.000176313	0.000903394	19
HUMMERICH_SKIN_CANCER_PROGRESSION_UP	0.172235958	-0.526308034	0.000176761	0.000904009	75
DORN_ADENOVIRUS_INFECTION_12HR_DN	0.175442595	-0.530544314	0.000177188	0.000904009	33
DAIRKEE_CANCER_PRONE_RESPONSE_BPA_E2	0.188022113	-0.524322576	0.000177491	0.000904009	107
RAY_TUMORIGENESIS_BY_ERBB2_CDC25A_DN	0.207731132	-0.522918811	0.000177553	0.000904009	135

NUP98-NSD1 downregulated	p.geomean	stat.mean	p.val	q.val	set.size
WIEDERSCHAIN_TARGETS_OF_BMI1_AND_PCGF2	0.178351035	-0.527539841	0.0001808	0.00091909	49
ZAMORA_NOS2_TARGETS_DN	0.19221938	-0.524200657	0.000181717	0.000922299	85
BEGUM_TARGETS_OF_PAX3_FOXO1_FUSION_UP	0.166894385	-0.528219891	0.000182468	0.000924505	48
DACOSTA_UV_RESPONSE_VIA_ERCC3_COMMON_UP	0.189913459	-0.523658041	0.000182724	0.000924505	73
HOEGERKORP_CD44_TARGETS_DIRECT_UP	0.212420553	-0.532134202	0.000185617	0.000937669	22
REACTOME_DOWNREGULATION_OF_TGF_BETA_RECECTOR_SIGNALING	0.250194185	-0.528444443	0.000187658	0.000946498	21
KOHOUTEK_CCNT1_TARGETS	0.228641714	-0.523293769	0.000193795	0.000975928	39
PETROVA_PROX1_TARGETS_DN	0.210372351	-0.521770075	0.000196869	0.000989716	59
BOQUEST_STEM_CELL_CULTURED_VS_FRESH_DN	0.170675008	-0.547347835	0.000197146	0.000989716	17
PAL_PRMT5_TARGETS_DN	0.221191109	-0.52776399	0.000208572	0.001045452	21
SU_PANCREAS	0.240476088	-0.519377427	0.000214901	0.001075507	36
MIKKELSEN_MEF_ICP_WITH_H3K27ME3	0.155844627	-0.518138044	0.000216893	0.001083791	99
NAKAMURA_METASTASIS_MODEL_DN	0.225136071	-0.518761628	0.000223519	0.001115175	38
KERLEY_RESPONSE_TO_CISPLATIN_UP	0.20515808	-0.51702254	0.0002236659	0.001178914	41
PIDNECTIN_PATHWAY	0.230481539	-0.517593122	0.000238493	0.001186217	29
FERREIRA_EWINGS_SARCOMA_UNSTABLE_VS_STABLE_DN	0.230696699	-0.511851421	0.000241378	0.001198721	83
KORKOLA_EMBRYONIC_CARCINOMA_VS_SEMINOMA_UP	0.231391052	-0.526209093	0.000243318	0.001206499	16
KEGG_MELANOGENESIS	0.224366461	-0.511017469	0.000247517	0.001225435	76
REACTOME_EXTRACELLULAR_MATRIX_ORGANIZATION	0.12002682	-0.51745287	0.000249583	0.001228828	68
AMIT_SERUM_RESPONSE_240_MCF10A	0.198417349	-0.51399073	0.00025217	0.001244654	48
REACTOME_ADHERENS_JUNCTIONS_INTERACTIONS	0.222515846	-0.524250043	0.000255254	0.001257952	18
RIGGINS_TAMOXIFEN_RESISTANCE_UP	0.207178012	-0.511531647	0.00025998	0.001278703	54
POS_HISTAMINE_RESPONSE_NETWORK	0.246616767	-0.513215834	0.000260257	0.001278703	28
CORRE_MULTIPLE_MYELOMA_UP	0.17603256	-0.513667025	0.000261	0.001280407	49
PID_SHP2_PATHWAY	0.216014809	-0.509415281	0.000269678	0.001320971	53
SCIAN_INVERSED_TARGETS_OF_TP53_AND_TP73_DN	0.203708383	-0.513174934	0.000273605	0.001338179	30
REACTOME_FORMATION_OF_TUBULIN_FOLDING_INTERMEDIATES_BY_CCT_TRIC	0.229404424	-0.519049471	0.000274352	0.001338821	18
PID_SYNDECAN_1_PATHWAY	0.156668665	-0.516257656	0.000274566	0.001338821	41
FERRARI_RESPONSE_TO_FENRETINIDE_UP	0.154461309	-0.524331215	0.000275588	0.001341775	20
BILD_E2F3_ONCOGENIC_SIGNATURE	0.200927262	-0.504472228	0.000281338	0.001367711	214
PID_ECADHERIN_KERATINOCTYE_PATHWAY	0.246436322	-0.515409762	0.000285363	0.001385192	18
KEGG_TYPE_II_DIABETES_MELLITUS	0.225148197	-0.508242939	0.000286332	0.001387805	38
SWEET_KRAS_TARGETS_DN	0.225082456	-0.506074631	0.000292348	0.001411857	55
KEGG_THYROID_CANCER	0.262508213	-0.507749084	0.000292467	0.001411857	27
CAIRO_HEPATOBLASTOMA_CLASSES_DN	0.149430643	-0.503932849	0.000292606	0.001411857	172
REACTOME_TRANSPORT_OF_INORGANIC_CATIONS_ANIONS_AND_AMINO_ACIDS_OLIGOPEPTIDES	0.230026215	-0.504488363	0.000296767	0.001429796	63
GENTILE_UV_RESPONSE_CLUSTER_D2	0.220427345	-0.506852616	0.000299565	0.001441128	39
RORIE_TARGETS_OF_EWSR1_FLI1_FUSION_UP	0.231146584	-0.509398821	0.000303	0.001455484	25
DUTERTRE_ESTRADIOL_RESPONSE_6HR_DN	0.216827294	-0.502628495	0.00031052	0.001489391	80
WAMUNYOKOLI_OVARIAN_CANCER_GRADES_1_2_DN	0.209586966	-0.503052701	0.000318464	0.001525224	58
FIGUEROA_AML METHYLATION_CLUSTER_1_DN	0.245613572	-0.502980997	0.000323827	0.001484613	40
PID_SMAD2_3NUCLEAR_PATHWAY	0.227379248	-0.500406074	0.000324985	0.001515185	73
KIM_WT1_TARGETS_8HR_UP	0.119895736	-0.500066735	0.000330928	0.001577895	148
KOBAYASHI_EGFR_SIGNALING_24HR_UP	0.183839374	-0.500201359	0.000333565	0.001588126	87
YAO_TEMPORAL_RESPONSE_TO_PROGESTERONE_CLUSTER_0	0.220793918	-0.500147978	0.000334825	0.001591777	67
VALK_AML_CLUSTER_16	0.082203836	-0.574861016	0.000336317	0.001596518	25
REACTOME_INTEGRATION_OF_ENERGY_METABOLISM	0.248347905	-0.497819814	0.000338275	0.001603454	90
RICKMAN_METASTASIS_DN	0.095669063	-0.49891229	0.000340167	0.001608872	233
HUANG_FOXA2_TARGETS_UP	0.227027406	-0.501957201	0.000340415	0.001608872	36
POOLA_INVASIVE_BREAST_CANCER_DN	0.199785065	-0.498438806	0.000342303	0.001615432	94
REACTOME_THROMBOXANE_SIGNALLING_THROUGH_TP_RECEPTOR	0.265578032	-0.503564040	0.000348199	0.001640857	19
LEE_LIVER_CANCER_SURVIVAL_UP	0.227073571	-0.495879861	0.000353543	0.001663613	123
KOYAMA_SEMA3B_TARGETS_DN	0.221991001	-0.494539859	0.000355062	0.001668325	345
LEE_NEURAL_CREST_STEM_CELL_DN	0.211286737	-0.49700311	0.000355818	0.00166945	93
SCHOEN_NFKB_SIGNALING	0.11037685	-0.517502542	0.000359625	0.001684863	31
WARTERS_IR_RESPONSE_5GY	0.218159574	-0.499358706	0.000362405	0.001695427	42
ROVERS1_GLIOMA_LOH_REGIONS	0.255730316	-0.498951218	0.000366123	0.001710341	31
BROWNE_HCMV_INFECTION_12HR_DN	0.2041407342	-0.494686209	0.000374208	0.001745584	85
KYNG_DNA_DAMAGE_BY_4NQO_OR_UP	0.242435554	-0.494690725	0.000379467	0.001767559	59
SANSOM_APC_TARGETS_DN	0.093535206	-0.493073635	0.000383618	0.00178432	305
VANDESLUIS_NORMAL_EMBRYOS_DN	0.184367939	-0.506619182	0.000387902	0.001801652	22
WEINMANN_ADAPTATION_TO_HYPOXIA_UP	0.208782474	-0.501162493	0.000404764	0.001877266	25
GUO_HEX_TARGETS_DN	0.159214875	-0.494724298	0.000410218	0.001898933	60
KEGG_CELL_ADHESION_MOLECULES_CAMS	0.141406016	-0.491806091	0.000414079	0.001914965	107
PID_S1P_META_PATHWAY	0.248589108	-0.497124948	0.00042174	0.001947604	20
BROWNE_HCMV_INFECTION_16HR_DN	0.201088563	-0.490806659	0.000422568	0.00194864	68
ENGELMANN_CANCER_PROGENITORS_DN	0.195649859	-0.49140818	0.000426461	0.00196379	59
TONKS_TARGETS_OF_RUNX1_RUNX1T1_FUSION_SUSTAINED_IN_ERYTHROCYTE_UP	0.190358546	-0.494305649	0.000430157	0.001977989	42
LEE_AGING_CEREBELLUM_DN	0.224603379	-0.489443453	0.00043367	0.001991305	62
BOYLAN_MULTIPLE_MYELOMA_C_UP	0.268117993	-0.489110194	0.000437218	0.002004598	43
GUENTHER_GROWTH_SPHERICAL_VS_ADHERENT_DN	0.208163078	-0.496629866	0.000437807	0.002004598	26
HENDRICKS_SMARCA4_TARGETS_DN	0.202742135	-0.492831939	0.000441646	0.00201931	43
BIOCARTA_IL12_PATHWAY	0.228258908	-0.496969177	0.000445192	0.002032646	20
MATTIOLI_MULTIPLE_MYELOMA_WITH_14Q32_TRANSLOCATIONS	0.193267918	-0.49443927	0.000451582	0.002056096	35
MARKY_RB1_CHRONIC_LOF_DN	0.158231808	-0.498113761	0.000451602	0.002056096	99
YAGI_AML_WITH_INV_16_TRANSLOCATION	0.117182839	-0.485860521	0.000459299	0.002088193	360
JISON_SICKLE_CELL_DISEASE_DN	0.136665262	-0.484573348	0.00048042	0.002181146	177
NING_CHRONIC_OBSSTRUCTIVE_PULMONARY_DISEASE_UP	0.180528347	-0.483493034	0.000487249	0.002209045	143
IKEDA_MIR1_TARGETS_UP	0.222282485	-0.485442573	0.000491369	0.002224598	52
KEGG_PROXIMAL_TUBULE_BICARBONATE_RECLAMATION	0.259004978	-0.491194326	0.000499032	0.002256128	17
ST_T_CELL_SIGNAL_TRANSDUCTION	0.220906531	-0.484722875	0.000510045	0.002302693	43
HOUQUE_METHYLATED_IN_CANCER	0.229713371	-0.4827252	0.000533353	0.002404557	44
CHIANG_LIVER_CANCER_SUBCLASS_POLYSOMY7_DN	0.261672092	-0.485739859	0.000535939	0.002412846	21
LE_EGR2_TARGETS_DN	0.211100812	-0.479671255	0.000539519	0.002424719	94
PID_INTEGRIN3_PATHWAY	0.106703556	-0.49646366	0.000540078	0.002424749	37
URS_ADIPOCYTE_DIFFERENTIATION_DN	0.197904246	-0.489343491	0.000543844	0.002437566	27
HUPER_BREAST_BASAL_VS_LUMINAL_DN	0.195557852	-0.483882484	0.00054445	0.002437566	43
IVANOVSKA_MIR106B_TARGETS	0.257256208	-0.478307983	0.000547914	0.002449679	88
REACTOME_MEIOtic_RECOMBINATION	0.055704478	-0.487741121	0.000551193	0.002460927	72
ZHU_CMV_24_HR_UP	0.159312376	-0.479633589	0.00055542	0.002475073	92
REACTOME_NEF_MEDiates_DOWN_MODULATION_OF_CELL_SURFACE_RECEPTEORS_BY_RECRUITING_THEM_TO_CLATHRIN_ADAPTERS	0.243654841	-0.487675934	0.00055895	0.002475073	20
WORSCHECHE_TUMOR_REJECTION_UP	0.164025975	-0.483949988	0.000570464	0.002534465	49
PLASARI_TGFBI1_SIGNALING_VIA_NFIC_10HR_UP	0.22217362	-0.485786696	0.000570804	0.002534465	38
SANSOM_WNT_PATHWAY_REQUIRE_MYC	0.251839489	-0.47810106	0.000581992	0.002580592	45
GHANDHI_DIRECT_IRRADIATION_UP	0.092917911	-0.4807647	0.000614106	0.00271925	83
PID_AP1_PATHWAY	0.185473018	-0.475930267	0.000624306	0.002760628	61
BROWNE_HCMV_INFECTION_24HR_DN	0.143707968	-0.474044452	0.00063187	0.002790256	132
GAUSSMANN_MLL_AF4_FUSION_TARGETS_A_DN	0.231872937	-0.473037393	0.00063617	0.002803585	74
WOTTON_RUNX_TARGETS_UP	0.237896839	-0.485784967	0.000636626	0.002803585	16
REACTOME_CREB_PHOSPHORYLATION_THROUGH_THE_ACTIVATION_OF_RAS	0.270503814	-0.474936292	0.000672643	0.002958161	22
BROWNE_HCMV_INFECTION_8HR_UP	0.205625095	-0.470355353	0.000675468	0.002966544	94
LEE_METASTASIS_AND_ALTERNATIVE_SPLICING_UP	0.236358599	-0.47041389	0.000677072	0.002969548	66
WOTTON_RUNX_TARGETS_DN	0.245282792	-0.474836413	0.000688851	0.003017112	24
REACTOME_ACTIVATION_OF_KAINATE_RECEPTEORS_UPON GLUTAMATE_BINDING	0.266832157	-0.473054462	0.000695517	0.003042182	24
EBAUER_MYOGENIC_TARGETS_OF_PAX3_FOXO1_FUSION	0.237160945	-0.472070615	0.000701149	0.003062665	35
BAEELDE_DIABETIC_NEPHROPATHY_UP	0.181546686	-0.470638601	0.000708964	0.003092614	71

NUP98-NSD1 downregulated	p.geomean	stat.mean	p.val	q.val	set.size
SAGIV_CD24_TARGETS_UP	0.26980011	-0.472907327	0.000713031	0.003106159	21
MACLACHLAN_BRCA1_TARGETS_UP	0.239310164	-0.475879162	0.000724955	0.003153846	20
REACTOME_MUSCLE_CONTRACTION	0.223563843	-0.471116219	0.000728507	0.003160791	35
WILCOX_RESPONSE_TO_PROGESTERONE_DN	0.188055819	-0.470503936	0.000728509	0.003160791	57
DASU_16_SIGNALING_SCAR_UP	0.247147625	-0.470235564	0.000738879	0.00319848	29
CERVERA_SDHB_TARGETS_1_UP	0.16152251	-0.468794679	0.000739178	0.00319848	84
GARGALOVIC_RESPONSE_TO_OXIDIZED_PHOSPHOLIPIDS_MAGENTA_UP	0.189209407	-0.477476395	0.000747127	0.003228547	26
SHEDDEN_LUNG_CANCER_GOOD_SURVIVAL_A12	0.193242307	-0.464253313	0.000751892	0.003244797	238
SCHURINGA_STATSA_TARGETS_UP	0.151888034	-0.481756218	0.000792396	0.003415028	21
MAHAJAN_RESPONSE_TO_I1A_UP	0.180249804	-0.465871003	0.000794678	0.003418218	65
REACTOME_REGULATION_OF_INSULIN_SECRETION_BY_GLUCAGON_LIKE_PEPTIDE1	0.266210106	-0.466114908	0.000795255	0.003418218	31
WANG METHYLBATED_IN_BREAST_CANCER	0.171505495	-0.471504362	0.000810401	0.003478687	33
RIZ_ERYTHROID_DIFFERENTIATION_APOLBEC2	0.237227274	-0.471637547	0.000819762	0.003514198	20
ACEVEDO_LIVER_CANCER_WITH_H3K9ME3_UP	0.190637638	-0.463200525	0.000827428	0.003542357	77
KOKKINAKIS_METHIONINE_DEPRIVATION_96HR_UP	0.200606069	-0.461564949	0.00082996	0.003548493	113
rickman_head_and_neck_cancer_b	0.194759291	-0.475850136	0.000840769	0.003589949	27
SHIPP_DLBC1_VS_FOLLICULAR LYMPHOMA_DN	0.231936036	-0.462903765	0.000862731	0.003678857	41
REACTOME_O_LINKED_GLYCOSYLATION_OF_MUCINS	0.271973708	-0.460931365	0.000870349	0.003706446	36
DIRMEIER_LMP1_RESPONSE_LATE_DN	0.213859634	-0.467931616	0.000872057	0.003708825	30
GRADE_COLON_AND_RECTAL_CANCER_DN	0.235474226	-0.457466393	0.000909549	0.003863189	85
MIKKELSEN_IPS_HCP_WITH_H3_UNMETHYLATED	0.223438819	-0.461984188	0.000921389	0.003908337	35
COLDREN_GEFITINIB_RESISTANCE_DN	0.178954532	-0.455642735	0.000937617	0.003971952	172
REACTOME_FGFR_LIGAND_BINDING_AND_ACTIVATION	0.229623446	-0.482981958	0.000942544	0.003987593	10
HERNANDEZMITOTIC_ARREST_BY_DOCETAXEL_1_DN	0.223951529	-0.460749876	0.000946703	0.003999945	36
LANDIS_BREAST_CANCER_PROGRESSION_UP	0.264350453	-0.4575257	0.000949149	0.004005036	39
RIZKI_TUMOR_INVASIVENESS_3D_UP	0.236415067	-0.453387983	0.000966441	0.004072677	176
EBAUER_TARGETS_OF_PAX3_FOXO1_FUSION_UP	0.194831591	-0.453805315	0.000968905	0.00407774	158
WINTER_HYPoxIA_METAGENE	0.085438462	-0.454283737	0.000999635	0.004201591	213
KANG_IMMORTALIZED_BY_TERT_UP	0.208898129	-0.454587411	0.001004332	0.004212573	69
LINDGREN_BLADDER_CANCER_CLUSTER_2A_DN	0.179900242	-0.453258778	0.001004858	0.004212573	135
BORCZUK_MALIGNANT_MESOTHELIOMA_DN	0.218226233	-0.453095304	0.001007516	0.004218237	85
PID_WNT_NONCANONICAL_PATHWAY	0.269352564	-0.454856346	0.001022222	0.004274265	31
REACTOME_SHC_MEDIATED CASCADE	0.252349607	-0.46202679	0.001034625	0.004320528	16
BIOCARTA_AKT_PATHWAY	0.264698043	-0.457047633	0.001041552	0.004343836	22
REACTOME_TRANSPORT_OF_GLUCOSE_AND_OTHER_SUGARS_BILE_SALTS_AND_ORGANIC_ACIDS_METALIONS_AND_AMINE_COMPOUNDS	0.197556927	-0.454825851	0.00104443	0.004350222	54
WESTON_VEGFA_TARGETS_3HR	0.184657599	-0.453257464	0.001079552	0.004490715	59
GERHOLD_ADIPOGENESIS_DN	0.178945132	-0.453228746	0.001085114	0.004508041	59
PID_I4L_2PATHWAY	0.201476054	-0.451833355	0.001096546	0.004549678	56
SIG_PIP3_SIGNALING_IN_CARDIAC_MYOCYTES	0.267432009	-0.448994988	0.001101621	0.004564868	63
BIOCARTA_CYTOKINE_PATHWAY	0.211821214	-0.469358207	0.001109075	0.004589866	12
HERNANDEZ_ABERRANT_MITOSIS_BY_DOCETACEL_2NM_DN	0.249121742	-0.455589098	0.001114034	0.004604483	22
KLEIN_PRIMARY_EFFUSION_LYMPHOMA_DN	0.161842684	-0.453279985	0.00111637	0.004604824	56
MARTINEZ_RESPONSE_TO_TRABECTEDIN_UP	0.209163832	-0.449657205	0.001123902	0.004633405	66
CHEN_HOXAS5_TARGETS_9HR_UP	0.04944108	-0.449691025	0.0011373	0.004682659	214
IWANAGA_CARCINOGENESIS_BY_KRAS_PTEN_DN	0.180586383	-0.445878805	0.001139858	0.004687212	295
rickman_tumor_differentiated_well_vs_poorly_up	0.19508027	-0.44604889	0.001155301	0.00474467	225
TIAN_TNF_SIGNALING_NOT_VIA_NFKB	0.15231981	-0.464133146	0.001172471	0.004809068	21
ZHU_CMV_24_HR_DN	0.126354085	-0.448136049	0.001221505	0.005003831	79
REACTOME_GENERATION_OF_SECOND_MESSENGER_MOLECULES	0.172694472	-0.453467203	0.001228067	0.005024336	26
FALVELLA_SMOKERS_WITH_LUNG_CANCER	0.230330129	-0.444703287	0.001234869	0.005045768	67
DAZARD_UV_RESPONSE_CLUSTER_G2	0.140000598	-0.457890563	0.001239809	0.005059537	26
ZHAN_MULTIPLE_MYELOMA_MS_DN	0.277208543	-0.444612671	0.001250858	0.005091894	41
NAKAMURA_CANCER_MICROENVIRONMENT_UP	0.230207722	-0.460121375	0.001288487	0.005244939	13
REACTOME_PREFOLDIN_MEDIATED_TRANSFER_OF_SUBSTRATE_TO_CCT_TRIC	0.236980806	-0.450792607	0.001301369	0.005289975	24
GOZGIT_ESR1_TARGETS_UP	0.199101443	-0.441376475	0.001302289	0.005289975	115
LUI_THYROID_CANCER_CLUSTER_2	0.2254187	-0.444534855	0.001308442	0.005295766	39
HANN_RESISTANCE_TO_BCL2_INHIBITOR_DN	0.245002558	-0.445790993	0.001308996	0.005295766	34
PID_TCR_PATHWAY	0.171530136	-0.446424056	0.001310534	0.005295766	66
BILANCES_SERUM_AND_RAPAMYCIN_SENSITIVE_GENES	0.035878205	-0.471386445	0.001310817	0.005295766	67
KEGG_PROSTATE_CANCER	0.264905274	-0.440353353	0.001323408	0.005338738	82
SHAFFER_IRF4_TARGETS_IN_ACTIVATED_DENDRITIC_CELL	0.243595959	-0.441996598	0.001324761	0.005338738	63
REACTOME_TRAFFICKING_OF_AMPA_RECEPATORS	0.274322396	-0.446467089	0.001340512	0.005395475	19
PID_HEDGEHOG_2PATHWAY	0.28115196	-0.446612154	0.001351626	0.005434346	18
SEITZ_NEOPLASTIC_TRANSFORMATION_BY_8P_DELETION_UP	0.155841811	-0.443892888	0.001354086	0.005436555	59
BILANCES_SERUM_SENSITIVE_VIA_TS1	0.271387521	-0.449779471	0.001357673	0.005444184	14
LEE_METASTASIS_AND_ALTERNATIVE_SPLICING_DN	0.282479251	-0.440700876	0.001366143	0.005471352	38
BROWNE_HCMV_INFECTON_4HR_UP	0.18409798	-0.443887222	0.001376746	0.005506986	44
REACTOME_COMPLEMENT CASCADE	0.183703854	-0.455094193	0.001413139	0.005645559	19
DACOSTA_ERCC3_ALLELE_XPCs_VS_TTD_DN	0.244695037	-0.443552071	0.001425315	0.005687165	28
REACTOME_NEGATIVE_REGULATION_OF_FGFR_SIGNALING	0.266653937	-0.441773491	0.00143517	0.005719418	24
MEISSNER BRAIN_HCP_WITH_H3K27ME3	0.125126049	-0.439171713	0.001455593	0.005793655	112
PID_TRKR_PATHWAY	0.277350744	-0.436361544	0.001472861	0.005854455	56
PEDRIOLI_MIR31_TARGETS_UP	0.237246748	-0.435005951	0.001474496	0.005854455	149
HUTTMANN_B_CLL_POOR_SURVIVAL_UP	0.15531157	-0.434190101	0.001512159	0.005996621	250
PID_EPHA_FWDPATHWAY	0.249607201	-0.437953367	0.00157749	0.006248021	28
HILLION_HMGAI1B_TARGETS	0.180411485	-0.433219351	0.00162527	0.006429377	81
REACTOME_ADP_SIGNALLING_THROUGH_P2RY12	0.269464992	-0.438086384	0.001664698	0.006577288	17
STOSSI_RESPONSE_TO_ESTRADIOL	0.237542855	-0.434732435	0.001689666	0.006667783	33
PID_P13KCI_AKT_PATHWAY	0.273229358	-0.431771915	0.001698792	0.006695607	35
BOYLAN_MULTIPLE_MYELOMA_C_DN	0.241192619	-0.431038645	0.001707967	0.006722034	53
TAVOR_CEBPA_TARGETS_DN	0.236466105	-0.4345128	0.001709662	0.006722034	30
CREIGHTON_ENDOCRINE_THERAPY_RESISTANCE_4	0.239457796	-0.427852432	0.001711791	0.006722215	253
MIKKELSEN_ES_HCP_WITH_H3_UNMETHYLATED	0.254119522	-0.432773945	0.001741909	0.006832178	29
DORSEY_GAB2_TARGETS	0.216931096	-0.435745717	0.001760317	0.006896	23
KANG_GLI3_TARGETS	0.269241205	-0.440644016	0.001774498	0.006943127	12
SMID_BREAST_CANCER_LUMINAL_A_UP	0.184245014	-0.432964729	0.001776902	0.006944114	54
REACTOME_TIGHT_JUNCTION_INTERACTIONS	0.282589464	-0.434619122	0.001802343	0.007035022	15
DOANE_BREAST_CANCER_ESR1_DN	0.228888878	-0.434994279	0.001807358	0.007046076	24
DEBIASI_APOPTOSIS_BY_REVIRUS_INFECTON_UP	0.074215903	-0.425682461	0.00183848	0.007154442	298
ZHANG_ANTIVIRAL_RESPONSE_TO_RIBAVIRIN_UP	0.234394948	-0.432317759	0.001839587	0.007154442	24
LABBE_TGFb1_TARGETS_DN	0.227165669	-0.424843105	0.001913701	0.007433726	75
POMEROY_MEDULLOBLASTOMA_PROGNOSIS_UP	0.282373468	-0.425078353	0.001936431	0.007512978	40
SEKI_INFAMMATORY_RESPONSE_LPS_DN	0.257209317	-0.431454134	0.001953352	0.007565644	18
DOANE_BREAST_CANCER_CLASSES_DN	0.271175744	-0.426341129	0.001954692	0.007565644	31
YANG_BREAST_CANCER_ESR1_UP	0.280239768	-0.425796412	0.001960051	0.007577301	30
LINDSTEDT_DENDRITIC_CELL_MATURATION_A	0.146720314	-0.427469979	0.00197631	0.007628315	62
PID_FOXO_PATHWAY	0.263946311	-0.424350558	0.001979774	0.007628315	48
REACTOME_SIGNALING_BY_TGF_BETA_RECEPTOR_COMPLEX	0.259802311	-0.423305972	0.001984919	0.007645964	59
LEIN_OLIGODENDROCYTE_MARKERS	0.260692429	-0.423139268	0.001987296	0.007645996	61
REACTOME_DEPOSITION_OF_NEW_CENPA_CONTAINING_NUCLEOSOMES_AT_THE_CENTROMERE	0.081337684	-0.430854349	0.002033576	0.007814741	58
DACOSTA_UV_RESPONSE_VIA_ERCC3_TTD_DN	0.199446193	-0.421539329	0.00204505	0.007849492	81
RICKMAN_METASTASIS_UP	0.153936369	-0.420065101	0.002025127	0.007864022	326
SESTO_RESPONSE_TO_UV_C8	0.268483138	-0.420688274	0.002064904	0.00790689	68
BRUINS_UVC_RESPONSE_VIA_TP53_GROUP_D	0.233261185	-0.418975998	0.00208257	0.007965091	215
GROSS_HYPoxIA_VIA_ELK3_UP	0.191746205	-0.419326303	0.002092841	0.007994889	195
BOHN_PRIMARY_IMMUNODEFICIENCY_SYNDROM_UP	0.246064911	-0.422177132	0.002097612	0.008003655	46

NUP98-NSD1 downregulated	p.geomean	stat.mean	p.val	q.val	set.size
PID_NCADHERIN_PATHWAY	0.272454561	-0.422915888	0.002101819	0.008010238	30
REACTOME_PI_3K CASCADE	0.268253546	-0.421213234	0.002108277	0.008025377	42
KEGG_NEUROACTIVE_LIGAND_RECECTOR_INTERACTION	0.194054912	-0.420077725	0.002114824	0.008040815	117
SHAFFER_IRF4_TARGETS_IN_ACTIVATED_B LYMPHOCYTE	0.223937749	-0.420274475	0.002145185	0.008146655	78
LU_EZH2 TARGETS_DN	0.172368242	-0.417377998	0.002159454	0.008191206	352
YAMASHITA_METHYLATED_IN_PROSTATE_CANCER	0.029411645	-0.423615665	0.002194738	0.008315276	36
KEGG_O GLYCAN BIOSYNTHESIS	0.291719488	-0.420813152	0.002216317	0.008387189	23
KAYO_AGING_MUSCLE_UP	0.243933463	-0.415676838	0.002238243	0.008460244	185
KEGG_PRION_DISEASES	0.22517513	-0.423266554	0.002247154	0.008483991	30
PLASARI_TGFb1_SIGNALING_VIA_NFIC_10HR_DN	0.240164689	-0.424030144	0.002259542	0.008502795	23
WONG_ENDOMETRIUM_CANCER_UP	0.18515853	-0.44023354	0.00226796	0.008542562	14
BANDRES_RESPONSE_TO_CARMUSTINE_WITHOUT_MGMT_48HR_DN	0.276515751	-0.418764855	0.002280766	0.008580782	28
TAYLOR METHYLATED_IN_ACUTE_LYMPHOBLASTIC_LEUKEMIA	0.271371026	-0.416282991	0.002287522	0.008596183	65
NADLER_OBESITY_UP	0.109750475	-0.423535925	0.002314768	0.008688453	58
GENTILE_UV_HIGH_DOSE_DN	0.134341958	-0.413994752	0.002348174	0.008803607	295
ZHONG_SECRETOME_OF_LUNG_CANCER_AND_MACROPHAGE	0.181580977	-0.417027559	0.002361137	0.008841938	72
BIOCARTA_VEGF_PATHWAY	0.276455272	-0.416745429	0.002395682	0.008960905	29
KEGG_JAK_STAT_SIGNALING_PATHWAY	0.216909363	-0.413294993	0.002411708	0.00901041	113
JEPSEN_SMRT_TARGETS	0.272849527	-0.416144952	0.002452652	0.009151127	26
LIN_NPAS4_TARGETS_UP	0.263328297	-0.411536023	0.002455042	0.009151127	141
REACTOME_SEMAPHORIN_INTERACTIONS	0.241384883	-0.412771744	0.002513496	0.009357858	58
NIKOLSKY_BREAST_CANCER_8Q12_Q22_AMPLICON	0.192192952	-0.411886877	0.002516301	0.009357858	98
PID_ALK1_PATHWAY	0.282642635	-0.415083519	0.002526775	0.009385994	25
MANTOVANI_NFKB_TARGETS_UP	0.211375378	-0.416034654	0.002530567	0.009389275	38
KEGG_PRIMARY_IMMUNODEFICIENCY	0.186625677	-0.41732731	0.002536929	0.009402074	34
KYNG_DNA_DAMAGE_BY_GAMMA_RADIATION	0.293764499	-0.410277605	0.00255182	0.009446418	71
BOCHKIS_FOXA2_TARGETS	0.227447638	-0.408864627	0.002570397	0.009485315	355
REACTOME_SPHINGOLIPID_DE_NOVO_BIOSYNTHESIS	0.297134341	-0.413041225	0.002570584	0.009485315	27
BLUM_RESPONSE_TO_SALIRASIB_UP	0.103195854	-0.41051937	0.002571143	0.009485315	233
WIERENGA_STAT5A_TARGETS_GROUP2	0.174073784	-0.413775584	0.002615367	0.009637449	54
MCBRYAN_PUBERTAL_TGFb1_TARGETS_UP	0.139057738	-0.409680438	0.002647375	0.00974427	155
HOLLEMAN_VINCRISTINE_RESISTANCE_B_ALL_UP	0.290553939	-0.410664264	0.00265211	0.009750852	36
GRUETZMANN_PANCREATIC_CANCER_UP	0.093145937	-0.408132697	0.002679992	0.009841883	339
LEE_AGING_CEREBELLUM_UP	0.196048798	-0.409180157	0.002725193	0.009996504	74
PID_AUDISS_2PATHWAY	0.266590894	-0.409156996	0.002733191	0.010014313	44
LIEN_BREAST_CARCINOMA_METAPLASTIC_VS_DUCTAL_DN	0.254468304	-0.407594771	0.002736253	0.010014313	76
ONDER_CDH1_TARGETS_1_UP	0.258029542	-0.406514133	0.002743706	0.010030217	125
JAZAG_TGFb1_SIGNALING_VIA_SMAD4_UP	0.281601116	-0.406350297	0.002763863	0.010092476	88
LENAOUR_DENDRITIC_CELL_MATURATION_UP	0.179744379	-0.406423542	0.00285855	0.010426441	104
MIKKELSEN_MEf_ICP_WITH_H3K4ME3_AND_H3K27ME3	0.234314638	-0.416066257	0.002864108	0.010434922	19
KEGG_VIRAL_MYOCARDITIS	0.182803981	-0.406489464	0.002873805	0.010458449	57
SESTO_RESPONSE_TO_UV_CO	0.136713843	-0.408742996	0.002883298	0.010481178	100
SWEET_LUNG_CANCER_KRAS_UP	0.081570178	-0.404143707	0.002903838	0.010543971	436
FIRESTEIN_PROLIFERATION	0.247118042	-0.402504717	0.002955097	0.010718038	150
ST_ADRENERGIC	0.285353755	-0.406539497	0.002978546	0.010790961	28
GENTILE_UV_LOW_DOSE_UP	0.241216652	-0.408390314	0.002985239	0.010830806	26
MIKKELSEN_ES_ICP_WITH_H3K4ME3_AND_H3K27ME3	0.221402186	-0.404167797	0.00299755	0.010835487	71
PID_NOTCH_PATHWAY	0.286742293	-0.403173719	0.003012014	0.010875593	55
CROONQUIST_STROMAL_STIMULATION_UP	0.116118707	-0.411843022	0.003030022	0.010928394	49
NIKOLSKY_BREAST_CANCER_16P13_AMPLICON	0.152584228	-0.404086457	0.003043736	0.010965604	104
GERHOLD_ADIPOGENESIS_UP	0.241300394	-0.404396424	0.003068231	0.011041529	45
YAN_ESCAPE_FROM_ANOKIS	0.252848115	-0.408528879	0.003122815	0.01122544	21
REACTOME_ACTIVATION_OF_NMDA_RECEPTOR_UPON GLUTAMATE_BINDING_AND_POSTSYNAPTIC_EVENTS	0.286686163	-0.403949841	0.003136516	0.011249639	27
REACTOME_POST_NMDA_RECEPTOR_ACTIVATION_EVENTS	0.286686163	-0.403949841	0.003136516	0.011249639	27
SCHAFFER_SOX9_TARGETS_IN_PROSTATE_DEVELOPMENT_DN	0.26161002	-0.402775353	0.003163215	0.011332805	40
TOMLINS_PRSTOMA_CANCER_DN	0.228360856	-0.404203536	0.003178275	0.011374137	37
NATSUME_RESPONSE_TO_INTERFERON_BETA_UP	0.246100813	-0.40090722	0.003188163	0.011386134	64
BASSO_CD40_SIGNALING_UP	0.080172963	-0.403631397	0.003188682	0.011386134	97
CHIBA_RESPONSE_TO_TSAs_UP	0.21802378	-0.403524081	0.003214199	0.011464569	43
TAVAZOIE_METASTASIS	0.207083083	-0.400811177	0.003281852	0.011692955	72
MODY_HIPPOCAMPUS_POSTNATAL	0.280587505	-0.399183402	0.003287534	0.011700285	52
CHANGOLKAR_H2AFY_TARGETS_UP	0.274831264	-0.399601593	0.003330387	0.011839746	43
HAN_JNK_SIGNALING_UP	0.29609557	-0.401007869	0.003343801	0.011874357	32
REACTOME_THE_ROLE_OF_NEF_IN_HIV1_REPLICATION_AND_DISEASE_PATHOGENESIS	0.257332533	-0.401001335	0.003474576	0.012352198	27
REACTOME_TCR_SIGNALING	0.195767828	-0.398250833	0.003496514	0.012388940	51
PEDERSEN_TARGETS_OF_611CTF_ISOFORM_OF_ERBB2	0.205747749	-0.397185921	0.003513523	0.012436023	63
ONO_AML1_TARGETS_UP	0.239083171	-0.401390062	0.003539181	0.012513116	24
YAMASHITA_LIVER_CANCER_WITH_EPCAM_UP	0.201862365	-0.399103628	0.003554527	0.012553625	49
TOOKER_GEMCITABINE_RESISTANCE_UP	0.222807962	-0.396526964	0.003563284	0.0125708	75
GAVIN_FOXP3_TARGETS_CLUSTER_P2	0.252903876	-0.393617683	0.003675755	0.012953424	70
KEGG_HYPERTROPHIC_CARDIOMYOPATHY_HCM	0.231388022	-0.394227644	0.003697832	0.013017015	61
PID_RXR_VDR_PATHWAY	0.257933111	-0.396540092	0.003785148	0.0133097	24
DAZARD_UV_RESPONSE_CLUSTER_G4	0.249636726	-0.403701276	0.003789224	0.0133097	16
GAUSSMANN_MLL_AF4_FUSION_TARGETS_C_UP	0.285446496	-0.390333	0.003796619	0.013321181	151
SERVITJA_LIVER_HNF1A_TARGETS_UP	0.141784243	-0.393667313	0.0038048	0.013335359	112
IIZUKA_LIVER_CANCER_PROGRESSION_G2_G3_UP	0.264929456	-0.396797732	0.003824001	0.013388151	23
ACEVEDO_LIVER_TUMOR_VS_NORMAL_ADJACENT_TISSUE_DN	0.182855086	-0.389489432	0.003892583	0.013613497	223
MIKKELSEN_NPC_LCP_WITH_H3K4ME3	0.260400785	-0.391464155	0.003960055	0.013820997	42
DELACROIX_RAR_BOUND_ES	0.219008911	-0.387940298	0.003960478	0.013820997	385
JOHANSSON_GLIOMAGENESIS_BY_PDGFb_UP	0.202492637	-0.390710539	0.004040764	0.014085947	57
KYNG_RESPONSE_TO_H2O2	0.218648656	-0.390479381	0.0040405657	0.014087789	65
REACTOME_G_ALPHA_Q_SIGNALLING_EVENTS	0.231195863	-0.387640668	0.004103115	0.014259925	103
DER_IFN_GAMMA_RESPONSE_UP	0.211802822	-0.388599919	0.004103925	0.014259925	70
CASTELLANO_NRAS_TARGETS_UP	0.260942811	-0.388186726	0.004137028	0.014359491	61
VARELA_ZMPSTE24_TARGETS_UP	0.220623419	-0.390852778	0.004143572	0.014366758	38
WANG_MLL_TARGETS	0.101623409	-0.388189313	0.004151136	0.014377539	198
DACOSTA_UV_RESPONSE_VIA_ERCC3_UP	0.094177821	-0.386489235	0.004236226	0.014656526	299
MOREAUX_B_LYMPHOCYTE_MATURATION_BY_TACI_UP	0.234372207	-0.386021578	0.004280041	0.014792261	76
ACOSTA_PROLIFERATION_INDEPENDENT_MYC_TARGETS_DN	0.154975108	-0.386557411	0.004311666	0.014885625	108
BIOCARTA_CSk_PATHWAY	0.247331454	-0.393479201	0.004325972	0.014919056	20
PID_FRA_PATHWAY	0.19581339	-0.389962171	0.004443087	0.015264543	35
HELLER_SILENCED_BY_METHYLATION_DN	0.204878448	-0.3842930	0.0044448185	0.015307825	94
KEGG_GLIOMA	0.294941284	-0.383268042	0.0044490941	0.015438507	58
SASSON_RESPONSE_TO_GONADOTROPHINS_DN	0.237850246	-0.383062557	0.0044505182	0.015470987	80
GAZDA_DIAMOND_BLACKFAN_ANEMIA_PROGENITOR_UP	0.235093865	-0.386611584	0.004513963	0.015484667	38
HOLLEMAN_ASPARAGINASE_RESISTANCE_B_ALL_UP	0.180938427	-0.400520022	0.004528885	0.015519365	26
DELLA_RESPONSE_TO_TSAs_AND_BUTYRATE	0.248255459	-0.390376468	0.004548286	0.015569317	21
ODONNELL_METASTASIS_UP	0.256685873	-0.382954087	0.004610131	0.015764304	53
ZHAN_LATE_DIFFERENTIATION_GENES_UP	0.270640427	-0.384741338	0.004660917	0.015921102	31
TANG_SENSEENCE_TPS3_TARGETS_UP	0.242333446	-0.388085458	0.004677472	0.015960761	25
WANG_TUMOR_INVASIVENESS_DN	0.166968349	-0.379040881	0.0048481	0.016575595	203
PASINI_SUZ12_TARGETS_UP	0.268164639	-0.379073419	0.004868028	0.016575595	91
AMIT_EGF_RESPONSE_480_MCF10A	0.294462245	-0.380482859	0.00489889	0.016663451	34
PID_CDC42_REG_PATHWAY	0.279268143	-0.381485966	0.004911675	0.016698935	29
BURTON_ADIPOGENESIS_PEAK_AT_OHR	0.245071741	-0.379445103	0.004995496	0.01695632	55
CERVERA_SDHB_TARGETS_1_DN	0.282184406	-0.384176027	0.005026422	0.017043373	19

NUP98-NSD1 downregulated	p.geomean	stat.mean	p.val	q.val	set.size
SUZUKI_RESPONSE_TO_TSA_AND_DECITABINE_1B	0.287627122	-0.384262911	0.005053579	0.017117474	17
REACTOME_G_ALPHA1213_SIGNALLING_EVENTS	0.276619187	-0.376827817	0.005119264	0.017321787	64
KEGG_SMALL_CELL_LUNG_CANCER	0.263743633	-0.376109664	0.005154411	0.017422245	80
PID_ECADHERIN_STABILIZATION_PATHWAY	0.266727233	-0.37794848	0.005170049	0.017457028	39
REACTOME_COSTIMULATION_BY_THE_CD28_FAMILY	0.179789893	-0.378925844	0.005181174	0.017463068	61
LEONARD_HYPoxIA	0.167160133	-0.382929058	0.005182658	0.017463068	45
LEIN_LOCALIZED_TO_PROXIMAL_DENDRITES	0.277104405	-0.37890546	0.005207913	0.017529869	29
BENPORATH_ES_1	0.105370978	-0.374764951	0.00527795	0.017747108	327
RORIE_TARGETS_OF_EWSR1_FLI1_FUSION_DN	0.284368955	-0.384301256	0.005370324	0.018038924	14
REACTOME_NUCLEAR_RECEPtor_TRANSCRIPTION_PATHWAY	0.272332994	-0.376334937	0.005390674	0.018088457	35
KEGG_ENDOMETRIAL_CANCER	0.291995126	-0.374311154	0.005408878	0.018130695	49
YAUCH_HEDGEHOG_SIGNALING_PARACRINE_UP	0.235468207	-0.373343909	0.005468068	0.018310087	102
NIKOLSKY_BREAST_CANCER_BP12_P11_AMPLICON	0.267602065	-0.374657177	0.005531766	0.018504187	42
LI_PROSTATE_CANCER_EPIGENETIC	0.287590496	-0.375673535	0.005554172	0.018559903	25
REACTOME_GASTRIN_CREB_SIGNALLING_PATHWAY_VIA_PKC_AND_MAPK	0.231468947	-0.371688962	0.005591844	0.018666466	122
REACTOME_ADP_SIGNALLING_THROUGH_P2RY1	0.311405201	-0.375323168	0.005604277	0.018658863	21
PID_CD40_PATHWAY	0.247990678	-0.376467796	0.005632283	0.018762651	28
ZHAN_MULTIPLE_MYELOMA_MF_UP	0.23158679	-0.375476484	0.005651363	0.018806805	40
BIOCARTA_CALCIURIN_PATHWAY	0.31469973	-0.374521081	0.005810328	0.019313589	18
JACKSON_DNM1_TARGETS_DN	0.258656239	-0.376168907	0.005880264	0.019510452	23
YAMASHITA_LIVER_CANCER_STEM_CELL_UP	0.272477887	-0.371729477	0.005880938	0.019510452	35
HUMMEL_BURKITTs_LYMPHOMA_UP	0.270599886	-0.372693581	0.005888656	0.019515997	35
COATES_MACROPHAGE_M1_VS_M2_DN	0.210087363	-0.370331191	0.005964928	0.019748499	69
FRASOR_TAMOXIFEN_RESPONSE_UP	0.290847531	-0.369218246	0.006022069	0.019917252	47
FOSTER_TOLERANT_MACROPHAGE_DN	0.085095892	-0.367175288	0.006083599	0.020100106	395
REACTOME_THROMBIN_SIGNALLING_THROUGH_PROTEINASE_ACTIVATED_RECEPtors_PARS	0.280120335	-0.371443235	0.006108978	0.020163377	27
CHENG_IMPRINTED_BY_ESTRADIOL	0.292211717	-0.366882577	0.006129652	0.020210947	89
BIOCARTA_INTEGRIN_PATHWAY	0.289126029	-0.368227859	0.006189889	0.020388738	38
LEIN_ASTROCYTE_MARKERS	0.235156071	-0.372107335	0.006251535	0.020570801	30
TIEN_INTESTINE_PROBIOTICS_24HR_DN	0.067000232	-0.367792958	0.006274947	0.020626811	205
BOSCO_EPITHELIAL_DIFFERENTIATION_MODULE	0.205331924	-0.370795288	0.006294295	0.020669365	38
MILI_PSEUDOPODIA_CHEMOTAXIS_DN	0.175397399	-0.364537519	0.006330087	0.020765775	446
MIKKELSEN_IPS_LCP_WITH_H3K4ME3	0.217743231	-0.365347361	0.00637481	0.020891256	126
KEGG_COLONRECTAL_CANCER	0.298591367	-0.364504077	0.006499008	0.02127667	60
MIKKELSEN_MEf_HCP_WITH_H3_UNMETHYLATED	0.209946663	-0.364429157	0.006536408	0.021377433	109
LEE_AGING_NEOCortex_UP	0.219994359	-0.365124816	0.006546263	0.021387994	77
YOSHIMURA_MAPK8_TARGETS_DN	0.189927494	-0.362922991	0.006562453	0.02141921	326
TURASHVILI_BREAST_LOBULAR_CARCINOMA_VS_DUCTAL_NORMAL_UP	0.137152728	-0.369180915	0.006731214	0.021946135	55
ZHONG_SECRETOme_OF_LUNG_CANCER_AND_FIBROBLAST	0.171121768	-0.363630882	0.006737491	0.021946135	122
RAGHAVACHARI_PLATELET_SPECIFIC_GENES	0.146122303	-0.366091749	0.006778157	0.022056342	70
WELCH_GATA1_TARGETS	0.131993285	-0.371778909	0.006874747	0.022332107	21
REACTOME_GABA_B_RECEPtor_ACTIVATION	0.293580064	-0.364845791	0.006876739	0.022332107	26
REACTOME_RNA_POL_I_TRANSCRIPTION	0.092306429	-0.363538132	0.006968539	0.022607481	77
IIZUKA_LIVER_CANCER_PROGRESSION_L1_G1_UP	0.263926089	-0.367944236	0.006994239	0.022668075	20
KEGG_PARKINSONS_DISEASE	0.101207297	-0.367661714	0.007017832	0.022721727	102
WEST_ADRENOCORTICAL_CARCINOMA_VS_ADENOMA_UP	0.321794037	-0.363672488	0.007065947	0.022854586	18
VANTVEER_BREAST_CANCER_POOR_PROGNOSIS	0.234042689	-0.363151763	0.007078797	0.022872775	45
MARSHALL_VIRAL_INFECTION_RESPONSE_DN	0.264218442	-0.362896619	0.007085742	0.022872775	29
REACTOME_PPRA_ACTIVATES_GENE_EXPRESSION	0.268798435	-0.359374688	0.007093187	0.022873935	93
ST_GA12_PATHWAY	0.280889256	-0.364667741	0.007104249	0.022886742	22
WAMUNYOKOLI_OVARIAN_CANCER_GRADES_1_2_UP	0.26298612	-0.358878049	0.007136489	0.022967683	123
KIM_WT1_TARGETS_12HR_DN	0.251066172	-0.358293562	0.007154207	0.023001774	191
MIKKELSEN_MCV6_LCP_WITH_H3K4ME3	0.234105012	-0.358728854	0.007210592	0.023149958	126
BECKER_TAMOXIFEN_RESISTANCE_UP	0.258710614	-0.360757021	0.00721464	0.023149958	42
DAVICIONI_MOLECULAR_ARMS_VS_ERMS_UP	0.264362146	-0.357081095	0.007263627	0.023270848	283
REACTOME_DOWNSTREAM_TCR_SIGNALING	0.202436106	-0.362069762	0.007266733	0.023270848	34
LANDIS_ERBB2_BREAST_TUMORS_65_UP	0.310650218	-0.360488977	0.007528825	0.024086272	20
AKL_HTLV1_INFECTiON_UP	0.272936276	-0.361383161	0.007595504	0.024275533	25
FIGUEROA_AML METHYLATION_CLUSTER_2_UP	0.312172631	-0.356457307	0.007607275	0.024289105	42
KIM_HYPoxIA	0.233189356	-0.363468696	0.007644043	0.024382384	24
PID_NETRIN_PATHWAY	0.286896157	-0.356016093	0.007988894	0.025457205	30
CHEMNITZ_RESPONSE_TO_PROSTAGLANDIN_E2_DN	0.221711028	-0.351733402	0.008035811	0.025581458	314
WIELAND_UP_BY_HBV_INFECTION	0.058951972	-0.356931803	0.008059762	0.025632427	98
BECKER_TAMOXIFEN_RESISTANCE_DN	0.247706215	-0.355464958	0.008112108	0.025773509	43
KEGG_TyROSine_METABOLISM	0.310420129	-0.354090979	0.008228948	0.026119021	28
SIG_INSULIN_RECEPtor_PATHWAY_IN_CARDIAC_MYOCYTES	0.285618507	-0.352788173	0.008243366	0.026139082	48
ZHANG_INTERFERON_RESPONSE	0.158107879	-0.364956245	0.008303062	0.026293427	22
DAZARD_RESPONSE_TO_UV_SCC_DN	0.228914446	-0.351263483	0.008308332	0.026293427	119
LEE_LIVER_CANCER_E2F1_UP	0.244152012	-0.353329918	0.008361916	0.026437085	51
MYLLYKANGAS_AMPLIFICATION_HOT_SPOT_17	0.329710861	-0.354798461	0.008372492	0.026444623	16
CAIRO_LIVER_DEVELOPMENT_DN	0.121966376	-0.351332285	0.008418722	0.026564649	170
LIANG_HEMATOPOEiSY_STEM_CELL_NUMBER_SMALL_VS_HUGE_UP	0.285621978	-0.35187459	0.008495737	0.026781483	38
BERENJENO_ROCK_SIGNALING_NOT_VIA_RHOA_DN	0.243745636	-0.352079853	0.008533348	0.026873803	44
RAY_TUMORiGENESIS_BY_ERBB2_CDC25A_UP	0.277024666	-0.34913697	0.008608424	0.027083813	87
CAMPS_COLON_CANCER_COPY_NUMBER_DN	0.26648006	-0.351117196	0.0086464316	0.02717654	41
MIKKELSEN_ES_LCP_WITH_H3K4ME3	0.222572783	-0.348976689	0.008767013	0.027529102	94
NABA_ECM_REGULATORS	0.153283201	-0.346767828	0.009072245	0.028459871	137
LE_EGR2_TARGETS_UP	0.100857073	-0.348678644	0.009237388	0.028949794	100
WANG_LSD1_TARGETS_UP	0.272104295	-0.352360266	0.009325547	0.029197736	20
RICKMAN_TUMOR_DIFFERENTIATED_WELL_VS_MODERATELY_UP	0.285882736	-0.344245431	0.009352944	0.029251419	99
HSIAO_LIVER_SPECIFIC_GENES	0.202123272	-0.344712105	0.009360817	0.029251419	145
GYORFFY_MITOXANTRONE_RESISTANCE	0.30210961	-0.3545470627	0.009427544	0.029431444	44
GENTILE_UV_RESPONSE_CLUSTER_D4	0.283980517	-0.344918164	0.00946373	0.029515864	55
NUTT_GBM_VS_AO_GLIOMA_UP	0.262022835	-0.346229916	0.009534173	0.029708684	43
SMID_BREAST_CANCER_RELAPSE_IN_BRAIN_DN	0.29865208	-0.343685973	0.009558398	0.029831444	68
ANASTASSIOU_MULTICANCER_INVASIVENESS_SIGNATURE	0.10722679	-0.354847802	0.009598351	0.029849206	47
GERY_CEBP_TARGETS	0.100901503	-0.34624957	0.009682885	0.030083111	110
PID_DELTA_NPG3_PATHWAY	0.291430827	-0.343564981	0.009834243	0.030523977	37
JAZAERI_BREAST_CANCER_BRCA1_VS_BRCA2_DN	0.280763344	-0.34274169	0.010012348	0.031046933	38
TANAKA_METHYLATED_IN_ESOPHAGEAL_CARCINOMA	0.310963127	-0.340601506	0.010069377	0.031193809	67
WANG_ESOPHAGUS_CANCER_VS_NORMAL_DN	0.253860677	-0.340377993	0.010159593	0.031431909	95
HOLLEMAN_ASPARAGINASE_RESISTANCE_ALL_DN	0.250606638	-0.350197873	0.010236644	0.031651232	24
HOSHIDA_LIVER_CANCER_LATE_RECURRENCE_DN	0.285195939	-0.340017537	0.010352322	0.031978273	55
FOSTER_TOLERANT_MACROPHAGE_UP	0.147250746	-0.340085259	0.010404742	0.03211338	134
BHATTACHARYA_EMbRYONiC_STEM_CELL	0.186926803	-0.341175445	0.010415957	0.03211338	79
ZHAN_MULTIPLE_MYELOMA_DN	0.159525631	-0.346667756	0.010446799	0.032177735	40
NUTT_GBM_VS_AO_GLIOMA_DN	0.273184889	-0.340268963	0.010648004	0.032766213	39
DAZARD_RESPONSE_TO_UV_NHEK_UP	0.092872814	-0.338148244	0.010669582	0.032801343	207
QI_HYPOXIA_TARGETS_OF_HIF1A_AND_FOXA2	0.26395186	-0.339799332	0.010691299	0.032836833	35
NAKAMURA_Adipogenesis_LATE_UP	0.24218767	-0.337189229	0.010759415	0.03301463	96
KEGG_METAeBiotiC_OF_XENOBiOTiCS_BY_CYTOCHROME_P450	0.280483361	-0.339838911	0.010839013	0.033227287	30
MCCLUNG_CREB1_TARGETS_UP	0.276189684	-0.336108881	0.01097718	0.033618917	76
NAKAJIMA_EOSINOPHIL	0.163629374	-0.348974413	0.011135626	0.034071849	28
PID_PS1_PATHWAY	0.317312719	-0.335762694	0.011148179	0.034077956	42
REACTOME_DIABETES_PATHWAYS	0.259835654	-0.333922072	0.011278921	0.034444993	114
ST_FAS_SIGNALING_PATHWAY	0.287172309	-0.334394294	0.011351364	0.034633461	62

NUP98-NSD1 downregulated	p.geomean	stat.mean	p.val	q.val	set.size
BRACHAT_RESPONSE_TO_CISPLATIN	0.286775386	-0.338036981	0.011421601	0.034814852	21
CAIRO_HEPATOBLASTOMA_UP	0.23663942	-0.333143178	0.01145472	0.034882865	196
REACTOME_PLATELET_HOMEOSTASIS	0.278493889	-0.33411099	0.011512828	0.034996185	59
TURASHVILI_BREAST_DUCTAL_CARCINOMA_VS_LOBULAR_NORMAL_DN	0.254910106	-0.335976909	0.011513615	0.034996185	45
ALONSO_METASTASIS_DN	0.303532977	-0.337705746	0.011633454	0.035327177	20
REACTOME_PI3K_AKT_ACTIVATION	0.305014691	-0.334111388	0.01169812	0.03549016	35
BOYAULT_LIVER_CANCER_SUBCLASS_G3_DN	0.290436593	-0.334311457	0.011719452	0.035521492	38
PID_PRL_SIGNALING_EVENTS_PATHWAY	0.301762	-0.335276725	0.011771625	0.035646158	23
MIKKELSEN_IPS_ICP_WITH_H3K4ME3_AND_H327ME3	0.247226897	-0.332979788	0.011783535	0.035648784	71
ZUCCHI_METASTASIS_UP	0.270535888	-0.33376234	0.011942511	0.036095903	38
ROSS_AML_WITH_AML1_ETO_FUSION	0.083602484	-0.351270158	0.012022853	0.036304741	75
NIKOLSKY_BREAST_CANCER_15Q26_AMPLICON	0.302381011	-0.336179558	0.012041010	0.036325739	17
NIKOLSKY_BREAST_CANCER_17Q11_Q21_AMPLICON	0.302368842	-0.330205634	0.012056869	0.03633947	95
GAUSSMANN_MLL_AF4_FUSION_TARGETS_A_UP	0.264077754	-0.329833021	0.012113885	0.036477258	155
MCCLUNG_DELTA_FOSB_TARGETS_2WK	0.292738288	-0.332470725	0.012131202	0.036495538	35
PID_ATF2_PATHWAY	0.223709735	-0.331565358	0.012186943	0.036628914	54
HOSHIDA_LIVER_CANCER_SUBCLASS_S2	0.237509803	-0.329787569	0.012273422	0.036854517	108
CHIARADONNA_NEOPLASTIC_TRANSFORMATION_KRAS_CDC25_UP	0.237280955	-0.332190242	0.012329887	0.03698966	54
MCBRYAN_PUBERTAL_TGFBI1_TARGETS_DN	0.205862988	-0.32925692	0.01242765	0.037242669	49
RODRIGUES_NTIN1_AND_DCC_TARGETS	0.261940502	-0.331998202	0.012437965	0.037242669	33
BIOCARTA_CXCR4_PATHWAY	0.30237201	-0.3303049535	0.012448835	0.037242669	22
ALTEMEIER_RESPONSE_TO_LPS_WITH_MECHANICAL_VENTILATION	0.04302543	-0.335238382	0.012554142	0.037522936	116
CHEOK_RESPONSE_TO_MERCAPTOPURINE_DN	0.311355091	-0.331698712	0.012579252	0.037563206	22
LIANG_SILENCED_BY METHYLATION_UP	0.236001745	-0.335867359	0.012635965	0.037697685	24
REACTOME_SIGNALING_BY_ROBO_RECEPTOR	0.30817656	-0.329810532	0.012833578	0.038220335	27
MADAN_DPPA4_TARGETS	0.283361129	-0.330501788	0.012834834	0.038220335	28
MARKEY_RB1_CHRONIC_LOF_UP	0.236248525	-0.32737982	0.012882359	0.038326502	105
PID_RHODOPSIN_PATHWAY	0.318655859	-0.334396334	0.013028605	0.038706334	12
GRAESSMANN_APOPTOSIS_BY_SERUM_DEPRIVATION_DN	0.240949061	-0.325398892	0.013034001	0.038706334	200
MCCABE_HOXC6_TARGETS_DN	0.229328083	-0.334343548	0.013269589	0.039369699	20
REACTOME_KERATAN_SULFATE BIOSYNTHESIS	0.311881821	-0.329269233	0.013366303	0.039620232	18
WANG_NEOPLASTIC_TRANSFORMATION_BY_CCND1_MYC	0.253192964	-0.335348347	0.013406762	0.039703697	18
STAEGE_EWING_FAMILY_TUMOR	0.318891149	-0.329562029	0.013441743	0.039770805	16
PID_HESHEY_PATHWAY	0.313506158	-0.32516912	0.013470244	0.039818634	41
PID_HIF1_TFPATHWAY	0.224393675	-0.326373209	0.013511035	0.039902671	58
LIU_SOX4_TARGETS_UP	0.299002175	-0.323385237	0.013545197	0.039966998	124
BACOLOD_RESISTANCE_TO_ALKYLATING_AGENTS_UP	0.247596158	-0.323158074	0.013557601	0.039967066	21
KYNG_DNA_DAMAGE_BY_GAMMA_AND_UV_RADIATION	0.286386286	-0.323943647	0.0135738	0.03997831	79
IKEDA_MIR30_TARGETS_DN	0.2393943623	-0.327140803	0.013990022	0.041166628	22
NGUYEN_NOTCH1_TARGETS_UP	0.32849179	-0.323737893	0.014049125	0.041302892	26
OLSSON_E2F3_TARGETS_DN	0.208837679	-0.326345445	0.01421795	0.041761186	43
IWANAGA_CARCINOGENESIS_BY_KRAS_PTEN_UP	0.278954975	-0.320417179	0.014276617	0.041886814	140
SANA_TNF_SIGNALING_UP	0.152240645	-0.322918967	0.014280466	0.041886814	72
OLSSON_E2F3_TARGETS_UP	0.298028255	-0.32354099	0.014473471	0.042395976	25
SARTIPI_NORMAL_AT_INSULIN_RESISTANCE_UP	0.230889063	-0.324968709	0.014544619	0.042565756	33
REACTOME_SIGNAL_AMPLIFICATION	0.308893432	-0.322726421	0.014558326	0.042567279	27
REACTOME_YAP1_AND_WWTR1_TAZ_STIMULATED_GENE_EXPRESSION	0.294839098	-0.324033342	0.014614462	0.042692744	20
HEIDENBLAD_AMPLICON_12P11_12_UP	0.334961365	-0.320255576	0.014737377	0.043012887	30
CHO_NR4A1_TARGETS	0.309474507	-0.321470063	0.014984128	0.043693554	23
PEART_HDAC_PROLIFERATION_CLUSTER_UP	0.265822915	-0.318793577	0.015173987	0.044202748	57
HOFFMANN_PRE_BI_TO_LARGE_PRE_BI LYMPHOCYTE_UP	0.317913726	-0.318562773	0.015336736	0.044641104	31
CHESLER_BRAIN_HIGHEST_GENETIC_VARIANCE	0.326039607	-0.318126238	0.015335284	0.044646102	33
LUI_THYROID_CANCER_PAX8_PPARG_DN	0.172697387	-0.327002275	0.015832026	0.045999801	43
GOTZMANN_EPITHELIAL_TO_MESENCHYMAL_TRANSITION_UP	0.192610789	-0.31768033	0.01584877	0.0460007042	65
JOHANSSON_GLIOMAGESESIS_BY_PDGFB_DN	0.327391211	-0.317392219	0.016080193	0.046635269	18
ZHENG_FOPX3_TARGETS_IN_TLYMPHOCYTE_DN	0.25891239	-0.31747162	0.016094008	0.046635269	33
KEGG_PATHOGENIC_ESCHERICHIA_COLI_INFECTION	0.268015546	-0.314992319	0.016256033	0.04706231	49
REACTOME_TRANSMEMBRANE_TRANSPORT_OF_SMALL_MOLECULES	0.204448694	-0.31272302	0.016345865	0.047250971	287
NAKAYAMA_GFG2_TARGETS	0.294387202	-0.317487984	0.016350475	0.047250971	24
AMIT_EGF_RESPONSE_120_HELA	0.201724163	-0.314408502	0.016444764	0.047480434	65
VANTVEER_BREAST_CANCER_ESR1_UP	0.170439008	-0.312581439	0.016459295	0.047480434	210
VANTVEER_BREAST_CANCER_METASTASIS_DN	0.1959708	-0.313511424	0.016730459	0.048219574	111
ABE_VEGA TARGETS_2HR	0.259198759	-0.314476753	0.016842003	0.048497757	30
KIM_WT1_TARGETS_8HR_DN	0.305246976	-0.31047239	0.01696605	0.048783574	103
NATSUME_RESPONSE_TO_INTERFERON_BETA_DN	0.21990143	-0.314676363	0.016974898	0.048783574	50
RUTELLA_RESPONSE_TO_HGF_VS_CSF2RB_AND IL4_DN	0.179133254	-0.310662235	0.016986598	0.048783574	235
STAMBOLSKY_RESPONSE_TO_VITAMIN_D3_DN	0.337356955	-0.313582705	0.017018963	0.048833079	20
PID_INTEGRIN2_PATHWAY	0.250036944	-0.316602658	0.01708795	0.048987481	24
LABBE_TARGETS_OF_TGFBI1_AND_WNT3A_DN	0.242581484	-0.31096162	0.017132205	0.049053048	83
BIOCARTA_PYK2_PATHWAY	0.328172974	-0.312775956	0.017141214	0.049053048	28
SCHRAMM_INHBA_TARGETS_DN	0.316851861	-0.313233863	0.017242961	0.049300512	22
COULOURN_TEMPORAL_TGFBI1_SIGNATURE_DN	0.190623311	-0.310333392	0.017289976	0.049391189	117
ABRAHAM_ALPC_VS_MULTIPLE_MYELOMA_UP	0.204949834	-0.318742535	0.017346259	0.049508156	26
DARWICHE_PAPILLOMA_RISK_HIGH_VS_LOW_DN	0.315517617	-0.311007347	0.017423897	0.049685811	28
KEGG_CARDIAC_MUSCLE_CONTRACTION	0.296255889	-0.310065993	0.017514401	0.049899811	49
PID_IL27_PATHWAY	0.271000628	-0.31191652	0.017616434	0.050146252	22
REACTOME_FRS2_MEDIATED CASCADE	0.31614154	-0.311376283	0.017703626	0.050305048	24
OHGUCHI_LIVER_HNF4A_TARGETS_UP	0.27096541	-0.310854477	0.017831267	0.050668425	34
HUI_MAPK14_TARGETS_UP	0.30718506	-0.311504978	0.01787309	0.050742599	20
SASSON_RESPONSE_TO_FORSKOLIN_UP	0.248209856	-0.308161844	0.017943576	0.050883138	82
SASSON_RESPONSE_TO_FORSKOLIN_DN	0.271607013	-0.307688085	0.017954118	0.050883138	81
BASSO_CD40_SIGNALING_DN	0.246312587	-0.308750635	0.018029624	0.051052303	64
CERIBELLI_PROMOTERS_INACTIVE_AND_BOUND_BY_NFY	0.327268816	-0.309733843	0.018323241	0.05183823	19
SCHLESINGER_METHYLATED_DE_NOVO_IN_CANCER	0.254070882	-0.307060326	0.018589204	0.052544615	59
BARIS_THYROID_CANCER_UP	0.311457431	-0.307621713	0.018942312	0.053495874	23
GENTILE_UV_RESPONSE_CLUSTER_D6	0.29963122	-0.306043674	0.019119269	0.053948426	35
CHEMELLO_SOLEUS_VS_EDL_MYOFIBERS_UP	0.298582279	-0.309318777	0.019136992	0.053951276	17
GAUSSMANN_MLL_AF4_FUSION_TARGETS_G_DN	0.335674785	-0.30417902	0.019536162	0.055028562	28
ADDYA_ERYTHROID_DIFFERENTIATION_BY_HEMIN	0.181865609	-0.303754318	0.019584319	0.055116112	73
DIRMEIER_LMP1_RESPONSE_LATE_UP	0.221012225	-0.303059034	0.020051288	0.056381747	57
KEGG_NEUROTROPHIN_SIGNALING_PATHWAY	0.264795954	-0.299866808	0.020202024	0.057087572	115
HAN_SATB1_TARGETS_UP	0.218086888	-0.299084102	0.0203553	0.057136441	337
BAE_BRCA1_TARGETS_DN	0.322311385	-0.301346889	0.020505612	0.057500878	31
KEGG_CALCIUM_SIGNALING_PATHWAY	0.237611948	-0.299214562	0.020520759	0.057500878	122
INGRAM_SHH_TARGETS_DN	0.244986214	-0.301145692	0.020558373	0.057556314	53
UROSEVIC_RESPONSE_TO_IMIQUIMOD	0.185817143	-0.310225509	0.020665164	0.057805155	21
DUAN_PRDM5_TARGETS	0.311502968	-0.298313733	0.021015328	0.058733749	61
TIEN_INTESTINE_PROBIOTICS_GHR_DN	0.259210854	-0.296932653	0.021295393	0.05946499	159
GARGALOVIC_RESPONSE_TO_OXIDIZED_PHOSPHOLIPIDS_BLACK_UP	0.256045132	-0.300335659	0.021353685	0.059576227	33
PEPPER_CHRONIC_LYMPHOCYTIC_LEUKEMIA_DN	0.292574595	-0.305156167	0.02159048	0.06018486	14
BROWNE_HCMV_INFECTON_12HR_UP	0.266923416	-0.296136892	0.021641744	0.060273111	97
VERRECCHIA_DELAYED_RESPONSE_TO_TGFBI1	0.272591089	-0.298809818	0.021853903	0.060814136	33
BIOCARTA_PGC1A_PATHWAY	0.324439558	-0.298237346	0.021954576	0.061041663	22
RUTELLA_RESPONSE_TO_HGF_UP	0.053811133	-0.296165127	0.021987211	0.061079791	398
REACTOME_INTERFERON_GAMMA_SIGNALING	0.169888665	-0.297335869	0.022172698	0.061527574	59
XU_HGF_SIGNALING_NOT_VIA_AKT1_48HR_UP	0.295697296	-0.297282198	0.022186511	0.061527574	31

NUP98-NSD1 downregulated	p.geomean	stat.mean	p.val	q.val	set.size
REACTOME_SLC_MEDIATED_TRANSMEMBRANE_TRANSPORT	0.252936081	-0.293548792	0.022427064	0.062141254	167
ROESSLER_LIVER_CANCER_METASTASIS_DN	0.3363523	-0.293671894	0.022698514	0.062839454	47
GALLUZZI_PREVENT_MITOCHONDIAL_PERMEABILIZATION	0.340404387	-0.295623624	0.02285102	0.063207448	22
SENGUPTA_NASOPHARYNGEAL_CARCINOMA_WITH_LMP1_DN	0.178771564	-0.29418067	0.022915328	0.063331061	96
BOYLAN_MULTIPLE_MYELOMA_PCA3_UP	0.300798486	-0.291966709	0.023329193	0.064419705	66
DANG_MYC_TARGETS_DN	0.301229817	-0.292866837	0.023974921	0.066146192	31
RADAeva_RESPONSE_TO_IFNA1_UP	0.167574943	-0.293968353	0.024092757	0.066414534	51
PETROVA_PROX1_TARGETS_UP	0.277283361	-0.293313177	0.02426985	0.066845629	26
KEGG_TRYPTOPHAN_METABOLISM	0.283857688	-0.292405164	0.024417898	0.067196058	32
PID_MET_PATHWAY	0.289178303	-0.288410617	0.024718119	0.067964299	79
GROSS_HYPOXIA_VIA_ELK3_ONLY_UP	0.23013287	-0.294148205	0.024761395	0.068005896	31
HOFMANN_MYELODYSPLASTIC_SYNDROM_LOW_RISK_UP	0.326575403	-0.291390415	0.024775382	0.068005896	20
REACTOME_GABA_RECEPTOR_ACTIVATION	0.319317546	-0.290099985	0.024873284	0.068216619	29
WEIGEL_OXIDATIVE_STRESS_BY_TBH_AND_H2O2	0.302569099	-0.289319609	0.025117677	0.068828406	33
NIKOLSKY_BREAST_CANCER_12Q13_Q21_AMPLICON	0.331436537	-0.28777942	0.025239075	0.069102404	38
SHETH_LIVER_CANCER_VS_TXNP_LOSS_PAM6	0.337796659	-0.287026199	0.025377317	0.069422016	41
PID_ECADHERIN_NASCENT_AJ_PATHWAY	0.322082723	-0.287320157	0.025430832	0.069481133	39
BIOCARTA_ALK_PATHWAY	0.329210801	-0.288561001	0.025441976	0.069481133	25
HATADA METHYLATED_IN_LUNG_CANCER_DN	0.323638024	-0.290907478	0.025739425	0.070234035	17
ZIRN_TRETINOIN_RESPONSE_WT1_UP	0.295856393	-0.289042517	0.02613329	0.07124853	20
BOUDOUKHA_BOUND_BY_IGF2BP2	0.230258171	-0.284201405	0.026815229	0.073029934	98
ONO_FOXP3_TARGETS_DN	0.241969908	-0.285642775	0.02683194	0.073029934	39
YAMAZAKI_TCEB3_TARGETS_DN	0.225959721	-0.282148467	0.026999603	0.073424363	194
AMBROSINI_FLAVOPIRIDOL_TREATMENT_TPS3	0.281627037	-0.281961284	0.027163522	0.073760741	100
SUMI_HNF4A_TARGETS	0.313218917	-0.287837444	0.027168996	0.073760741	16
BOYLAN_MULTIPLE_MYELOMA_D_CLUSTER_UP	0.325819329	-0.284232166	0.027406489	0.074337509	24
PID_P75_NTR_PATHWAY	0.294981575	-0.281945523	0.027427501	0.074337509	62
REACTOME_INTEGRIN_CELL_SURFACE_INTERACTIONS	0.192040429	-0.283432299	0.027525395	0.074540246	69
FURUKAWA_DUSP6_TARGETS_P135_UP	0.269310954	-0.281130081	0.028135105	0.076127511	54
BURTON_ADIPOGENESIS_PEAK_AT_8HR	0.292304523	-0.281203869	0.028199702	0.076238392	39
BIOCARTA_GH_PATHWAY	0.334293214	-0.281447292	0.028252004	0.076315874	26
BYSTRYKH_HEMATOPOIESIS_STEM_CELL_AND_BRAIN_QTL_TRANS	0.314401217	-0.278326802	0.0284421	0.076765133	163
NIKOLSKY_BREAST_CANCER_7Q21_Q22_AMPLICON	0.305296139	-0.278696029	0.028639221	0.077232585	56
NEMETH_INFLAMMATORY_RESPONSE_LPS_UP	0.116693342	-0.281889288	0.029028406	0.078193339	87
SIG_CD40PATHWAYMAP	0.282973789	-0.2803929	0.029043932	0.078193339	34
RIGGI_EWING_SARCOMA_PROGENITOR_DN	0.129034	-0.279366789	0.029105899	0.078294868	135
MARKS_HDAC_TARGETS_UP	0.336240546	-0.279792479	0.029355946	0.078901743	22
SU_PLACENTA	0.299636881	-0.281846651	0.029599271	0.079489557	17
MEISSNER_NPC_ICP_WITH_H3_UNMETHYLATED	0.319029429	-0.284355958	0.029947344	0.080357461	11
KASLER_HDAC7_TARGETS_2_DN	0.27435514	-0.277414105	0.030493347	0.081754587	29
PID_PTP1B_PATHWAY	0.287824131	-0.275632698	0.030658986	0.082066283	47
KEGG_LEUKOCYTE_TRANSENDOTHELIAL_MIGRATION	0.251934825	-0.274643641	0.030660451	0.082066283	94
AMUNDSON_POOR_SURVIVAL_AFTER_GAMMA_RADIATION_2G	0.25127267	-0.273158355	0.030893185	0.082620714	169
YAO_TEMPORAL_RESPONSE_TO_PROGESTERONE_CLUSTER_15	0.280472109	-0.277078735	0.030985742	0.082799648	33
AKL_HTLV1_INFECTION_DN	0.279207736	-0.27455237	0.031065434	0.082943939	64
NADLER_HYPERGLYCEMIA_AT_OBESITY	0.317573115	-0.273477369	0.031585258	0.084226159	49
JL_METASTASIS_REPRESSSED_BY_STK11	0.277821375	-0.278583892	0.031809427	0.084790117	20
LIN_AP_C TARGETS	0.265297546	-0.271895207	0.032280098	0.085973737	74
SCHAFFER_PRSTATE_DEVELOPMENT_AND_CANCER_BOX4_DN	0.316425768	-0.272721591	0.032406652	0.086239631	32
TORCHIA_TARGETS_OF_EWSR1_FLI1_FUSION_UP	0.262553949	-0.269633658	0.032531086	0.086447921	242
KEGG_AUTOIMMUNE_THYROID_DISEASE	0.1470474218	-0.274648042	0.032538483	0.086447921	31
UEDA_PERIFERAL_CLOCK	0.270350227	-0.269748415	0.032682364	0.086758776	153
REACTOME_SIGNALING_BY_PDGFB	0.260580794	-0.269764434	0.032745958	0.086856164	110
BOHN_PRIMARY_IMMUNODEFICIENCY_SYNDROM_DN	0.274888795	-0.272604537	0.032813951	0.086965052	39
PID_FA1_PATHWAY	0.280320956	-0.270177975	0.033175228	0.087821174	56
KEGG_ALZHEIMERS_DISEASE	0.193996979	-0.270073061	0.033191398	0.087821174	139
MORI_SMALL_PRE_BII LYMPHOCYTE_UP	0.317264519	-0.268843077	0.033299924	0.088036163	76
SANA_TNF_SIGNALING_DN	0.207941944	-0.27088969	0.033462588	0.088393808	80
SHEPARD_BMBV TARGETS	0.191947185	-0.27158444	0.033507631	0.088440418	57
REACTOME_SIGNALING_BY_FGFR	0.317627038	-0.267853691	0.033610008	0.088638157	91
OUYANG_PROSTATE_CANCER_PROGRESSION_DN	0.330213358	-0.270287012	0.034007911	0.089614315	20
HUANG_DASATINIB_RESISTANCE_DN	0.336011499	-0.266770243	0.034477388	0.089777333	59
PID_IGF1_PATHWAY	0.334200712	-0.267391181	0.034803367	0.091560935	30
MATZUK_SPERMATOZOA	0.343609528	-0.265191328	0.035009497	0.092028222	81
CHIANG_LIVER_CANCER_SUBCLASS_INTERFERON_UP	0.282680946	-0.271527972	0.035135414	0.092284065	19
REACTOME_INTERFERON_ALPHA_BETA_SIGNALING	0.147937826	-0.269084565	0.035342713	0.092753071	50
BIOCARTA_BIOPEPTIDES_PATHWAY	0.331234483	-0.265671942	0.035408876	0.09285122	37
MANTOVANI_VIRAL_GPCR_SIGNALING_UP	0.256946133	-0.265141431	0.035833622	0.093888744	69
LEE_LIVER_CANCER_MYC_TGFA_UP	0.296684709	-0.264722961	0.035942648	0.094098027	53
AMIT_EGF_RESPONSE_40_HELA	0.151512149	-0.267022874	0.035993194	0.094153995	41
LINDSTEDT_DENDRITIC_CELL_MATURATION_C	0.301934363	-0.26401999	0.036023758	0.094157644	65
MATZUK_SPERMATID_DIFFERENTIATION	0.359210017	-0.264579355	0.036399401	0.095062514	23
OHGUCHI_LIVER_HNF4A TARGETS_DN	0.302698846	-0.262587467	0.036584686	0.095469173	84
REACTOME_INCRETIN_SYNTHESIS_SECRETION_AND_INACTIVATION	0.345472562	-0.269038685	0.03700934	0.096499313	10
CHUANG_OXIDATIVE_STRESS_RESPONSE_UP	0.316806443	-0.264657738	0.03709596	0.096647103	26
BIOCARTA_IGF1_PATHWAY	0.36281914	-0.263910915	0.037139224	0.096681786	21
KYNG_ENVIRONMENTAL_STRESS_RESPONSE_UP	0.300637322	-0.26227422	0.037332152	0.097105711	53
SHAFFER_IRF4_TARGETS_IN_MYELOMA_VS_MATURE_B_LYMPHOCYTE	0.212920389	-0.26229483	0.037377094	0.097144332	99
WANG_BARRETT_ESOPHAGUS_AND_ESOPHAGUS_CANCER_UP	0.320678134	-0.264398328	0.037440323	0.097230381	20
TURASHVILI_BREAST_LOBULAR_CARCINOMA_VS_LOBULAR_NORMAL_DN	0.175589263	-0.264553731	0.037637243	0.0976632	61
GRUETZMANN_PANCREATIC_CANCER_DN	0.279222184	-0.260183871	0.037697331	0.097740551	168
PID_IL2_STATS_PATHWAY	0.306098719	-0.262421607	0.037959127	0.09834034	28

Supplemental table 10. List of compounds of every screened drug library

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
1-(2-METHOXYPHENYL)PIPERAZINE HYDROCHLORIDE	(-) -Levobunolol hydrochloride	10-Hydroxycamptothecin	2,4-Pyridinedicarboxylic Acid	(+)-JQ-1	(-) -Neplanocin A
1,2alpha-EPOXYDEACETOXYDIHYDROGED UNIN	(-) -Emtricitabine	2'-DEOXY-5-FLUOROURIDINE	5-Aza-2'-deoxycytidine (Decitabine)	17-AAG	(S)-HDAC-42
1,2-DIMETHYLHYDRAZINE HYDROCHLORIDE	(-) -Eseroline fumarate salt	2'-Deoxy-5-methylcytidine	AGK2	4'-Demethylepipodophyllotoxin	1-Naphthoid Acid
1,3-DIDEACETYL-7-DEACETOXY-7-OXOKHIVORIN	(-) -Isoproterenol hydrochloride	5'-DEOXY-5-FLUOROCYTISINE	Aminoresveratrol sulfate	4SC-202 (free base)	2',3',5'-triacetyl-5-Azacytidine
1,4,5,8-TETRAHYDROXY-2,6-DIMETHYLANTHROQUINONE	(-) -MK 801 hydrogen maleate	7-EPI-TAXOL	Anacardic acid	5-Azacytidine	2,4-DPD
1,7-DIDEACETOXY-1,7-DIOXO-3-DEACETYLKHIVORIN	(+) -Levobunolol hydrochloride	7-ETHYL-10-HYDROXYCAMPTOTHECIN	Apicidin	5-BrdU	2-PCPA (hydrochloride)
1,7-DIDEACETOXY-1,7-DIOXOKHIVORIN	(+) -Isoproterenol (+)-bitartrate salt	A-769662	B2	5-Fluorouracil	3-amino benzamide
10-HYDROXYCAMPTOTHECIN	(+,-) -Octopamine hydrochloride	ABIRATERONE	BIX-01294-3HCl	6-Mercaptapurine	3-Deazaneplanocin A
11a-ACETOXYPROGESTERONE	(+,-) -Synephrine	ABIRATERONE ACETATE	BML-210	6-Thioguanine	4-iodo SAHA
11-OXOURSOLIC ACID ACETATE	(R) -Naproxen sodium salt	ABT-263	BML-266	A-366	AGK2
12a-HYDROXY-9-DEMETHYLMUNDUSERONE-8-CARBOXYLIC ACID	(R)-(+) -Atenolol	ABT-888	BML-278	A-966492	Anacardic Acid
12-HYDROXY-4,4-BISNOR-4,8,11,13-PODOCARPATETRAEN-3-ONE	(R) -Propranolol hydrochloride	ACLARUBICIN HCL	BML-281	ABT-751	Apicidin
12-METHOXY-4,4-BISNOR-5beta-8,11,13-PODOCARPATRIEN-3-OL (S)-(+) -Atenolol		ADRIAMYCIN	Butyrolactone 3	ACY-1215	Benzenebutanoic Acid (sodium salt)
13-METHYL-4,4-BISNOR-8,11,13-PODOCARPATRIEN-3-ONE	(S)-(+) -Cycloserine	AFATINIB	CI-994	Adenine	BIX01294 (hydrochloride hydrate)
15-NORCARVOPHYLLEN-3-ONE	(S)-propranolol hydrochloride	ALARELIN ACETATE	CTPB	Adenosine	CAY10398
18alpha-GLYCYYRRHETINIC ACID	2-Aminobenzenesulfonamide	AMG-458	EX-527	Alisertib	CAY10433
18-AMINOABIETA-8,11,13-TRIENE SULFATE	2-Chloropyrazine	ANASTROZOLE	Fluoro-SAHA	Altretamine	CAY10603
1-HYDROXY-3,6,7-TRIMETHOXY-2,8-DIPRENYLXANTHONE	3-alpha-Hydroxy-5-beta-androstan-17-one	APREPITANT	Garcinol	Alvespimycin (hydrochloride)	CBHA
1-MONOPALMITIN	4-aminosalicylic acid	AS703026	Isonicotinamide	AMG 900	CCG-100602
1R,2S-PHENYLPROPYLAMINE	5-fluorouracil	AXITINIB	ITSA-1	AMG 925	Chidamide
2,2'-AZO-bis-2-AMINOPROPANE	6-Furfurylaminopurine	AZD-4547	M-344	AMI-1	Cl-Amidine
2',2"-BISPIGALLOATECHIN DIGALLATE	Abacavir Sulfate	AZD-6244	MC-1293	Amodiaquin (dihydrochloride dihydrate)	DMOG
2,3,4-TRIHYDROXY-4'-ETHOXYBENZOPHENONE	Acamprosate calcium	AZD-8055	NCH-51	Amonafide	Ellagic Acid
2,3,4'-TRIHYDROXY-4-METHOXYBENZOPHENONE	Acarbose	BAY 60-7550	Nicotinamide	Amsacrine	Ex-527
2',3-DIHYDROXY-4',6'-TRIMETHOXYCHALCONE	Acetabulol hydrochloride	BLEOMYCIN SULPHATE	NSC-3852	APTO-253	F-Amidine (trifluoroacetate salt)
2,3-DIHYDROXY-4-METHOXY-4'-ETHOXYBENZOPHENONE	Aceclidine Hydrochloride	BMS-777607	Nullscript	ARRY-520	Garcinol
2,3-DIHYDROXY-6,7-DICHLOROQUINOXALINE	Aceclofenac	BMS-794833	Oxamflatin	ARRY-520 (R enantiomer)	HC Toxin
2',4-DIHYDROXY-3',4',6'-TRIMETHOXYCHALCONE	Acefylline	BORTEZOMIB	Phenylbutyrate-Na	AT7519 (Hydrochloride)	HNHA
2',4'-DIHYDROXY-4-METHOXYCHALCONE	Acemetacin	BOSUTINIB Isomer 1	Piceatannol	AT7519 (trifluoroacetate)	I-BET
2',4'-DIHYDROXYCHALCONE	Acenocoumarol	BРИVANIB ALANINATE	Resveratrol	AT9283	Isoquiritigenin
2',4'-DIHYDROXYCHALCONE	Acetaminophen	BUSERELIN ACETATE	Salermide	Aurora A inhibitor I	JGB1741
2',4'-DIHYDROXYCHALCONE 4'-GLUCOSIDE	Acetazolamide	CANERTINIB DIHCL	Scriptaid	AZ20	M 344
2',5'-DIHYDROXY-4-METHOXYCHALCONE	Acetohexamide	CARMUSTINE	Sirtinol	AZ3146	Mirin
2,6-DIHYDROXY-4-METHOXYTOLUENE	Acetopromazine maleate salt	CCG-63802	Splitomicin	AZD1152	MS-275
2,6-DIMETHOXYQUINONE	Acetylcysteine	CCG-63808	Suberoyl bis-hydroxamic acid	AZD1152-HQPA	Nicotinamide
21-ACETOXPREGNENOLONE	Acetylsalicylic acid	CDDO Methyl ester	Suramin-6Na	AZD-2461	Oxamflatin
2-BENZOYL-5-METHOXYBENZOQUINONE	Acetylsalicylic acid	CEDIRANIB	Tranlycypromine hemisulfate	AZD-5438	Phthalazinone pyrazole
2-HYDROXY-3,4-DIMETHOXYBENZOIC ACID	Acipimox	CISPLATIN	Triacetylresveratrol	AZD6738	Piceatannol
2-HYDROXY-5-(6)EPOXY-TETRAHYDROCARYOPHYLLENE	Acitretin	CLADRIBINE	Trichostatin A	AZD-7762	Pimelic Diphenylamide 106
2-ISOPROPYL-3-METHOXYCINNAMIC ACID	Acyclovir	CLOFARABINE	Valproic acid	Balaglitazone	RG-108
2-MERCAPTOBENZOTHIAZOLE	Adamantamine fumarate	CP-69050	Valproic acid hydroxamate	b-AP15	S-Adenosylhomocysteine
2-METHOXY-5-(6)EPOXY-TETRAHYDROCARYOPHYLLENE	Adenosine 5'-monophosphate monohydrate	CRIZOTINIB	Vorinostat (SAHA)	Belinostat	SAHA
2'-METHOXYFORMONETIN	Adipheneine hydrochloride	CYC-116	Zebularine	Betulinic acid	Salermide
2-METHOXYRESORCINOL	Adrenosterone	CYT387		Bezafibrate	Scriptaid
2-METHYL GRAMINE	Albendazole	CYTARABINE		BG45	Sinefungin
2-METHYL-4-(PIPERIDIN-1-YLCARBOXY)-5-ISOPROPYLPHENYLTRIMETHYLA					
MMONIUM CHLORIDE	Aclometasone dipropionate	DASATINIB		BI 2536	Sodium Butyrate
2-METHYL-5,7,8-TRIMETHOXYISOFLAVONE	Alcuronium chloride	Daun02		BIBR 1532	Splitomycin

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
2-METHYLENE-5-(2,5-DIOXOTETRAHYDROFURAN-3-YL)-6-OXO-10,10-DIMETHYLBICYCLO[7.2.0]DECANE	Alendronate sodium Alexidine dihydrochloride	DAUNORUBICINHCl Dideoxycytidine	BIIB021 BIO	Suberohydroxamic Acid Suramin (sodium salt)	
3,16-DIDEOXYMEXICANOLIDE-3beta-DIOL	Alfacalcidol	DOCETAXEL	BIX-01294	Tenovin-1	
3,3'-DIINDOLYL METHANE	Alfadalone acetate	DOVITINIB LACTATE	BMH-21	Tenovin-6	
3,4',5,6,7-PENTAMETHoxyFLAVONE	Alfaxalone	DOXIFLURIDINE	BML-210	trans-resveratrol	
3,4-DIDESMETHYL-5-DEHYDROXY-3'-ETHOXYSCLEROIN	Alfuzosin hydrochloride	DOXORUBICIN HYDROCHLORIDE	BML-277 BMS-265246	Trichostatin A Tubastatin A	
3,4-DIMETHOXYDALBERGIONE	Alizapride HCl	ELACRIDAR	BRD4770	UNC0224	
3,4'-DIMETHoxyFLAVONE	Allantoin	ELACRIDAR HCl	BRD7116	UNC0321	
3,6-DIMETHoxyFLAVONE	Allopurinol	ENOCITABINE	BRD73954	UNC0638	
3,7-DIMETHoxyFLAVONE	Alprenolol hydrochloride	EPIRUBICIN HYDROCHLORIDE	Bromosporine	Valproic Acid (sodium salt)	
3,7-DIMETHoxyFLAVONE	Alprostadil	EPTAPLATIN	BSI-201	Zebularine	
3,7-EPOXYCARYOPHYLLAN-6-OL	Althiazide	ERLOTINIB			
3,7-EPOXYCARYOPHYLLAN-6-ONE	Altretamine	ERLOTINIB HCl	Busulfan		
3-ACETAMIDOCOUMARIN	Alverine citrate salt	ERLOTINIB MESYLATE ESTRAMUSTINE SODIUM PHOSPHATE	Cabazitaxel		
3-ACETYLGEDUNOL	Ambrisenatan		Campathycin		
3alpha-ACETOXYDIHYDRODEOXYGEDU NIN	Ambroxol hydrochloride	ETOPOSIDE		Capecitabine	
3alpha-HYDROXY-4,4-BISNOR-8,11,13-PODOCARPATRIENE	Amcinonide	EXEMESTANE		Carboplatin	
3-AMINO-1,2,4-TRIAZOLE	Amethopterin (R,S)	FASUDIL HCl		Carmofur	
3-AMINO-beta-PINENE	Amfepramone hydrochloride	FLAVOPIRIDOL		Carmustine	
3beta-ACETOXY-23-BROMO-ISOALLOSPIROST-9 (11)-ENE-12-ONE	Amidopyrine	FLUDARABINE	CB-5083		
3beta-HYDROXY-23,24-BISNORCHOL-5-ENIC ACID	Amifostine	FLUDARABINE PHOSPHATE	CCT 137690		
3beta-HYDROXYDEOXODIHYDROEOXYGEDUNIN	Amikacin hydrate	FORETINIB	CCT129202		
3beta-HYDROXYISOALLOSPIROST-9(11)-ENE dihydrate	Amiloride hydrochloride	FORMESTANE	CCT241533 (hydrochloride)		
3-DEOXO-3beta-HYDROXYMEXICANOLIDE 16-ENOL ETHER	Aminocaproic acid	GDC-0941	CDK9-IN-1		
3-DEHYDROXYSAPPANOL TRIMETHYL ETHER	Aminohippuric acid	GEFITINIB	CDK-IN-2		
3H-1,2-DITHIOLE-3-THIONE	Aminophylline	GEMCITABINE HYDROCHLORIDE	Cevipabulin		
3-HYDROXY-4-(SUCCIN-2-YL)-CARYOLANE delta-LACTONE	Aminopurine, 6-benzyl	GOSERELIN ACETATE	CGK733		
3-HYDROXYCOUMARIN	Amiodarone hydrochloride	GSK 2118436	CHIR-124		
3-HYDROXYFLAVONE	Amiprilose hydrochloride	GSK-1120212	CHR-6494		
3-HYDROXYTYRAMINE	Amisulpride	GSK-1120212 DMSO	CI-994		
3-ISOBUTYL-1-METHYLXANTHINE (IBMX)	Amitryptiline hydrochloride	GSK-1904529A	Ciprofibrate		
3-METHOXYCATECHOL	Amlodipine	GSK-2126458	Cisplatin		
3-METHYLORESELLINIC ACID	Amodiaquin dihydrochloride dihydrate	IDARUBICIN HCl	Clofarabine		
3-NOR-3-OXOPANASINSAN-6-OL	Amoxapine	IDOXURIDINE	Clofibrate		
3-OXOURSAN (28-13)OLIDE	Amoxicillin	IMATINIB BASE	Colchicine		
3-PINANONE OXIME	Amphotericin B	IMATINIB MESYLATE	CP-466722		
4,4'-DIISOTHIOCYANOSTILBENE-2,2'-SUFONIC ACID SODIUM SALT					
4,4'-DIMETHOXYDALBERGIONE	Ampicillin trihydrate	IRINOTECAN HCl (trihydrate)	CVT-313		
4-ACETOXYPHENOL	Ampronium hydrochloride	LAPATINIB	CW-069		
4-HYDROXY-6-METHYL PYRAN-2-ONE	Ampyrone	LAPATINIB TOSYLATE	CX-4945		
4-HYDROXYANTIPYRINE	Amyleanine hydrochloride	LBH-589	CX-4945 (sodium salt)		
4'-HYDROXYCHALCONE	Anastrozole	LENALIDOMIDE	CX-5461		
4'-HYDROXYFLAVANONE	Androsterone	LEUPROLIDE ACETATE	Cyclophosphamide		
4'-METHOXYCHALCONE	Anethole-trithione	LOMEGUATRIB	Cytarabine		
4-METHOXYDALBERGIONE	Aniracetam	LOMUSTINE	Cytidine		
4'-METHOXYFLAVONE	Antazoline hydrochloride	LONIDAMINE	D-64131		
4-METHYLDAPHNETIN	Anthralin	LY-294002	Dacarbazine		
4-METHYLESCULETIN	Antimycin A	LY-404039	Dacinostat		
4-NAPHTHALIMIDOBUTYRIC ACID	Antipyrine	LY-450139	Danusertib		
4-NONYLPHENOL	Antipyrine, 4-hydroxy	MASITINIB	Daun02		
		MDV-3100	Daunorubicin (Hydrochloride)		
4-O-METHYLPHLORACETOPHENONE	Apramycin	MELPHALAN	DBeQ		
5,7-DIHYDROXY-4-METHYLCOUMARIN	Aprepitant	MGCD-265	Decitabine		
5alpha-ANDROSTAN-3,17-DIONE	Arbutin	MITOMYCIN C	Dinaciclib		

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
5alpha-CHOLESTAN-3beta-OL-6-					
ONE	Argatroban	MITOXANTHRONE HCl		DMAT	
5alpha-CHOLESTANOL	Aripiprazole	MK-0822		Doxifluridine	
5-CHLOROINDOLE-2-CARBOXYLIC ACID	Artemisinin	MONENSIN SODIUM		Doxorubicin (hydrochloride)	
5-FLUOROINDOLE-2-CARBOXYLIC ACID	Articaine hydrochloride	MOTESANIB		Droxinostat	
5-HYDROXY-2',4',7,8-TETRAMETHOXYFLAVONE	Ascorbic acid	NAFARELIN ACETATE		E1	
5-HYDROXY-7-METHOXYSOFLAVONE	Asenapine maleate	NEDAPLATIN		Ellagic acid	
5-HYDROXYIMINOISOCARYOPHYLLENE	Astemizole	NELARABINE		ELR510444	
6,2'-DIMETHOXYFLAVONE	Atorvastatin	NERATINIB		ENMD-2076	
6,3'-DIMETHOXYFLAVONE	Atovaquone	NILOTINIB		ENMD-2076 (Tartrate)	
6,4'-DIHYDROXYFLAVONE	Atractyloside potassium salt	NILOTINIB HCl		Entinostat	
6,7,2',3',4'-PENTAMETHOXYISOFLAVONE	Atracurium besylate	NIMUSTINE HCl		Epirubicin (hydrochloride)	
6,7-DICHLORO-3-HYDROXY-2-QUINOXALINECARBOXYLIC ACID	Atropine sulfate monohydrate	NOLATREXED 2HCl		Epothilone B	
6alpha-METHYLPRENDISOLONE ACETATE	Auranofin	NVP-BEZ235		Epothilone D	
6-AMINONICOTINAMIDE	Avermectin B1a	NVP-BGJ398		EPZ004777	
6-HYDROXYFLAVONE	Azacyclonol	NVP-TAE684		EPZ011989	
7,2'-DIHYDROXYFLAVONE	Azacytidine-5	O6-BENZYLGUANINE		EPZ-5676	
7,3'-DIMETHOXYFLAVONE	Azaguanine-8	OLAPARIB		EPZ-6438	
7,4'-DIHYDROXYFLAVONE	Azaperone	OXALIPLATIN		Estramustine (phosphate sodium)	
7,4'-DIMETHOXYISOFLAVONE	Azapropazone	PACLITAXEL		Etoposide	
7,8-DIHYDROXYFLAVONE	Azathioprine	PAZOPANIB		ETP-46464	
7-AMINOCEPHALOSPORANIC ACID	Azelastine HCl	PELITINIB		EX-527	
7-DEACETOXY-7-OXOKHIVORIN	Azithromycin	PEMETREXED Na		Fasudil (Hydrochloride)	
7-DEACETYLKHIVORIN	Azlocillin sodium salt	PF-2341066 (Crizotinib)		Fenofibrate	
7-DESACETOXY-6,7-DEHYDROGEDUNIN	Aztreonam	PIRARUBICIN		FH535	
7-DEHYDROXYPYROGALLIN-4-CARBOXYLIC ACID	Bacampicillin hydrochloride	PLX-4032		Flavopiridol	
7-HYDROXY-2'-METHOXYSOFLAVONE	Bacitracin	PONATINIB		Flavopiridol (Hydrochloride)	
7-HYDROXYFLAVONE	Baclofen (R,S)	PROCARBAZINE HCl		Floxuridine	
7-METHOXYCHROMONE	Balsalazide Sodium	RALTITREXED		Fludarabine (phosphate)	
7-NITROINDAZOLE	Bambuterol hydrochloride	Regorafenib		Flumequine	
7-OXOCHOLESTERYL ACETATE	Beclomethasone dipropionate	RUBITECAN		Folinic acid (calcium salt pentahydrate)	
8beta-HYDROXYCARAPIN, 3,8-HEMIACETAL	Bemegride	SARACATINIB		Folinic acid (Calcium)	
8-HYDROXY-15,16-BISNOR-11-LABDEN-13-ONE	Benazepril HCl	SATRAPLATIN		Forodesine (hydrochloride)	
8-HYDROXYCARAPINIC ACID	Bendroflumethiazide	SB-408124		Fosbretabulin (disodium)	
ABACAVIR SULFATE	Benfluorex hydrochloride	SORAFENIB TOLSULATE		Fotemustine	
ABAMECTIN (avermectin B1a shown)	Benfotiamine	ST-836 HCl		FRAX486	
ABIETIC ACID	Benoxinate hydrochloride	SU-11274		G007-LK	
ABCSICID (cis,trans; +/-)	Benperidol	SUNITINIB		Ganetespib	
ACACETIN	Benserazide hydrochloride	SUNITINIB MALATE		Geldanamycin	
ACAMPROSATE CALCIUM	Benzamil hydrochloride	TANDUTINIB		Gemcitabine	
ACARBOSE	Benzathine benzylpenicillin	TARIQUIDAR		Gemcitabine (elaidate)	
ACEBUTOLOL HYDROCHLORIDE	Benzbromarone	TEGAFUR		Gemcitabine (Hydrochloride)	
ACECAINIDE HYDROCHLORIDE	Benzethonium chloride	TENIPOSIDE		Gemfibrozil	
ACECLIDINE	Benzocaine	TOK-001		Genz-644282	
ACECLOFENAC	Benzonatate	TOPOTECAN HCl		GSK 525762A	
ACEDAPSONE	Benzthiazide	TOREMIFENE CITRATE		GSK0660	
ACEDOBEN	Benztropine mesylate	TRAMETINIB		GSK-1070916	
ACEGLUTAMIDE	Benzydamine hydrochloride	TRIPTORELIN ACETATE		GSK126	
ACEMETACIN	Benzylpenicillin sodium	VADIMEZAN		GSK1324726A	
ACENEURAMIC ACID	Bephenium hydroxynaphthoate	VALRUBICIN		GSK2606414	
ACENOCOUMAROL	Bepridil hydrochloride	VANDETANIB		GSK2656157	
ACEPROMAZINE MALEATE	Beta-Escin	VATALANIB HCl		GSK269962A	
ACESULFAME POTASSIUM	Betahistine mesylate	VINBLASTINE SULFATE		GSK2801	
ACETAMINOPHEN	Betamethasone	VINCRISTINE SULPHATE		GSK343	
ACETAMINOSALOL	Betaxolol hydrochloride	VINDESINE SULFATE		GSK3787	
ACETANILIDE	Betazolo hydrochloride	VINORELBINE BITARTRATE		GSK429286A	
ACETARSOL	Bethanechol chloride	VX-680		GSK461364	
ACETAZOLAMIDE	Bezaflibrate	ZOSUQUIDAR		GSK503	
ACETOHEXAMIDE	Bicalutamide			GSK-5959	
ACETOHYDROXAMIC ACID	Bifonazole			GSK-923295	
ACETOPHENAZINE MALEATE	Biotin			GSK-J1	
ACETOSYRINGONE	Biperiden hydrochloride			GSK-J2	
ACETRAZOCIC ACID	Bisacodyl			GSK-J4	
ACETYL HYMETOCHROME	Bisoprolol fumarate			GW 501516	
ACETYL ISOGAMBOGIC ACID	Bosentan			GW843682X	
ACETYLCHOLINE CHLORIDE	Bretyllium tosylate			GW9662	
ACETYLCYSTEINE	Brinzolamide			Hesperadin	
ACETYLGLUCOSAMINE	Bromhexine hydrochloride			HMN-214	
ACETYL-L-LEUCINE	Bromocryptine mesylate			Hydroxyfasudil (hydrochloride)	
ACETYLPHENYLALANINE	Bromopride			Hydroxyurea	
ACEXAMIC ACID	Bromoperidol			I-BET151	

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
ACIPIMOX	Brompheniramine maleate			Idarubicin (hydrochloride)	
ACONITIC ACID	Bucladesine sodium salt			Ifosfamide	
ACONITINE	Budesonide			Inauhzin	
ACRIFLAVINIUM					
HYDROCHLORIDE	Bufexamac			INO-1001	
ACRISORCIN	Buflomedil hydrochloride			IPA-3	
ACTARIT	Bumetanide			Irinotecan (hydrochloride trihydrate)	
ACTEIN	Bupivacaine hydrochloride			Irinotecan (hydrochloride)	
ACTINONIN	Bupropion hydrochloride			Ispinesib	
ACTINOQUINOL SODIUM	Buspirone hydrochloride			ISRB (trans-isomer)	
ACYCLOVIR	Busulfan			JIB-04	
ADAPALENE	Butacaine			JQ-1 (carboxylic acid)	
ADENINE	Butalbital			JW 55	
ADENOSINE	Butamben			Kenpaulrone	
ADENOSINE PHOSPHATE	Butenafine Hydrochloride			KU-55933	
ADIPHENINE HYDROCHLORIDE	Butoconazole nitrate			KU-57788	
ADONITOL	Butylparaben			KU-60019	
ADRENOLONE HYDROCHLORIDE	Butylscopolammonium (n-)				
AFALANINE	bromide			L-165041	
AGARIC ACID	Caffeine			L189	
AGELASINE (stereochemistry of diterpene unknown)	Calcipotriene			LDC000067	
AGMATINE SULFATE	Camptothecine (S,+)			LDN-57444	
AJMALINE	Camylofine chlorhydrate			LEE011	
AKLOMIDE	Candesartan			LEE011 (succinate)	
ALANYL-dL-LEUCINE	Canrenoic acid potassium salt			Levoleucovorin (Calcium)	
ALAPROCLATE	Canrenone			Levomefolate (calcium)	
ALBENDAZOLE	Captopril			Levomefolic acid	
ALBUTEROL	Carbachol			Lexibulin	
ALCLOMETAZONE	Carbadox			LMF-A13	
DIPROPIONATE	Carbamazepine				
ALENDRONATE SODIUM	Carbarsone			LMK-235	
ALEURETIC ACID	Carbenoxolone disodium salt			Lomeguatrib	
ALEXIDINE HYDROCHLORIDE	Carbetapentane citrate			Lomustine	
ALFUZOSIN HYDROCHLORIDE	Carbidopa			LY2603618	
ALGESTONE ACETOPHENIDE	Carbimazole			LY2835219	
ALISKIREN HEMIFUMARATE	Carbinoxamine maleate salt			M344	
ALIZARIN	Carisoprodol			MC1568	
ALLANTOIN	Carprofen			Melphalan	
ALLOPREGNANOLONE	Carteolol hydrochloride			Methotrexate	
ALLOPURINOL	Carvedilol			Miriplatin	
ALLOXAN	Catharanthine			Mitomycin C	
ALLYLISOTHIOCYANATE	Cefaclor hydrate			Mitoxantrone (dihydrochloride)	
ALLYLTHIOUREA	Cefadroxil			MK-1775	
ALMOTRIPTAN	Cefazolin sodium salt			MK-4827	
ALOIN	Cefdinir			MK-4827 (tosylate)	
alpha-CYANO-3-HYDROXYCINNAMIC ACID	Cefepime hydrochloride			MK-5108	
alpha-CYANO-4-HYDROXYDEOXYCHOLIC ACID	Cefixime			ML-323	
alpha-MANGOSTIN	Cefmetazole sodium salt			ML324	
alpha-METHYL-L-TYROSINE	Cefoperazone dihydrate				
alpha-TOCHOPHEROL	Ceforanide			MLN0905	
alpha-TOCHOPHERYL ACETATE	Cefotaxime sodium salt			MLN8054	
alpha-TOXICAROL (dl)	Cefotetan			MM-102 (trifluoroacetate)	
ALPRENOLOL	Cefotiam hydrochloride			MN-64	
ALRESTATIN	Cefoxitin sodium salt			Mocetinostat	
ALTHIAZIDE	Cefsulodin sodium salt			Mps1-IN-1	
ALTRENOGEST	Ceftazidime pentahydrate			MS436	
ALTRETAMINE	Cefuroxime sodium salt			Nelarabine	
ALVERINE CITRATE	Celecoxib			NG 52	
AMANTADINE HYDROCHLORIDE	Celiprolol HCl			NMS-1286937	
AMBROXOL HYDROCHLORIDE	Cephalosporanic acid, 7-amino			NMS-873	
AMCINONIDE	Cephalothin sodium salt			Nocodazole	
AMIFOSTINE	Cetirizine dihydrochloride				
AMIKACIN SULFATE	Chenodiol			NU 7026	
AMILORIDE HYDROCHLORIDE	Chicago sky blue 6B			NU2058	
AMINACRINE	Chlorambucil			NVP-AUY922	
AMINOACPROIC ACID	Chloramphenicol			NVP-HSP990	
AMINOCYCLOPROPANE CARBOXYLIC ACID	Chlorcyclizine hydrochloride			NVP-LCQ195	
YLIC ACID	Chlorhexidine			OF-1	
AMINOETHOXYDIPHENYLBORA NE	Chlormadinone acetate			Olaparib	
AMINOETHYLISOTHIOUREA				Orotic acid	
DIHYDROBROMIDE	Chlormezanone			OTX-015	
AMINOGLUTETHIMIDE	Chloropyramine hydrochloride				
AMINOHIPPURIC ACID	Chloroquine diphosphate			Oxaliplatin	
AMINOHYDROXYBUTYRIC ACID	Chlorothiazide			Oxolinic acid	
AMINOLEVULINIC ACID				P 22077	
HYDROCHLORIDE	Chlorotrianisene			P005091	
AMINOPENTAMIDE SULFATE	Chloroxine			Pacitaxel	
AMINOPTERIN	Chlorpheniramine maleate				
AMINOPYRINE	Chlorphenesin carbamate			Palbociclib	
AMINOSALICYLATE SODIUM	Chlorpromazine hydrochloride			Palbociclib (hydrochloride)	
AMINOTHIAZOLE	Chlorpropamide			Palbociclib (istethionate)	
				Palifosfamide	
				Panobinostat	
				Parthenolide	

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
AMIODARONE HYDROCHLORIDE	Chlorprothixene hydrochloride			PCI-24781	
AMISULPRIDE	Chlortetracycline hydrochloride			Pemetrexed (disodium)	
AMITRAZ	Chlorthalidone			hemipenta hydrate) (1:2:2.5)	
AMITRIPTYLINE				Pemetrexed (disodium)	
HYDROCHLORIDE	Chlorzoxazone				
AMLEXANOX	Ciclopirox ethanolamine			PF-03814735	
AMLODIPINE BESYLATE	Cilnidipine			PF-3758309	
AMMONIUM LACTATE	Cilostazol			PFI-1	
AMODIAQUINE				PFI-2 (hydrochloride)	
DIHYDROCHLORIDE	Cimetidine				
AMOROLFINE HYDROCHLORIDE	Cinnarizine			PFI-4	
AMOXAPINE	Cinoxacin			PHA-767491 (hydrochloride)	
AMOXICILLIN	Ciprofibrate			PHA-793887	
	Ciprofloxacin hydrochloride			PHA-848125	
AMPHOTERICIN B	monohydrate				
AMPICILLIN SODIUM	Cisapride			PIK-75	
AMPIROXICAM	Citalopram Hydrobromide			Pimelic Diphenylamide 106	
AMPROLIUM	Cladribine			Pimelic Diphenylamide 106	
AMPYZINE SULFATE	Clarithromycin			(analog)	
AMSACRINE	Clavulanate potassium salt			Pioglitazone (hydrochloride)	
AMYGDALIN	Clebopride maleate			Pirarubicin (Hydrochloride)	
AMYLENE HYDRATE	Clemastine fumarate			PJ34 (hydrochloride)	
ANABASAMINE				Podophyllotoxin	
HYDROCHLORIDE	Clemizole hydrochloride			Poloxin	
ANABASINE HYDROCHLORIDE	Clenbuterol hydrochloride				
ANAGRELIDE HYDROCHLORIDE	Clidinium bromide			PR-619	
ANASTROZOLE	Clinafloxacin			Pracinostat	
ANCITABINE HYDROCHLORIDE	Clindamycin hydrochloride			Pralatrexate	
ANDROGRAPHOLIDE	Clioquinol			PRT4165	
ANDROSTA-1,4-DIEN-3,17-				Purvalanol A	
DIONE	Clobetasol propionate			Purvalanol B	
ANDROSTERONE	Clobutinol hydrochloride				
ANDROSTERONE ACETATE	Clocortolone pivalate			PU-WS13	
ANETHOLE	Clodronate			PVR-41	
ANGOLENSIN (R)	Clofazimine			Pyridostatin (hydrochloride)	
ANHYDROBRAZILIC ACID	Clofibrate			Primumethamine	
ANIRACETAM	Clofibric acid			PYZD-4409	
ANISINDIONE	Clofiumil tosylate			Remodelin (hydrobromide)	
				Resminostat (hydrochloride)	
				Reversine	
ANISODAMINE HYDROBROMIDE	Clomiphene citrate (Z,E)				
ANTAZOLINE PHOSPHATE	Clomipramine hydrochloride			RG108	
ANTHOTHECOL	Clonidine hydrochloride			RG2833	
ANTHRALIN	Clonixin Lysinate			RGF966	
ANTHRAQUINONE	Clopamide			Rigosertib (sodium)	
ANTIAROL	Cloperastine hydrochloride			RITA	
ANTIMONY POTASSIUM				RKI-1447	
TARTRATE TRIHYDRATE	Clorgyline hydrochloride				
ANTIMYCIN A (A1 shown)	Clorsulon			Ro3280	
ANTIPYRINE	Closantel			Ro-3306	
APHYLIC ACID	Cotrimazole			Roscovitine	
APIGENIN	Cloxacillin sodium salt			Rosiglitazone	
APIGENIN DIMETHYL ETHER	Clozapine			Rosiglitazone (maleate)	
APIOLE	Colchicine			Rucaparib (phosphate)	
				RVX-208	
APOMORPHINE					
HYDROCHLORIDE	Colistin sulfate			SB1317	
APOTOXICAROL	Corticosterone			SB-743921	
APRAMYCIN SULFATE	Cortisol acetate			SBE13 (Hydrochloride)	
ARABITOL	Cortisone			SCR7	
ARBUTIN	Cromolyn disodium salt			Scriptaid	
ARECOLINE HYDROBROMIDE	Crotamiton			SGC0946	
ARGININE HYDROCHLORIDE	Cyanocobalamin			SGC707	
ARIPIPRAZOLE	Cyclizine hydrochloride			SGI-1027	
ARISTOLOCIC ACID	Cyclobenzaprine hydrochloride			Sirtinol	
ARMODAFINIL	Cycloheximide			SJB-043	
ARSANILIC ACID	Cyclopentiazide			SLx-2119	
ARSENIC TRIOXIDE	Cyclopentolate hydrochloride			SN-38	
ARTEMISININ	Cyclophosphamide			SNS-032	
ARTENIMOL	Cyclosporin A			SNS-314	
ARTESUNATE	Cyproheptadine hydrochloride			Sodium Butyrate	
ARTHONIOIC ACID	Cyproterone acetate			Sodium phenylbutyrate	
ASARYLALDEHYDE	Cytarabine			SP2509	
ASCORBIC ACID	Dacarbazine			SR-3677	
ASCORBYL PALMITATE	Danazol			SRT 1720 (Hydrochloride)	
ASIATIC ACID	Dantrolene sodium salt			SRT 2104	
ASPARTAME	Dapsone			Streptozocin	
ASPIRIN	Darifenacin hydrobromide			SU9516	
ASTAXANTHIN	Daunorubicin hydrochloride			T0070907	
ASTEMIZOLE	D-cycloserine			TAK-901	
ASTRAGALOSIDE IV	Debrisoin sulfate			TAK-960	
ATENOLOL	Decamethonium bromide			TAME	
ATOMOXETINE					
HYDROCHLORIDE	Deferoxamine mesylate			TAS-103 (dihydrochloride)	
ATORVASTATIN CALCIUM	Deflazacort			TBB	
ATOVAQUONE	Dehydrocholic acid			Tegafur	
	Dehydroisoandrosterone 3-				
ATRACURIUM BESYLATE	acetate			Temozolamide	
ATRANORIN	Demecarium bromide			Teniposide	

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ATROPINE OXIDE	Demeclocycline hydrochloride			Tenovin-1	
ATROPINE SULFATE	Denatonium benzoate			Teprenone	
AURAPTENE	Deoxycorticosterone			TG003	
AURIN TRICARBOXYLIC ACID	Deptropine citrate			TG101209	
AVERMECTIN A1a	Dequalinium dichloride			TG-101348	
AVOBENZONE	Desipramine hydrochloride			TH287	
AVOCADENE	Desloratadine			TH588	
AVOCADENE ACETATE	Dexamethasone acetate			Thiazovivin	
AVOCADENOFLURAN	Dexfenfluramine hydrochloride			Thio-TEPA	
AVOCADENE ACETATE	Dextromethorphan				
AVOCADENOFLURAN	Hydrobromide monohydrate			THZ1	
AVOCATIN A	Diacerein			THZ1 (Hydrochloride)	
AVOCATIN B	Diazoxide			Tipiracil (hydrochloride)	
AZACITIDINE	Dibenzepine hydrochloride			Topotecan (Hydrochloride)	
AZADIRACHTIN	Dibucaine			Tozasertib	
AZAPERONE	Dichlorphenamide			Treosulfan	
AZASERINE	Diclazuril			Triapine	
AZATADINE MALEATE	Diclofenac sodium			Trichostatin A	
AZATHIOPRINE	Dicloxacillin sodium salt hydrate			Triciribine	
AZELAIC ACID	Dicumarol			Triclabendazole	
AZELASTINE HYDROCHLORIDE	Dicyclomine hydrochloride			Trifluorothymidine	
AZILSARTAN KAMEDOXOMIL	Didanosine			Trimethoprim	
AZITHROMYCIN	Dienestrol			Troglitazone	
AZLOCILLIN SODIUM	Diethylcarbamazine citrate			TPP 22	
AZOBENZENE	Diethylstilbestrol			Tubastatin A (Hydrochloride)	
BACAMPICILLIN	Diflorasone Diacetate			Tubastatin-A	
HYDROCHLORIDE	Diflunisal				
BACCATIN III	Digitoxigenin			TZ9	
BACITRACIN	Digoxigenin			UF010	
BACLOFEN	Digoxin			UNC 0631	
BAICALEIN	Dihydroergotamine tartrate			UNC 669	
BAICALIN	Dihydrostreptomycin sulfate			UNC0379	
BALSALAZIDE DISODIUM	Dilazep dihydrochloride			UNC0642	
				UNC1215	
BAMBUTEROL HYDROCHLORIDE	Diloxanide furoate				
BARBITAL	Diltiazem hydrochloride			UNC1999	
BATYL ALCOHOL	Dimaprit dihydrochloride			UPF 1069	
BECLAMIDE	Dimenhydrinate			Uramustine	
BECLOMETHASONE				Valproic acid (sodium salt)	
DIPROPIONATE	Dimethadione				
BEKANAMYCIN SULFATE	Dimethisoquin hydrochloride			VE-821	
BEMOTRIZINOL	Dinoprost trometamol			VE-822	
BENAZEPRIL HYDROCHLORIDE	Diosmin			Veliparib (dihydrochloride)	
BENDROFLUMETHIAZIDE	Dioxybenzone			VER-155008	
BENFLUOREX HYDROCHLORIDE	Diperodon hydrochloride			Vidarabine	
BENFOTIAMINE	Diphemanil methylsulfate			Vinblastine	
				Vinblastine (sulfate)	
BENOXINATE HYDROCHLORIDE	Diphenhydramine hydrochloride				
BENSERAZIDE HYDROCHLORIDE	Diphenidol hydrochloride			Vincristine (sulfate)	
BENURESTAT	Diphenylpyraline hydrochloride			Vinflunine (Tartrate)	
BENZALKONIUM CHLORIDE	Dipivefrin hydrochloride			Volasertib	
BENZBROMARONE	Diprophylline			Vorinostat	
BENZETHONIUM CHLORIDE	Dipyridamole			WAY-262611	
BENZOCAINE	Dipyrrone			WDR5-0103	
BENZOCLIDINE	Dirithromycin			WIKI4	
BENZOIC ACID	Disopyramide			Wortmannin	
BENZONATATE	Disulfiram			WP1130	
BENZOXIQUINE	Dizocilpine maleate			Wy-14643	
BENZOYL PEROXIDE	DO 897/99			XAV-939	
BENZOYLPS	Dobutamine hydrochloride			XL228	
BENZTHIAZIDE	Docetaxel			XL413 (hydrochloride)	
BENZYDAMINE				Y-27632 (dihydrochloride)	
HYDROCHLORIDE	Dolasetron mesilate				
BENZYL ALCOHOL	Domperidone			Zebularine	
BENZYL BENZOATE	Dopamine hydrochloride			ZLN005	
BENZYL ISOTHIOCYANATE	Dorzolamide hydrochloride			ZM-447439	
BENZYLHYDRAZINE				β-Lapachone	
HYDROCHLORIDE	Dosulepin hydrochloride				
BEPHENIUM					
HYDROXYNAPTHOATE	Doxazosin mesylate				
BEPRIDIL HYDROCHLORIDE	Doxepin hydrochloride				
BERBAMINE HYDROCHLORIDE	Doxofylline				
BERBERINE CHLORIDE	Doxorubicin hydrochloride				
BERGAPTEN	Doxycycline hydrochloride				
BERGENIN	Doxylamine succinate				
beta-AMYRIN	Drofenine hydrochloride				
beta-AMYRIN ACETATE	Droperidol				
beta-CAROTENE	Dropropizine (R,S)				
beta-CARYOPHYLLENE ALCOHOL	Dyclonine hydrochloride				
beta-ESCI	Dydrogesterone				
BETAHISTINE HYDROCHLORIDE	Ebselen				
BETAINE HYDROCHLORIDE	Eburnamonine (-)				
BETAMETHASONE	Econazole nitrate				
BETAMETHASONE 17,21-					
DIPROPIONATE	Edrophonium chloride				
BETAMETHASONE ACETATE	Efavirenz				
BETAMETHASONE SODIUM					
PHOSPHATE	Emedastine				

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
BETAMETHASONE VALERATE	Enalapril maleate				
BETAMIPRON	Enilconazole				
beta-NAPHTHOL	Enoxacin				
beta-SITOSTEROL	Entacapone				
BETAXALOL HYDROCHLORIDE	Epiandrosterone				
BETAZOLE HYDROCHLORIDE	Epirizole				
BETHANECHOL CHLORIDE	Epitiostanol				
BETULIN	Equilin				
BETULINIC ACID	Erlotinib				
BEZAFIBRATE	Erythromycin				
BICALUTAMIDE	Escitalopram				
BICUCULLINE (+)	Eserine hemisulfate salt				
BICUCULLINE(-) METHIODIDE	Esmolol hydrochloride				
BIFONAZOLE	Estradiol Valerate				
BILIRUBIN	Estradiol-17 beta				
BIOCHANIN A	Estriol				
BIOTIN	Estrone				
BIPERIDEN	Estropipate				
BISABOLOL ACETATE	Etanidazole				
BISACODYL	Ethacrynic acid				
BISANHYDRORUTILANTINONE	Ethambutol dihydrochloride				
BISMUTH SUBSALICYLATE	Ethamivan				
BISOCTRIZOLE	Ethamsylate				
BISOPROLOL FUMARATE	Ethaverine hydrochloride				
BISPHENOL A	Ethinylestradiol				
BISSALICYL FUMARATE	Ethionamide				
BITHIONATE SODIUM	Ethisterone				
BITOSCANATE	Ethopropazine hydrochloride				
BIXIN	Ethosuximide				
BLEOMYCIN (bleomycin B2 shown)	Ethotoxin				
BOLDINE	Ethoxyquin				
BORNYL ACETATE	Ethyndiol diacetate				
BOVINOCIDIN	Ethynelestradiol 3-methyl ether				
BRAZILEIN	Etidronic acid, disodium salt				
BRAZILIN	Etifedin				
BRINZOLAMIDE	Etilefrine hydrochloride				
BROMHEXINE HYDROCHLORIDE	Etodolac				
BROMINDIONE	Etofenamate				
BROMOCRIPTINE MESYLATE	Etofylline				
BROMOPRIDE	Etomidate				
BROMPERIDOL	Etoposide				
BROMPHENIRAMINE MALEATE	Etoricoxib				
BRONOPOL	Etretinate				
BROXALDINE	Eucatropine hydrochloride				
BROXYQUINOLINE	Exemestane				
BRUCINE	Fadrozole hydrochloride				
BUCEPIN	Famciclovir				
BUCLADESINE	Famotidine				
BUDESONIDE	Famprofazone				
BUFEXAMAC	Felbinac				
BUFLOMEDII HYDROCHLORIDE	Felodipine				
BUMETANIDE	Fenbendazole				
BUPIVACAINE HYDROCHLORIDE	Fenbufen				
BUPROPION	Fendiline hydrochloride				
BURAMATE	Fenipentol				
BUSPIRONE HYDROCHLORIDE	Fenofibrate				
BUSSEIN	Fenoprofen calcium salt				
BUSULFAN	dihydrate				
BUTACAINE	Fenoterol hydrobromide				
BUTAMBEN	Fenspiride hydrochloride				
BUTOCONAZOLE	Fentiazac				
BUTYL PARABEN	Fexofenadine HCl				
BUTYLATED HYDROXYANISOLE	Finasteride				
BUTYLATED HYDROXYTOLUENE	Fipexide hydrochloride				
CADAVERINE TARTRATE	Flavoxate hydrochloride				
CADIN-4-EN-10-OL	Flecainide acetate				
CAFFEIC ACID	Fleroxacin				
CAFFEINE	Florfenicol				
CALCIUM GLUCEPTATE	Floxuridine				
CAMPHOR (1R)	Flubendazol				
CAMPTOTHECIN	Flucloxacillin sodium				
CAMYLOFINE	Fluconazole				
DIHYDROCHLORIDE	Flucytosine				
CANAVANINE	Fludarabine				
CANDESARTAN	Fludrocortisone acetate				
CANDESARTAN CILEXTIL	Flufenamic acid				
CANDICIDIN	Flumequine				
CANRENOIC ACID, POTASSIUM SALT	Flumethasone				
CANRENONE	Flunarizine dihydrochloride				
CANTHARIDIN	Flunisolide				
CANTHAXANTHIN (euglenanone)	Flunixin meglumine				
CAPECITABINE	Fluocinolone acetonide				
CAPOBENIC ACID	Fluocinonide				
CAPREOMYCIN SULFATE	Fluorometholone				
CAPSAICIN	Fluoxetine hydrochloride				
CAPSANTHIN	Fluphenazine dihydrochloride				

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
CAPTAMINE	Flurandrenolide				
CAPTOPRIL	Flurbiprofen				
CARAPIN	Fluspirilene				
CARAPIN-8(9)-ENE	Flutamide				
CARBACHOL	Fluticasone propionate				
CARBADOX	Fluvastatin sodium salt				
CARBAMAZEPINE	Flvoxamine maleate				
CARBARSONE	Folic acid				
CARBENICILLIN DISODIUM	Folinic acid calcium salt				
CARBENOXOLONE SODIUM	Fomepizole				
CARBETAPENTANE CITRATE	Formestane				
CARBIDOPA	Formoterol fumarate				
CARBIMAZOLE	Fosfosal				
CARBINOXAMINE MALEATE	Fosinopril				
CARBOPLATIN	Fulvestrant				
CARGLUMIC ACID	Furaltadone hydrochloride				
CARISOPRODOL	Furazolidone				
CARMINIC ACID	Furosemide				
CARMOFUR	Fursultiamine Hydrochloride				
CARMUSTINE	Fusidic acid sodium salt				
CARNITINE (dl)					
HYDROCHLORIDE	Gabapentin				
CARNOSINE	Gabazine bromide				
CARPROFEN	Gabexate mesilate				
CARSALAM	Ganthamidine hydrobromide				
CARTEOLOL HYDROCHLORIDE	Gallamine triethiodide				
CARVEDILOL	Ganciclovir				
CARVEDILOL PHOSPHATE	Gatifloxacin				
CARYOPHYLLENE OXIDE	GBR 12909 dihydrochloride				
CARYOPHYLLENE [t(-)]	Gefitinib				
CARZENIDE	Gemcitabine				
CASANTHRANOL [cascaroside A shown]	Gemfibrozil				
CATECHIN PENTAACETATE	Gentamicine sulfate				
CATECHIN TETRAMETHYLETHER	Gestrinone				
CEAROIN	Glafenine hydrochloride				
CEDRELONE	Glibenclamide				
CEDROL	Gliclazide				
CEDRYL ACETATE	Glimepiride				
CEFACLOR	Glipizide				
CEFADROXIL	Gliquidone				
CEFALONIUM	Glutethimide, para-amino				
CEFAMANDOLE NAFADE	Glycopyrrolate				
CEFAMANDOLE SODIUM	Granisetron				
CEFAZOLIN SODIUM	Griseofulvin				
CEFDINIR	Guaiacol				
CEFDITORIN PIVOXIL	Guaiifenesin				
CEFPIME HYDROCHLORIDE	Guanabenz acetate				
CEFMENOXIME					
HYDROCHLORIDE	Guanadrel sulfate				
CEFMETAZOLE SODIUM	Guanethidine sulfate				
CEFONICID SODIUM	Guanfacine hydrochloride				
CEFOPERAZONE	Halcinonide				
CEFORANIDE	Halofantrine hydrochloride				
CEFOTAXIME SODIUM	Haloperidol				
CEFOTETAN	Haloprogin				
CEFOXITIN SODIUM	Hemicholinium bromide				
CEFPIRAMIDE	Heptaminol hydrochloride				
CEFPODOXIME PROXETIL	Hesperidin				
CEFPROZIL	Hexachlorophene				
	Hexamethonium dibromide dihydrate				
CEFSULODIN SODIUM					
CEFTAZIDIME	Hexestrol				
CEFTIBUTEN	Hexetidine				
CEFTIOFUR HYDROCHLORIDE	Hexylcaine hydrochloride				
CEFTRIAXONE SODIUM	Homatropine hydrobromide				
TRIHYDRATE	(R,S)				
	Homochlorcyclizine				
CEFUROXIME AXETIL	dihydrochloride				
CEFUROXIME SODIUM	Homosalate				
CELASTROL	Hycanthone				
CELECOXIB	Hydralazine hydrochloride				
CELLOBIOSE (D[+])	Hydrochlorothiazide				
CEPHALEXIN	Hydrocortisone base				
CEPHALOSPORIN C SODIUM	Hydrofumethiazide				
CEPHALOTAXINE	Hydroxychloroquine sulfate				
CEPHALOTHIN SODIUM	Hydroxytacrine maleate (R,S)				
CEPHAPIRIN SODIUM	Hydroxyzine dihydrochloride				
CEPHARANTHINE	Hymecromone				
CEPHRADINE	Hyoscymine (L)				
CETIRIZINE HYDROCHLORIDE	Ibandronate sodium				
CETRIMONIUM BROMIDE	Ibudilast				
CETYLPYRIDINIUM CHLORIDE	Ibutilide fumarate				
CHAULMOOGRIC ACID	Idazoxan hydrochloride				
CHAULMOOGRIC ACID, ETHYL					
ESTER	Idebenone				
CHENODIOL	Idoxuridine				
CHINIFON	Ifenprodil tartrate				
CHLORALOSE	Ifosfamide				
CHLORAMBUCIL	Imatinib				

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
CHLORAMINE-T	Imidurea				
CHLORAMPHENICOL	Imipenem				
CHLORAMPHENICOL					
PALMITATE	Imipramine hydrochloride				
CHLORAMPHENICOL SODIUM					
SUCCINATE	Imiquimod				
CHLORANIL	Indapamide				
CHLORAZANIL HYDROCHLORIDE	Indatraline hydrochloride				
CHLORCYCLIZINE					
HYDROCHLORIDE	Indomethacin				
CHLORHEXIDINE					
DIHYDROCHLORIDE	Indoprofen				
CHLORINDANOL	Iobenguane sulfate				
CHLORINDIONE	Locetamic acid				
CHLORMADINONE ACETATE	Iodipamide				
CHLORMEZANONE	Iodixanol				
CHLORMIDAZOLE	Iohexol				
CHLOROBUTANOL	Iopamidol				
CHLOROCRESOL	Iopanoic acid				
CHLOROGENIC ACID	Iopromide				
CHLOROGUANIDE					
HYDROCHLORIDE	Ioversol				
CHLOROPHYLLIDE Cu COMPLEX					
Na SALT	Ioxaglic acid				
CHLOROPYRAMINE					
HYDROCHLORIDE	Iproniazide phosphate				
CHLOROQUINE DIPHOSPHATE	Ipsapirone				
	Irinotecan hydrochloride				
CHLORTHIAZIDE	Trihydrate				
CHLOROXINE	Irsogladine maleate				
CHLOROXYLENOL	Isocarboxazid				
CHLORPHENIRAMINE MALEATE	Isoconazole				
CHLORPROMAZINE	Isoetharine mesylate salt				
CHLORPROPAMIDE	Isoflupredone acetate				
CHLORPROTHIXENE					
HYDROCHLORIDE	Isometheptene mucate				
CHLORPYRIFOS	Isoniazid				
CHLORQUINALDOL	Isopropamide iodide				
CHLORTETRACYCLINE					
HYDROCHLORIDE	Isopyrin hydrochloride				
	Isoquinoline, 6,7-dimethoxy-1-methyl-1,2,3,4-tetrahydro,				
CHLORTHALIDONE	Hydrochloride				
CHLORZOXAZONE	Iosorbide dinitrate				
CHOLECALCIFEROL	Isosorbide mononitrate				
COLEST-5-EN-3-ONE	Isotretinoin				
COLESTAN-3-ONE	Isoxicam				
CHOLESTANE	Isoxsuprine hydrochloride				
CHOLESTEROL	Isradipine				
CHOLESTERYL ACETATE	Itopride				
CHOLIC ACID	Itraconazole				
CHOLIC ACID, METHYL ESTER	Ivermectin				
CHOLINE CHLORIDE	Josamycin				
CHROMOCARB	Kanamycin A sulfate				
CHRYSANTHEMIC ACID	Ketanserin tartrate hydrate				
CHRYSANTHEMIC ACID, ETHYL ESTER	Ketoconazole				
CHRYSANTHEMYL ALCOHOL	Ketoprofen				
CHYSAROBIN	Ketorolac tromethamine				
CHYSIN	Ketotifen fumarate				
CHYSIN DIMETHYL ETHER	Khellin				
CHYSOPHANOL	L(-)-vesamicol hydrochloride				
CIANIDANOL	Labetalol hydrochloride				
CICLOPIROX OLAMINE	Lacidipine				
CILOSTAZOL	Lamivudine				
CIMETIDINE	Lamotrigine				
CIMICIFUGOSIDE H1	Lanatoside C				
CINCHONIDINE	Lansoprazole				
CINCHONINE	Leflunomide				
CINCHOPHEN	Letrozole				
CINNAMIC ACID	Levalbuterol hydrochloride				
CINNARAZINE	Levamisole hydrochloride				
CINOCTRAMIDE	Levetiracetam				
CINOXACIN	Levocabastine hydrochloride				
CINROMIDE	Levodopa				
CINTRIAMIDE	Levonorgestrel				
CIPROFIBRATE	Levopropoxyphene napsylate				
CIPROFLOXACIN	Lidocaine hydrochloride				
CISPLATIN	Lidoflazine				
CITALOPRAM HYDROBROMIDE	Lincomycin hydrochloride				
CITICOLINE	Linezolid				
CITIOLONE	Liothyronine				
CITRININ	Liranaftate				
CITROPTEN	Lisinopril				
CITRULLINE	Lithocholic acid				
CLARITHROMYCN	Lofexidine				
CLEMASTINE FUMARATE	Lomefloxacin hydrochloride				
CLEMIZOLE HYDROCHLORIDE	Loperamide hydrochloride				

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
CLENBUTEROL HYDROCHLORIDE	Loracarbef				
CLIDINIUM BROMIDE	Loratadine				
CLIMBAZOLE	Lorglumide sodium salt				
CLINAFOXACIN					
HYDROCHLORIDE	Losartan				
CLINDAMYCIN HYDROCHLORIDE	Lovastatin				
CLINDAMYCIN PALMITATE					
HYDROCHLORIDE	Loxapine succinate				
CLIQUINOL	Luteolin				
CLOBETASOL PROPIONATE	Lymecycline				
CLOFARABINE	Lynestrenol				
CLOFAZIMINE	Mafenide hydrochloride				
CLOFIBRATE	Maprotiline hydrochloride				
CLOFIBRIC ACID	Mebendazole				
CLOFOCTOL	Mebeverine hydrochloride				
	Mebhydroline 1,5-naphthalenedisulfonate				
CLOMIPHENE CITRATE					
CLOMIPRAMINE					
HYDROCHLORIDE	Mecamylamine hydrochloride				
CLONIDINE HYDROCHLORIDE	Meclocycline sulfosalicylate				
CLOPERASTINE	Meclofenamic acid sodium salt				
HYDROCHLORIDE	monohydrate				
CLOPIDOGREL SULFATE	Meclofenoxate hydrochloride				
CLOPIDOL	Meclozine dihydrochloride				
CLORGILINE HYDROCHLORIDE	Medrysone				
CLORSULON	Mefenamic acid				
CLOSANTEL	Mefexamide hydrochloride				
CLOTRIMAZOLE	Mefloquine hydrochloride				
CLOVANEDIOL DIACETATE	Megestrol acetate				
CLOXAСILLIN SODIUM	Meglumine				
CLOXYQUIN	Melatonin				
CLOZAPINE	Melengestrol acetate				
COLCHICEINE	Meloxicam				
COLCHICINE	Memantine Hydrochloride				
COLESEVALAM					
HYDROCHLORIDE (high mol wt copolymer @10mg/ml)	Mepenzolate bromide				
COLFORSIN	Mephenesin				
COLISTIMETHATE SODIUM	Mephentermine hemisulfate				
COLISTIN SULFATE	Mephenytoin				
CONESSINE	Mepivacaïne hydrochloride				
CONVALLATOXIN	Meprylcaine hydrochloride				
CORALYNE CHLORIDE	Meptazinol hydrochloride				
CORTISONE	Merbromin				
CORTISONE ACETATE	Mercaptopurine				
CORYNANTHINE	Meropenem				
COTARNINE CHLORIDE	Mesalamine				
COTININE	Mesna				
COUMARIN	Mesoridazine besylate, Metaproterenol sulfate, orciprenaline sulfate				
COUMOPHOS	Mephenesin				
CREATININE	Mephentermine hemisulfate				
CRESOL	Mephenytoin				
CRESOPIRINE	Mepivacaïne hydrochloride				
CROMOLYN SODIUM	Methacholine chloride				
CROTAMITON	Methacycline hydrochloride				
CRUSTECDYSONE	Methantheline bromide				
CRYOFLURANE	Methapyrilene hydrochloride				
CRYPTOTANSHINONE	Methazolamide				
CULMORIN	Methenamine				
CURCUMIN	Methiazole				
CYACETACIDE	Methimazole				
CYANOCOBALAMIN	Methiothepin maleate				
CYCLAMIC ACID	Methocarbamol				
CYCLANDELATE	Methotrexate				
CYCLIZINE	Methotriimeprazine maleat salt				
CYCLOBENZAPRINE					
HYDROCHLORIDE	Methoxamine hydrochloride				
CYCLOHEXIMIDE	Methyl benzethonium chloride				
CYCLOLEUCINE	Methylatropine nitrate				
CYCLOPENTOLATE					
HYDROCHLORIDE	Methyldopa (L,-)				
CYCLOPHOSPHAMIDE	Methyldopate hydrochloride				
CYCLOSERINE (D)	Methylergometrine maleate				
CYCLOSPORINE	Methylhydantoin-5-(D)				
CYCLOTHIAZIDE	Methylhydantoin-5-(L)				
CYCLOVERATRYLENE	Methylprednisolone, 6-alpha				
CYPERMETHRIN	Meticrane				
CYPROHEPTADINE					
HYDROCHLORIDE	Metixene hydrochloride				
	Metoclopramide				
CYPROTERONE	monohydrochloride				
CYPROTERONE ACETATE	Metolazone				
CYROMAZINE	Metoprolol-(+,-) (+)-tartrate salt				
CYSTAMINE DIHYDROCHLORIDE	Metrizamide				
CYSTEAMINE HYDROCHLORIDE	Metronidazole				
CYTARABINE	Metyrapone				
CYTIDINE	Mevalonic-D, L acid lactone				

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CYTISINE	Mevastatin				
D-(+)-MALTOSE	Mexiletine hydrochloride				
d,l-threo-3-HYDROXY ASPARTIC ACID	Mianserine hydrochloride				
DABIGATRAN ETEXILATE					
MESYLATE	Miconazole				
DACARBAZINE	Midodrine hydrochloride				
DACTINOMYCIN	Mifepristone				
DAIDZEIN	Miglitol				
DALBERGIONE	Milrinone				
DALBERGIONE, 4-METHOXY-4'-HYDROXY-	Minaprine dihydrochloride				
DANAZOL	Minocycline hydrochloride				
DANTHRON	Minoxidil				
DANTROLENE SODIUM	Mirtazapine				
DAPSONE	Misoprostol				
DAPTOMYCIN (5 millimolar/DMSO)	Mitotane				
DARIFENACIN HYDROBROMIDE	Mitoxantrone dihydrochloride				
DASATINIB	Mizolastine				
DAUNORUBICIN	Moclobemide				
DEACETOXY(7)-OXOKHIVORINIC ACID	Modafinil				
DEACETOXY-7-OXOGEDUNIN	Molindone hydrochloride				
DEACETYLGEDUNIN	Molsidomine				
DEBRISOQUIN SULFATE	Mometasone furoate				
DECAMETHONIUM BROMIDE	Monensin sodium salt				
DECOQUINATE	Monobenzone				
DEFERIPRONE	Montelukast				
DEFEROXAMINE MESYLATE	Morantel tartrate				
DEFLAZACORT	Moricizine hydrochloride				
DEGUELIN(-)	Moroxydine hydrochloride				
	Morpholinoethylamino-3-benzocyclohepta-(5,6-c)-pyridazine dihydrochloride				
DEHYDROABETIAMIDE	Moxalactam disodium salt				
DEHYDROACETIC ACID	Moxifloxacin				
DEHYDROCHOLATE SODIUM	Moxislyte hydrochloride				
DEHYDROCHOLIC ACID	Moxonidine				
DEHYDRODIHYDROROTENONE	N6-methyladenosine				
DEHYDROPIANDROSTERONE	Nabumetone				
DEHYDROROTENONE	N-Acetyl-DL-homocysteine				
DEHYDROVARIABILIN	Thiolactone				
DEMECLOCYCLINE					
HYDROCHLORIDE	N-Acetyl-L-leucine				
DEMETHYLNOBILETIN	Nadide				
DENATONIUM BENZOATE	Nadifloxacin				
DEOXYADENOSINE	Nadolol				
	Nafcillin sodium salt				
DEOXYCHOLIC ACID	monohydrate				
DEOXYGEDUNIN	Nafronyl oxalate				
DEOXYKHIVORIN	Naftifine hydrochloride				
DEOXYPEGANINE					
HYDROCHLORIDE	Naftopidil dihydrochloride				
DEOXSAPPANONE B 7,3'-DIMETHYL ETHER	Nalbuphine hydrochloride				
DEOXSAPPANONE B 7,3'-DIMETHYL ETHER ACETATE	Nalidixic acid sodium salt				
DEOXSAPPANONE B 7,4'-DIMETHYL ETHER	Nalmefene hydrochloride				
DEOXSAPPANONE B TRIMETHYL ETHER	Naloxone hydrochloride				
DEQUALINIUM CHLORIDE	Naltrexone hydrochloride				
DERACOXIB	dihydrate				
DERRUSNIN	Nandrolone				
DERRUSTONE	Naphazoline hydrochloride				
DESACETYL (7)KHIVORINIC ACID,	Naproxen				
METHYL ESTER	Nefazodone HCl				
DESACETYLCOLFORSEN	Nefopam hydrochloride				
DESIPRAMINE HYDROCHLORIDE	Neomycin sulfate				
DESLORATADINE	Neostigmine bromide				
DESONIDE	Niacin				
DESOXYCORTICOSTERONE ACETATE	Nialamide				
DESOXYMETASONE	Nicardipine hydrochloride				
DESVENLAFAXINE SUCCINATE	Nicergoline				
DEXAMETHASONE	Niclosamide				
DEXAMETHASONE ACETATE	Nicorandil				
DEXAMETHASONE SODIUM PHOSPHATE	Nicotinamide				
DEXCHLORPHENIRAMINE MALEATE	Nifedipine				
DEXFOSFOSERINE	Nifenazone				
DEXIBUPROFEN	Niflumic acid				
DEXLANSOPRAZOLE	Nifuroxazide				
DEXPANTHENOL	Nifurtimox				
DEXPROPRANOLOL					
HYDROCHLORIDE	Nilutamide				

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
DEXTROMETHORPHAN					
HYDROBROMIDE	Nilvadipine				
DIACERIN	Nimesulide				
DIACETAMATE	Nimodipine				
DIALLYL SULFIDE	Niridazole				
DIATRIZOIC ACID	Nisoldipine				
DIAPERIDINE	Nisoxetine hydrochloride				
DIAZOXIDE	Nitrendipine				
DIBEKACIN	Nitrocaramiphen hydrochloride				
DIBENZOTHIOPHENE	Nitrofural				
DIBENZOYL METHANE	Nitrofurantoin				
LIBUCAINE HYDROCHLORIDE	Nizatidine				
DIBUTYL PHTHALATE	Nocodazole				
DICHLORISONE ACETATE	Nomegestrol acetate				
DICHLOROPHEN	Nomifensine maleate				
DICHLORVOS	Norcyclobenzaprine				
DICLAZURIL	Norethindrone				
DICLOFENAC SODIUM	Norethynodrel				
DICLORALUREA	Norfloxacin				
DICLOXA CILLIN SODIUM	Norgestimate				
DICTAMNINE	Norgestrel-(+)-D				
DICUMAROL	Nortriptyline hydrochloride				
DICYCLOMINE HYDROCHLORIDE	Novobiocin sodium salt				
DIDEACETYL (1,3)-7-					
DESACETOXY-7-OXO-					
DEOXYKHIVORINIC ACID	Nyldrin				
DIENESTROL	Nystatin				
DIETHYLCARBAMAZINE CITRATE	Oflloxacin				
DIETHYLSTILBESTROL	Olanzapine				
DIETHYLTOLUAMIDE	Olmesartan				
DIFFRACTAIC ACID	Olopatadine hydrochloride				
DIFLORASONE DIACETATE	Omeprazole				
DIFLOXACIN HYDROCHLORIDE	Ondansetron Hydrochloride				
DIFLUBENZURON	Opipramol dihydrochloride				
DIFLUNISAL	Ornidazole				
DIFUCOL HEXAMETHYL ETHER	Orphenadrine hydrochloride				
DIGITONIN	Oxacillin sodium				
DIGITOXIN	Oxalamine citrate salt				
DIGOXIGENIN	Oxandrolone				
DIGOXIN	Oxantel pamoate				
DIHYDROCELASTROL	Oxaprozin				
DIHYDROCELASTRYL DIACETATE	Oxcarbazepine				
DIHYDROERGOTAMINE					
MESYLATE	Oxethazaine				
DIHYDROFISSINOLIDE	Oxfendazol				
DIHYDROFOLIC ACID	Oxibendazol				
DIHYDROGAMBOGIC ACID	Oxiconazole Nitrate				
DIHYDROGEDUNIC ACID,					
METHYL ESTER	Oxolinic acid				
DIHYDROGEDUNIN	Oxprenolol hydrochloride				
DIHYDROJASMONIC ACID,					
METHYL ESTER	Oxybenzone				
DIHYDROMUNDULETONE	Oxybutynin chloride				
DIHYDROROTENONE	Oxymetazoline hydrochloride				
DIHYDROSTREPTOMYCIN					
SULFATE	Oxyphenbutazone				
DIHYDROTANSHINONE I	Oxytetracycline dihydrate				
DIHYDROXY					
(3alpha,12alpha)PREGNAN-20-					
ONE	Ozagrel hydrochloride				
DILA ZEP DIHYDROCHLORIDE	Paclitaxel				
DILOXANIDE FUROATE	Pancuronium bromide				
DILTIAZEM HYDROCHLORIDE	Panthenol (D)				
DIMENHYDRINATE	Papaverine hydrochloride				
DIMERCAEPROL	Parbendazole				
DIMETHADIONE	Pargyline hydrochloride				
DIMETHYL FUMARATE	Paromomycin sulfate				
DIMETHYLCAFFEIC ACID	Paroxetina Hydrochloride				
DIMETHYLSULFONE	Parthenolide				
DIMETRIDAZOLE	Pefloxacine				
DIMINAZENE ACETURATE	Pemirolast potassium				
DIMPYLA TE	Pempidine tartrate				
DINITOLMIDE	Penbutolol sulfate				
DIOSGENIN	Penciclovir				
DIOSMIN	Penicillamine				
DOXYBENZONE	Pentamidine isethionate				
DIPERO DON HYDROCHLORIDE	Pentetic acid				
DIPHENHYDRAMINE					
HYDROCHLORIDE	Pentobarbital				
DIPHENYL PYRALINE					
HYDROCHLORIDE	Pentolinium bitartrate				
DIPLOSALSALATE	Pentoxifylline				
DIPTERYXIN	Pentylenetetrazole				
DIPYRIDAMOLE	Pepstatin A				
DIPYROCETYLY	Pergolide mesylate				
DIPYRONE	Perhexiline maleate				
DIRITHROMYCI N	Perindopril				
DISOPYRAMIDE PHOSPHATE	Perphenazine				
DISULFIRAM	Phenacetin				

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
DIXANTHOGEN	Phenazopyridine hydrochloride				
DJENKOLIC ACID	Phenelzine sulfate				
D-LACTITOL MONOHYDRATE	Phenetichillin potassium salt				
d-LIMONENE	Phenformin hydrochloride				
DOBUTAMINE HYDROCHLORIDE	Phenindione				
DOCETAXEL	Pheniramine maleate				
	Phenoxybenzamine				
DOCONEXENT	hydrochloride				
DOCOSANOL	Phensuximide				
DOCUSATE SODIUM	Phentermine hydrochloride				
DOMPERIDONE	Phentolamine hydrochloride				
DONEPEZIL HYDROCHLORIDE	Phenylbutazone				
	Phenylpropanolamine				
DOPAMINE HYDROCHLORIDE	hydrochloride				
DORAMECTIN	Phthalylsulfathiazole				
DOXAPRAM HYDROCHLORIDE	Picotamide monohydrate				
DOXAZOSIN MESYLATE	Picrotoxinin				
DOXEPIN HYDROCHLORIDE	Pilocarpine nitrate				
DOXIFLURIDINE	Pimethixene maleate				
DOXYFYLLINE	Pimozone				
DOXORUBICIN	Pinacidil				
DOXYCYCLINE HYDROCHLORIDE	Pinaverium bromide				
DOXYLAMINE SUCCINATE	Pindolol				
D-PHENYLALANINE	Pioglitazone				
DROFENINE HYDROCHLORIDE	Pipemidic acid				
DROPERIDOL	Pipenzolate bromide				
DROPROPIZINE	Piperacetazine				
DROSPIRENONE	Piperacillin sodium salt				
DUARTIN (-)	Piperidolate hydrochloride				
DUARTIN, DIMETHYL ETHER	Piracetam				
DULOXETINE HYDROCHLORIDE	Pirenperone				
DUTASTERIDE	Pirenzepine dihydrochloride				
DYCLONINE HYDROCHLORIDE	Piretanide				
DYCLONINE HYDROCHLORIDE	Piribedil hydrochloride				
DYDROGESTERONE	Pirlindole mesylate				
DYPHYLLINE	Piromidic acid				
EBSALEN	Piroxicam				
ECAMSULE TRIETHANOLAMINE	Pivampicillin				
ECONAZOLE NITRATE	Pivmecillinam hydrochloride				
EDARAVONE	Pizotifen malate				
EDETADE DISODIUM	Podophyllotoxin				
EDITOL	Practolol				
EDOXUDINE	Pralidoxime chloride				
EDROPHONIUM CHLORIDE	Pramipexole				
EFAROXAN HYDROCHLORIDE	Pramoxine hydrochloride				
EFLOXATE	Pranlukast				
ELAIDYLPHOSPHOCHOLINE	Pranoprofen				
ELETRIPTAN HYDROBROMIDE	Pravastatin				
ELLAGIC ACID	Praziquantel				
ELTANOLONE	Prazosin hydrochloride				
EMBELIN	Prednicarbate				
EMETINE DIHYDROCHLORIDE	Prednisolone				
EMODIN	Prednisone				
ENALAPRIL MALEATE	Pregnenolone				
ENALAPRILAT	Prenylamine lactate				
ENILCONAZOLE SULFATE	Pridinol methanesulfonate salt				
ENOXACIN	Prilocaine hydrochloride				
ENOXOLONE	Primaquine diphosphate				
ENROFLOXACIN	Primidone				
ENTACAPONE	Proadifen hydrochloride				
ENTANDROPHRAGMIN	Probenecid				
EPHEDRINE (1R,2S)					
HYDROCHLORIDE	Probucol				
EPIAFZELECHIN (2R,3R)(-)	Procainamide hydrochloride				
EPIAFZELECHIN TRIMETHYL					
ETHER	Procaine hydrochloride				
EPIANDROSTERONE	Procarbazine hydrochloride				
EPICATECHIN	Prochlorperazine dimaleate				
EPICATECHIN MONOGALLATE	Procyclidine hydrochloride				
EPICATECHIN PENTAACETATE	Progesterone				
EPIESTRIOL	Progumide				
EPICALLOCATECHIN	Proguanil hydrochloride				
EPICALLOCATECHIN 3,5-					
DIGALLATE	Promazine hydrochloride				
EPICALLOCATECHIN-3-					
MONOGALLATE	Promethazine hydrochloride				
EPINEPHRINE BITARTRATE	Pronethalol hydrochloride				
EPIRUBICIN HYDROCHLORIDE	Propafenone hydrochloride				
EPOXY (4,Salpha)-4,5-	Propantheline bromide				
DIHYDROSANTONIN	Proparacaine hydrochloride				
EPOXYGEDUNIN	Propodium iodide				
EPRINOMECTIN	Propofol				
EPROBEMIDE	Propoxycaaine hydrochloride				
EPRODISATE DISODIUM	Propylthiouracil				
EQUILIN	Proscillarin A				
ERDOSTEINE	Prothionamide				
ERGOCALCIFEROL	Protriptyline hydrochloride				
ERGONOVINE MALEATE					

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
ERGOSTEROL	Pyran tel tartrate				
ERGOSTEROL ACETATE	Pyrazinamide				
ERGOTAMINE TARTRATE	Pyridostigmine iodide				
ERYTHROMYCIN	Pyridoxine hydrochloride				
ERYTHROMYCIN ESTOLATE	Pyrilamine maleate				
ERYTHROMYCIN					
ETHYLSUCCINATE	Pyrimethamine				
ERYTHROMYCIN STEARATE	Pyrithyldione				
ERYTHROSE	Pyrvinium pamoate				
ERYTHROSINE SODIUM	Quetiapine hemifumarate				
	Quinacrine dihydrochloride				
ESCITALOPRAM OXALATE	dihydrate				
ESCULETIN	Quinapril HCl				
ESCULIN MONOHYDRATE	Quinethazone				
	Quinidine hydrochloride				
ESOMEPRAZOLE POTASSIUM	monohydrate				
ESTRADIOL	Quipazine dimaleate salt				
	R(-) Apomorphine hydrochloride				
ESTRADIOL ACETATE	hemihydrate				
ESTRADIOL BENZOATE	Rabeprazole Sodium salt				
ESTRADIOL CYPIONATE	Racecadotril				
ESTRADIOL DIPROPIONATE	Racepinephrine HCl				
ESTRADIOL METHYL ETHER	Raclopride				
ESTRADIOL VALERATE	Raloxifene hydrochloride				
ESTRADIOL-3-SULFATE, SODIUM					
SALT	Ramipril				
ESTRAGOLE	Ranitidine hydrochloride				
ESTRAMUSTINE	Ranolazine				
ESTRIOL	Rebamipide				
ESTRONE	Reboxetine mesylate				
ESTRONE BENZOATE	Remoxipride Hydrochloride				
ESTROPIPATE	Repaglinide				
ESZOPICLONE	Reserpine				
ETHACRIDINE LACTATE	Retinoic acid				
ETHACRYNIC ACID	Ribavirin				
ETHAMBUTOL HYDROCHLORIDE	Ribostamycin sulfate salt				
ETHAMIVAN	Rifabutin				
ETHANOLAMINE OLEATE	Rifampicin				
ETHAVERINE HYDROCHLORIDE	Rifapentine				
ETHENZAMIDE	Rifaximin				
ETHINYL ESTRADIOL	Riluzole hydrochloride				
ETHIONAMIDE	Rimantadine Hydrochloride				
ETHIONINE	Rimexolone				
ETHISTERONE	Risperidone				
ETHOPABATE	Ritodrine hydrochloride				
ETHOPROPANZINE					
HYDROCHLORIDE	Rivastigmine				
ETHOSUXIMIDE	Rofecoxib				
ETHOTOIN	Rolipram				
ETHOXZOLAMIDE	Ronidazole				
ETHYL PARABEN	Ropinirole HCl				
ETHYL VANILLIN	Rosiglitazone Hydrochloride				
ETHYNODIOL DIACETATE	Roxatidine Acetate HCl				
ETICLOPRIDE HYDROCHLORIDE	Roxithromycin				
ETIDRONATE DISODIUM	Rufloxacin				
ETODOLAC	S(-)Eticlopride hydrochloride				
ETOMIDATE	S(+)-ibuprofen				
ETOPOSIDE	Salbutamol				
EUCALYPTOL	Salmeterol				
EUCATROPINE HYDROCHLORIDE	Saquinavir mesylate				
EUGENOL	Sarafloxacin				
EUPARIN	Scopolamine hydrochloride				
	Scopolamin-N-oxide				
EUPHOL	hydrobromide				
EVANS BLUE	Secnidazole				
EVERNINIC ACID	Selegiline hydrochloride				
EVOXINE	Serotonin hydrochloride				
EXALAMIDE	Sertaconazole nitrate				
EXEMESTANE	Sertindole				
EZETIMIBE	Sertraline				
FAMCICLOVIR	Sibutramine HCl				
FAMOTIDINE	Sildenafil				
FAMPRIDINE	Simvastatin				
FAMPROFAZONE	Sisomicin sulfate				
FARNESOL	Sotalol hydrochloride				
FASUDIL HYDROCHLORIDE	Spaglumic acid				
FEBUXOSTAT	Sparfloxacin				
FELBINAC	Spectinomycin dihydrochloride				
FELODIPINE	Spiperone				
FENACLON	Spiramycin				
FENBENDAZOLE	Spirostanolactone				
FENBUFEN	Stanozolol				
FENBUTYRAMIDE	Stavudine				
FENCLONINE	Streptomycin sulfate				
FENDILINE HYDROCHLORIDE	Streptozotocin				
FENIPENTOL	Succinylsulfathiazole				
FENOFIBRATE	Sulbactam				
FENOFIBRIC ACID	Sulconazole nitrate				

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
FENOLDIPAM MESYLATE	Sulfabenamide				
FENOPROFEN	Sulfacetamide sodic hydrate				
FENOTEROL HYDROBROMIDE	Sulfachloropyridazine				
FENSPIRIDE HYDROCHLORIDE	Sulfadiazine				
FENTHION	Sulfadimethoxine				
FERROUS FUMARATE	Sulfadoxine				
FERULIC ACID	Sulfaguanidine				
FEXOFENADINE					
HYDROCHLORIDE	Sulfamerazine				
FINASTERIDE	Sulfameter				
FIPEXIDE HYDROCHLORIDE	Sulfamethazine sodium salt				
FIPRONIL	Sulfamethizole				
FIROCOXIB	Sulfamethoxazole				
FISSINOLIDE	Sulfamethoxypyridazine				
FLAVANONE	Sulfamonomethoxine				
FLOPROPIONE	Sulfanilamide				
FLORFENICOL	Sulfaphenazole				
FLOXURIDINE	Sulfapyridine				
FLUCONAZOLE	Sulfaquinoxaline sodium salt				
FLUCYTOSINE	Sulfasalazine				
FLUDARABINE PHOSPHATE	Sulfathiazole				
FLUDROCORTISONE ACETATE	Sulfapyrazone				
FLUFENAMIC ACID	Sulfisoxazole				
FUMAZENIL	Sulindac				
FLUMEQUINE	Sulmazole				
FLUMETHASONE	Sulotildil				
FLUMETHAZONE PIVALATE	Sulpiride				
FLUNARIZINE HYDROCHLORIDE	Sumatriptan succinate				
FLUNISOLIDE	Suprofen				
FLUNIXIN MEGLUMINE	Suxibuzone				
FLUOCINOLONE ACETONIDE	Tacrine hydrochloride				
FLUOCINONIDE	Talampicillin hydrochloride				
FLUORESCIN	Tamoxifen citrate				
FLUOROMETHOLONE	Tazobactam				
FLUOROURACIL	Telenzepine dihydrochloride				
FLUOXETINE	Telmisartan				
FLUPHENAZINE					
HYDROCHLORIDE	Temozolomide				
FLURANDRENOLE	Tenatoprazole				
FLURBIPROFEN	Tenoxicam				
FLUROTHYL	Terazosin hydrochloride				
FLUROXENE	Terbutaline hemisulfate				
FLUTAMIDE	Terconazole				
FLUTICASONE PROPIONATE	Terfenadine				
FLUVASTATIN	Testosterone propionate				
FLUVOXAMINE MALEATE	Tetraacaine hydrochloride				
FOLIC ACID	Tetracycline hydrochloride				
FOMEPIZOLE	Tetraethylenepentamine				
	pentahydrochloride				
FOMEPIZOLE HYDROCHLORIDE	Tetrahydroxy-1,4-quinone monohydrate				
FORMESTANE	Tetrahydrozoline hydrochloride				
FORMONONETIN	Tetramisole hydrochloride				
FOSCARNET SODIUM	Thalidomide				
FOSFOMYCIN CALCIUM	Theobromine				
FOSFOSAL	Theophylline monohydrate				
FRAXIDIN METHYL ETHER	Thiamine hydrochloride				
FRIEDELIN	Thiamphenicol				
FTAXILIDE	Thiethylperazine dimalate				
FUCOSTANOL	Thimerosal				
FULVESTRANT	Thiocolchicoside				
FUMARPROTOCETRARIC ACID	Thioguanosine				
FURALTADONE	Thioperamide maleate				
FURAZOLIDONE	Thioproperezine dimesylate				
FUROSEMIDE	Thioridazine hydrochloride				
FUSIDIC ACID	Thiophan				
GABAPENTIN	Thiostrepton				
GABOXadol HYDROCHLORIDE	THIP Hydrochloride				
GADOTERIDOL	Thonzonium bromide				
GALANGIN	Thyroxine (L)				
GALANGIN 3-O-METHYL ETHER	Tiabendazole				
GALANGIN TRIMETHYL ETHER	Tiapride hydrochloride				
GALANTAMINE	Tiaprofenic acid				
GALLAMINE TRIETHIODIDE	Tibolone				
GALLIC ACID	Ticarcillin sodium				
GAMBOGIC ACID	Ticlopidine hydrochloride				
gamma-AMINOBUTYRIC ACID	Tiletamine hydrochloride				
GANCICLOVIR	Timolol maleate salt				
GANGALEOIDIN	Tinidazole				
GARCINOLIC ACID	Tioconazole				
	Tiratricol, 3,3',5'-triodothyroacetic acid				
GARDENIN B	Tizanidine HCl				
GARLICIN	Tobramycin				
GATIFLOXACIN	Tocainide hydrochloride				
GEDUNIN	Todralazine hydrochloride				
GEFITINIB	Tolazamide				
GEMFIBROZIL	Tolazoline hydrochloride				
GEMIFLOXACIN MESYLATE	Tolbutamide				
GENETICIN	Tolfenamic acid				

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
GENKwanin	Tolmetin sodium salt dihydrate				
GENTAMICIN SULFATE	Tolnaftate				
GENTIAN VIOLET	Toltrazuril				
GIBBERELLIC ACID	Tomoxetine hydrochloride				
GINKGOLIDE A	Topiramate				
GITOXIGENIN DIACETATE	Topotecan				
GITOXIN	Toremifene				
GLAFENINE	Torsemide				
GLICLAZIDE	Tosufloxacin hydrochloride				
GLIMEPIRIDE	Tracazolate hydrochloride				
GLIPIZIDE	Tramadol hydrochloride				
GLUCITOL-4-GUCOPYANOSIDE	Tranexamic acid				
GLUCONOLACTONE	Tranlast				
GLUCOSAMINE					
HYDROCHLORIDE	Tranylcypromine hydrochloride				
GLUCOSAMINIC ACID	Trapidil				
GLUTAMINE (D)	Trazodone hydrochloride				
GLUTAMINE (L)	Tremorine dihydrochloride				
GLUTATHIONE	Triamcinolone				
GLYBURIDE	Triamterene				
GLYCOCHOLIC ACID	Tribenoside				
GLYCOPYRROLATE	Trichlorfon				
GLYCYRRHIZIC ACID,					
AMMONIUM SALT	Trichlormethiazide				
GOSSYPETIN	Triclosan				
GOSSYPIN	Tridihexethyl chloride				
GOSSYPOL	Trifluoperazine dihydrochloride				
GRAMICIDIN (gramicidin A shown)	Triflupromazine hydrochloride				
GRAMINE	Trifluridine				
GRANISETRON					
HYDROCHLORIDE	Triflusil				
GRAYANOTOXIN I	Trihexyphenidyl-D,L Hydrochloride				
GRISEOFULVIN	Trimeprazine tartrate				
GUAIACOL	Trimetazidine dihydrochloride				
GUAIAZULENE	Trimethadione				
	Trimethobenzamide				
GUAIFENESIN	hydrochloride				
GUAIOL(-)	Trimethoprim				
GUANABENZ ACETATE	Trimipramine maleate salt				
GUANADREL SULFATE	Trioxsalen				
GUANETHIDINE MONOSULFATE	Tripeleannamine hydrochloride				
GUANFACINE HYDROCHLORIDE	Triprolidine hydrochloride				
GUANIDINE HYDROCHLORIDE	Troglitazone				
HAEMATOMMIC ACID, ETHYL ESTER	Troleandomycin				
HAEMATOPORPHYRIN	Troxol				
HAEMATOXYLIN	Tropicamide				
HAEMATOXYLIN PENTAACETATE	Tropisetron HCl				
HALAZONE	Tulobuterol				
HALOPERIDOL	Tylosin				
HALOTHANE	Tyloxa-pol				
HARMALINE	Urapidil hydrochloride				
HARMALOL HYDROCHLORIDE	Urosiol				
HARMANE	Valacyclovir hydrochloride				
HARMIN	Valproic acid				
HARMOL HYDROCHLORIDE	Vancomycin hydrochloride				
HARPAGOSIDE	Vardenafil				
HECOGENIN	Vatalanib				
HECOGENIN ACETATE	Vecuronium bromide				
HEDERAGENIN	Venlafaxine				
HELENINE	Verapamil hydrochloride				
HELICIN	Verteporfin				
HEMATEIN	Vidarabine				
HEPTAMINOL HYDROCHLORIDE	Vigabatrin				
HESPERETIN	Viloxazine hydrochloride				
HESPERIDIN	Vincamine				
HETACILLIN POTASSIUM	Vinpocetine				
HETEROPEUCENIN, METHYL ETHER					
HEXACHLOROPHEN	Viomycin sulfate				
HEXAMETHONIUM BROMIDE	Voriconazole				
HEXAMETHYLQUERCETAGETIN	Vorinostat				
HEXESTROL	Warfarin				
HEXETIDINE	Xamoterol hemifumarate				
HEXYLENE GLYCOL	Xylazine				
HEXYLRESORCINOL	Xylometazoline hydrochloride				
HIERACIN	Yohimbine hydrochloride				
HISTAMINE DIHYDROCHLORIDE	Zafirlukast				
HOMATROPINE	Zalcitabine				
HYDROBROMIDE	Zaleplon				
HOMATROPINE					
METHYLBROMIDE	Zaprinast				
HOMIDIUM BROMIDE	Zardaverine				
HOMOPTEROCARPIN	Zidovudine, AZT				
HOMOSALATE	Zileuton				
	Zimelidine dihydrochloride monohydrate				
HUMULENE (alpha)					

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
HUPERZINE A	Ziprasidone Hydrochloride				
HYCANTHONE	Zomepirac sodium salt				
HYDRALAZINE HYDROCHLORIDE	Zonisamide				
HYDRASTINE (1R, 9S)	Zopiclone				
HYDRASTININE					
HYDROCHLORIDE	Zotepine				
HYDROCHLOROTHIAZIDE	Zoxazolamine				
HYDROCORTISONE	Zuclopenthixol dihydrochloride				
HYDROCORTISONE ACETATE					
HYDROCORTISONE BUTYRATE					
HYDROCORTISONE					
HEMISUCINATE					
HYDROCORTISONE PHOSPHATE					
TRIETHYLAMINE					
HYDROCORTISONE VALERATE					
HYDROFLUMETHIAZIDE					
HYDROLYSIS PRODUCT OF					
BUSSEIN					
HYDROQUINIDINE					
HYDROQUINONE					
HYDROXYAMPHETAMINE					
HYDROBROMIDE					
HYDROXYCHLOROQUINE					
SULFATE					
HYDROXYPROGESTERONE					
HYDROXYPROGESTERONE					
CAPROATE					
HYDROXYTOLUIC ACID					
HYDROXYUREA					
HYDROXYZINE PAMOATE					
HYMECHROME					
HYMECROMONE METHYL					
ETHER					
HYOSCYAMINE					
HYPOXANTHINE					
IBANDRONATE SODIUM					
IBUPROFEN					
ICARIN					
IDAZOXAN HYDROCHLORIDE					
IDEBENONE					
IDOXURIDINE					
IDRAMANTONE					
IFOSFAMIDE					
IMATINIB					
IMEXON					
IMIPENEM					
IMIPRAMINE HYDROCHLORIDE					
IMIQUIMOD					
INAMRINONE					
INDAPAMIDE					
INDOLE-3-CARBINOL					
INDOMETHACIN					
INDOPROFEN					
INOSINE					
INOSITOL					
IODIPAMIDE					
IODIXANOL					
IODOQUINOL					
IOHEXOL					
IOPANIC ACID					
IOTHALAMIC ACID					
IOVERSOL					
IOXILAN					
IPRATROPIUM BROMIDE					
IPRIFLAVONE					
IPRONIAZID SULFATE					
IRBESARTAN					
IRETOL					
IRIDIN					
IRIGENIN					
IRIGENIN TRIMETHYL ETHER					
IRIGENIN, DIBENZYL ETHER					
IRIGENOL					
IRIGINOL HEXAACETATE					
IRINOTECAN HYDROCHLORIDE					
IRSOGGLADINE MALEATE					
ISAXONINE					
ISOBERGAPTENE					
ISOBUTAMBEN					
ISOBUTYL METHYLXANTHINE					
ISOETHARINE MESYLATE					
ISOFLUPREDONE ACETATE					
ISOFORMONONETIN					
ISOKOBUSONE					
ISOLIQUIRITIGENIN					
ISONIAZID					
ISOOSAJIN					
ISOPEONOL					
ISOPIMPINELLIN					

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
ISOPOMIFERIN					
ISOPROPAMIDE IODIDE					
ISOPROTERENOL					
HYDROCHLORIDE					
ISOROTENONE					
ISOSORBIDE DINITRATE					
ISOSORBIDE MONONITRATE					
ISOTECTORIGENIN, 7-METHYL					
ETHER					
ISOTRETINON					
ISOVALERAMIDE					
ISOXICAM					
ISOXSUPRINE HYDROCHLORIDE					
ISRADIPINE					
ITOPRIDE HYDROCHLORIDE					
ITRACONAZOLE					
IVERMECTIN					
IZALPININ					
JUAREZIC ACID					
JUGNONE					
KAEMPFEROL					
KANAMYCIN A SULFATE					
KASUGAMYCIN					
HYDROCHLORIDE					
KAWAIN					
KETANSERIN TARTRATE					
KETOCONAZOLE					
KETOPROFEN					
KETOROLAC TROMETHAMINE					
KETOTIFEN FUMARATE					
KHAYANTHONE					
KHELLIN					
KHIVORIN					
KINETIN					
KOBUSONE					
KOPARIN					
KYNURENINE					
L(+/-)-ALLIIN					
LABETALOL HYDROCHLORIDE					
LACCAIC ACID A					
LACITOL					
LACTOBIONIC ACID					
LACTULOSE					
LAGOCHILIN					
LAMIVUDINE					
LAMOTRIGINE					
LANATOSIDE C					
LANOSTEROL					
LANOSTEROL ACETATE					
LANSOPRAZOLE					
LARIXINIC ACID					
LARIXOL					
LATHOSTEROL					
LAWSONE					
L-BUTHIONINE SULFOXIMINE					
L-DEOXYALLIN					
LECANORIC ACID					
LEFLUNOMIDE					
LEOIDIN					
LETROZOLE					
LEUCOVORIN CALCIUM					
LEVALBUTEROL					
HYDROCHLORIDE					
LEVAMISOLE HYDROCHLORIDE					
LEVOCYCLOSERINE					
LEVOBUNILOL					
HYDROCHLORIDE					
LEVOCARNITINE					
LEVOCARNITINE PROPIONATE					
HYDROCHLORIDE					
LEVOCETIRIZINE					
DIHYDROCHLORIDE					
LEVODOPA					
LEVOFLOXACIN					
LEVOMENTHOL					
LEVONORGESTREL					
LEVOSIMENDAN					
LEVOTHYROXINE					
LEVULINIC ACID, 3-					
BENZYLIDENYL-					
LIDOCAINE HYDROCHLORIDE					
LIMONIN					
LINALIPTIN					
LINALOOL (+)					
LINAMARIN					
LINCOMYCYIN HYDROCHLORIDE					
LINDANE					
LINEZOLID					
LIOTHYRONINE					

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
LIOTHYRONINE (L- isomer)					
SODIUM					
LIPONAMIDE					
LISINOPRIL					
LITHIUM CITRATE					
LITHOCHOLIC ACID					
L-LEUCYL-L-ALANINE					
LOBARIC ACID					
LOBELINE HYDROCHLORIDE					
LOBENDAZOLE					
LOFEXIDINE HYDROCHLORIDE					
LOMEFLOXACIN					
HYDROCHLORIDE					
LOMERIZINE HYDROCHLORIDE					
LOMUSTINE					
LOPERAMIDE HYDROCHLORIDE					
LORATADINE					
LORGLUMIDE SODIUM					
LORNOXICAM					
LOSARTAN					
LOVASTATIN					
LOXPINE SUCCINATE					
LOXOPROFEN					
L-PHENYLALANINOL					
L-SERYL-L-GLUTAMINE					
LUFENURON					
LUMIRACOXIB					
LUPANINE PERCHLORATE					
LUPANYL ACID					
HYDROCHLORIDE					
LUPEOL					
LUPEOL ACETATE					
LUPININE					
MADECASSIC ACID					
MAFENIDE HYDROCHLORIDE					
MALATHION					
MANDELIC ACID, METHYL ESTER					
MANGAFODIPIR TRISODIUM					
MANGIFERIN					
MANGOSTIN TRIMETHYL ETHER					
MANIDIPINE HYDROCHLORIDE					
MANNITOL					
MAPROTILINE HYDROCHLORIDE					
MEBENDAZOLE					
MEBEVERINE HYDROCHLORIDE					
MEBHIDROLIN					
NAPHTHALENESULFONATE					
MECAMYLAMINE					
HYDROCHLORIDE					
MECHLORETHAMINE					
MECLIZINE HYDROCHLORIDE					
MECLOCYCLINE					
SULFOSALICYLATE					
MECLOFENAMATE SODIUM					
MECLOFENOATE					
HYDROCHLORIDE					
MECYSTEINE HYDROCHLORIDE					
MEDROXYPROGESTERONE					
ACETATE					
MEDRYSONE					
MEFENAMIC ACID					
MEFEXAMIDE HYDROCHLORIDE					
MEFLOQUINE					
MEGESTROL ACETATE					
MEGLUMINE					
MEGLUTOL					
MELATONIN					
MELENGESTROL ACETATE					
MELEZITOSE					
MELIBIOSE					
MELOXICAM SODIUM					
MELPHALAN					
MEMANTINE HYDROCHLORIDE					
MENADIONE					
MENAQUINONE-4					
MENBUTONE					
MENTHANE					
MENTHYL BENZOATE					
MEPARFYLYN					
MEPARTRICIN					
MEPENZOLATE BROMIDE					
MEPHENESIN					
MEPHENTERMINE SULFATE					
MEPHENYTOIN					
MEPIROXOL					
MEPIVACAINE HYDROCHLORIDE					

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
MEPYLCAINE HYDROCHLORIDE MEQUINOL MERBROMIN MERCAPTOPURINE MEROGEDUNIN MEROPENEM MESALAMINE MESNA MESORIDAZINE BESYLATE MESTRANOL METACETAMOL meta-CRESYL ACETATE METAMECONINE METAPROTERENOL METARAMINOL BITARTRATE METAXALONE METERGOLINE METFORMIN HYDROCHLORIDE METHACHOLINE CHLORIDE METHACYCLINE HYDROCHLORIDE METHAPYRILENE HYDROCHLORIDE METHAZOLAMIDE METHENAMINE METHICILLIN SODIUM METHIMAZOLE METHIONINE SULFOXIMINE (L) METHOCARBAMOL METHOPRENE (S) METHOTREXATE(+/-) METHOXAMINE HYDROCHLORIDE METHOXALEN METHOXYAMINE HYDROCHLORIDE METHOXYVONE METHSCOPOLAMINE BROMIDE METHSUXIMIDE METHYCLOTHIAZIDE METHYL 7- DESHYDROXYPYROGALLIN-4- CARBOXYLATE METHYL DEOXYCHOLATE METHYL GAMBOGATE METHYL ETHER METHYL ORSELLINATE METHYL ROBUSTONE METHYL TRIMETHOXYCINNAMATE METHYLATROPINE NITRATE METHYLBENZTHONIUM CHLORIDE METHYLDOPA METHYLENE BLUE METHYLERGONOVINE MALEATE METHYLPHENIDATE HYDROCHLORIDE METHYLPREDNISOLONE METHYLSPREDNISOLONE SODIUM SUCCINATE METHYTHIOURACIL METHYSERGIDE MALEATE METICRANE METIPEPINE MALEATE METOCLOPRAMIDE HYDROCHLORIDE METOLAZONE METOPROLOL TARTRATE METRONIDAZOLE METYRAPONE MEVALONIC ACID LACTONE MEXAMINE MEXENEONE MEXICANOLIDE MEXILETINE HYDROCHLORIDE MIANSERIN HYDROCHLORIDE MICONAZOLE NITRATE MIDODRINE HYDROCHLORIDE MIFEPRISTONE MIGLITOL MILNACIPRAN HYDROCHLORIDE MILRINONE MILTEFOSINE MIMOSINE MINAPRINE HYDROCHLORIDE					

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
MINOCYCLINE HYDROCHLORIDE					
MINOXIDIL					
MITOMYCIN					
MITOTANE					
MITOXANTRONE					
HYDROCHLORIDE					
MITRAPHYLLINE					
MODAFINIL					
MODALINE SULFATE					
MOQUISTEINE					
MOLSIDOMINE					
MOMETASONE FUROATE					
MONENSIN SODIUM (monensin A is shown)					
MONOBENZONE					
MONOCROTALINE					
MONTELUKAST SODIUM					
MORANTEL CITRATE					
MORIN					
MOROXYDINE HYDROCHLORIDE					
MOXALACTAM DISODIUM					
MOXIDECTIN					
MOXIFLOXACIN					
HYDROCHLORIDE					
MOXISYLYTE HYDROCHORIDE					
MUCIC ACID					
MUNDOSERONE					
MUNDULONE					
MUNDULONE ACETATE					
MUPIROCIN					
MUROLLADIE-3-ONE					
MYCOPHENOLATE MOFETIL					
MYCOPHENOLIC ACID					
MYOSMINE					
N,N-					
HEXAMETHYLENEAMILORIDE					
NABUMETONE					
N-ACETYLGLUCOSAMINE					
N-ACETYLPROLINE					
NADIDE					
NADIFLOXACIN					
NADOLOL					
NAFCILLIN SODIUM					
NAFRONYL OXALATE					
NAFTIFINE HYDROCHLORIDE					
NAFTOPIDIL					
NALBUPHINE HYDROCHLORIDE					
NALIDIXIC ACID					
NALOXONE HYDROCHLORIDE					
NALTREXONE HYDROCHLORIDE					
NANOFIN					
NAPHAZOLINE HYDROCHLORIDE					
NAPROXEN(+)					
NARINGENIN					
NARINGIN					
NATAMYCIN					
NATEGLINIDE					
NEFAZODONE HYDROCHLORIDE					
NEFIRACETAM					
NEFOPAM					
NELARABIN					
NEOMYCIN SULFATE					
NEOSTIGMINE BROMIDE					
NEROL					
NEROLIDOL					
NETILMICIN SULFATE					
NEVIRAPINE					
NIACIN					
NIACINAMIDE					
NIALAMIDE					
NICARDIPINE HYDROCHLORIDE					
NICERGOLINE					
NICLOSAMIDE					
NICOPHOLINE					
NICOTINE BITARTRATE					
NICOTINYL ALCOHOL TARTRATE					
NIFEDIPINE					
NIFENAZONE					
NIFLUMIC ACID					
NIFUROXAZIDE					
NIFURSOL					
NIKETHAMIDE					
NILUTAMIDE					
NIMESULIDE					
NIMODIPINE					
NIMUSTINE					

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
NIPECOTIC ACID					
NISOLDIPINE					
NITARSONE					
NITAZOXANIDE					
NITHIAMIDE					
NITRENDIPINE					
NITROFURANTOIN					
NITROFURAZONE					
NITROGLYCERIN					
NITROMIDE					
NITROXOLINE					
NIZATIDINE					
N-METHYL (-)EPHEDRINE [1R,2S]					
N-METHYLANTHRANILIC ACID					
N-METHYLBENZYLAMINE					
HYDROCHLORIDE					
N-METHYL-D-ASPARTIC ACID (NMDA)					
N-METHYLSOLEUCINE					
NOBILETIN					
NOMIFENSINE MALEATE					
NONIC ACID					
NONIVAMIDE					
NONOXYNOL-9					
NORCANTHARIDIN					
NOREPINEPHRINE					
NORETHINDRONE					
NORETHINDRONE ACETATE					
NORETHYNODREL					
NORFLOXACIN					
NORGESTIMATE					
NORGESTREL					
NORSTICTIC ACID					
NORSTICTIC ACID					
PENTAACETATE					
NORTRIPTYLINE					
HYDROCHLORIDE					
NOSCAPINE HYDROCHLORIDE					
NOVOBIOCIN SODIUM					
N-PHENYLANTHRANILIC ACID					
NYLIDRIN HYDROCHLORIDE					
NYSTATIN					
O-BENZYL-L-SERINE					
OBLIQUIN					
OBTUSAQUINONE					
OCTINOXATE					
OCTISALATE					
OCTOCRYLENE					
OCTOPAMINE HYDROCHLORIDE					
OFLOXACIN					
OLANZAPINE					
OLEANDOMYCIN PHOSPHATE					
OLEANOIC ACID					
OLMESARTAN					
OLMESARTAN MEDOXOMIL					
OLSALAZINE SODIUM					
OLTIPRAZ					
OMEGA-3-ACID ESTERS (EPA shown)					
OMEPRAZOLE					
ONDANSETRON					
ONONETIN					
ORBIFLOXACIN					
ORLISTAT					
ORNIDIAZOLE					
ORNITHINE HYDROCHLORIDE					
OROTIC ACID					
ORPHENADRINE CITRATE					
ORSELLINIC ACID					
ORSELLINIC ACID, ETHYL ESTER					
OSAJIN					
OSAJIN 4'-METHYL ETHER					
OSELTAMIVIR PHOSPHATE					
OUABAIN					
OXACILLIN SODIUM					
OXALIPLATIN					
OXANTEL PAMOATE					
OXAPROZIN					
OXCARBAZEPINE					
OXEDRINE					
OXELAIDIN CITRATE					
OXETHAZAINE					
OXFENDAZOLE					
OXIBENDAZOLE					
OXICONAZOLE NITRATE					
OXIDOPAMINE					
HYDROCHLORIDE					
OXINIACIC ACID					

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
OXOLAMINE CITRATE					
OXOLINIC ACID					
OXONITINE					
OXTRIPTYLLINE					
OXYBENZONE					
OXYBUTYNIN CHLORIDE					
OXYCLOZANIDE					
OXYMETAZOLINE					
HYDROCHLORIDE					
OXPHENBUTAZONE					
OXPHENCYCLIMINE					
HYDROCHLORIDE					
OXPHENONIUM BROMIDE					
OXYQUINOLINE SULFATE					
OXYTETRACYCLINE					
OXYTHIAMINE CHLORIDE					
HYDROCHLORIDE					
PACHYRRHIZIN					
PACLITAXEL					
PAEONOL					
PALIPERIDONE					
PALMATINE CHLORIDE					
PALMIDROL					
PAMABROM					
PANCURONIUM BROMIDE					
PANGAMIC ACID SODIUM					
PANTETHINE					
PANTOPRAZOLE					
PANTOTHENIC ACID(d) Na salt					
PAPAVERINE HYDROCHLORIDE					
PARACHLOROPHENOL					
PARAMETHADIONE					
PARAXANTHINE					
PARGYLINE HYDROCHLORIDE					
PAROMOMYCIN SULFATE					
PAROXETINE HYDROCHLORIDE					
PAROXYPROPIONE					
PASINIAZID					
PATULIN					
PAZUFLOXACIN MESYLATE					
PECTOLINARIN					
PEFLOXACINE MESYLATE					
PEMETREXED					
PEMPIDINE TARTRATE					
PENBUTOLOL SULFATE					
PENCICLOVIR					
PENFLURIDOL					
PENICILLAMINE					
PENICILLIN G POTASSIUM					
PENICILLIN V POTASSIUM					
PENTAGASTRIN					
PENTAMIDINE ISETHIONATE					
PENTETIC ACID					
PENTOXIFYLINE					
PENTYLENETETRAZOL					
PEONIFLORIN					
PEONOL METHYL ETHER					
PERGOLIDE MESYLATE					
PERHEXILINE MALEATE					
PERILIC ACID (-)					
PERILLYL ALCOHOL					
PERINDOPRIL ERBUMINE					
PERMETHRIN					
PERPHENAZINE					
PERSEITOL					
PERUVOSIDE					
PEUCENIN					
PHENACEMIDE					
PHENACETIN					
PHENACYLAMINE					
HYDROCHLORIDE					
PHENAZOPYRIDINE					
HYDROCHLORIDE					
PHENELZINE SULFATE					
PHENETHYL CAFFEATE (CAPE)					
PHENETHYLAMINE					
HYDROCHLORIDE					
PHENFORMIN HYDROCHLORIDE					
PHENINDIONE					
PHENIRAMINE MALEATE					
PHENOLPHTHALEIN					
PHENOThIAZINE					
PHENOTHRIN					
PHENOXYBENZAMINE					
HYDROCHLORIDE					
PHENSUCCIMIDE					
PHENTOLAMINE					
HYDROCHLORIDE					
PHENYL AMINOSALICYLATE					

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
PHENYLBUTAZONE					
PHENYLBUTYRATE SODIUM					
PHENYLEPHRINE					
HYDROCHLORIDE					
PHENYLETHYL ALCOHOL					
PHENYLMERCURIC ACETATE					
PHENYLPROPANOLAMINE					
HYDROCHLORIDE					
PHENYTOIN SODIUM					
PHLORACETOPHENONE					
PHLORETIN					
PHLORIDZIN					
PHTHALYSULFACETAMIDE					
PHTHALYSULFATHIAZOLE					
PHYSCION					
PHYSOSTIGMINE SALICYLATE					
PHYTOL					
PHYTONADIONE					
PICEID					
PICOLAMINE					
PICONOL					
PICROPODOPHYLLIN					
PICROPODOPHYLLIN ACETATE					
PICROTIN					
PICROTOXININ					
PIDOLIC ACID					
PIDOTIMOD					
PILOCARPINE NITRATE					
PIMAGEDINE HYDROCHLORIDE					
PIMETHIXENE MALEATE					
PIMOZIDE					
PIMPINELLIN					
PINACIDIL					
PINDOLOL					
PINOSYLVIN					
PIOGLITAZONE					
HYDROCHLORIDE					
PIPAMPERONE					
PIPEMIDIC ACID					
PIPERACETAZINE					
PIPERACILLIN SODIUM					
PIPERAZINE					
PIPERIC ACID					
PIPERIDOLATE HYDROCHLORIDE					
PIPERINE					
PIPERONYL BUTOXIDE					
PIPERONYLIC ACID					
PIPLARTINE					
PIPOBROMAN					
PIRACETAM					
PIRENPERONE					
PIRENZEPINE HYDROCHLORIDE					
PIROCTONE OLAMINE					
PIROMIDIC ACID					
PIROXICAM					
PISCIDIC ACID					
PITAVASTATIN CALCIUM					
PIZOTYLINE MALATE					
PLUMBAGIN					
PODOFILOX					
PODOPHYLLIN ACETATE					
PODOTOTARIN					
POLYMYXIN B SULFATE					
POMIFERIN					
POMIFERIN DIMETHYL ETHER					
POMIFERIN TRIMETHYL ETHER					
POTASSIUM p-					
AMINOBENZOATE					
PRALIDOXIME CHLORIDE					
PRAMOXINE HYDROCHLORIDE					
PRANOPROFEN					
PRASTERONE					
PRASTERONE ACETATE					
PRASUGREL					
PRAVASTATIN SODIUM					
PRAZIQUANTEL					
PRAZOSIN HYDROCHLORIDE					
PREDNICARBATE					
PREDNISOLONE					
PREDNISOLONE ACETATE					
PREDNISOLONE					
HEMISUCCINATE					
PREDNISOLONE SODIUM					
PHOSPHATE					
PREDNISOLONE TEBUTATE					
PREDNISONE					
PREGABALIN					
PREGNENOLONE					
PREGNENOLONE SUCCINATE					

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
PRENYLETIN PRIDINOL METHANESULFONATE PRILOCaine HYDROCHLORIDE PRIMAQUINE PHOSPHATE PRIMIDONE PRIMULETIN PRISTIMERIN PROADIFEN HYDROCHLORIDE PROBENECID PROBUCOL PROCAINAMIDE HYDROCHLORIDE PROCaine HYDROCHLORIDE PROCARBAZINE HYDROCHLORIDE PROCHLORPERAZINE EDISYLATE PROCODAZOLE PROCYCLIDINE HYDROCHLORIDE PROFLAVINE HEMISULFATE PROGESTERONE PROGLUMIDE PROMAZINE HYDROCHLORIDE PROMETHAZINE HYDROCHLORIDE PRONETALOL HYDROCHLORIDE PROPafenone HYDROCHLORIDE PROPANTHELINE BROMIDE PROPARACaine HYDROCHLORIDE PROPIOLACTONE PROPOFOL PROPOXUR PROPOXYCAINE HYDROCHLORIDE PROPRANOLOL HYDROCHLORIDE (+/-) PROPYLTIOUracil PROSCILLARIDIN PROTIONAMIDE PROTIRELIN PROTOPORPHYRIN IX PROTRYPTYLINE HYDROCHLORIDE PROXYPHYLLINE PRULIFLOXACIN PSEUDO-ANISATIN PSEUDOEPHEDRINE HYDROCHLORIDE PTAEROXYLIN PUERARIN PUROMYCIN DIHYDROCHLORIDE PURPURIN PURPUROGALLIN PURPUROGALLIN-4- CARBOXYLIC ACID PUTRESCINE DIHYDROCHLORIDE PYRANTEL PAMOATE PYRAZINAMIDE PYRETHRINS PYRIDOSTIGMINE BROMIDE PYRIDOXINE PYRILAMINE MALEATE PYRIMETHAMINE PYRITHIONE ZINC PYRITHYLDIONE PYRITINOL PYROCATECHUIC ACID PYRONARIDINE TETRAPHOSPHATE PYRROMYCIN PYRVINIUM PAMOATE QUASSIN QUEBRACHITOL QUERCETIN QUERCETIN 5,7,3',4'- TETRAMETHYL ETHER QUERCITRIN QUETIAPINE QUINACRINE HYDROCHLORIDE QUINAPRIL HYDROCHLORIDE QUINAPRILAT QUINESTROL QUINETHAZONE QUINIC ACID QUINIDINE GLUCONATE					

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
QUININE ETHYL CARBONATE					
QUININE SULFATE					
QUINOLINIC ACID					
QUIPAZINE MALEATE					
RABEPRAZOLE SODIUM					
RACECADOTRIL					
RACEPHEDRINE					
HYDROCHLORIDE					
RACTOPAMINE					
HYDROCHLORIDE					
RALOXIFENE HYDROCHLORIDE					
RAMELTEON					
RAMIFENAZONE					
RAMIPRIL					
RAMOPLANIN [A2 shown; 2mM]					
RANITIDINE HYDROCHLORIDE					
RANOLAZINE					
RASAGILINE					
RAUWOLSCINE					
HYDROCHLORIDE					
REBAMIPIDE					
REPAGLINIDE					
RESERPINE					
RESORCINOL					
RESORCINOL MONOACETATE					
RESVERATROL					
RESVERATROL 4'-METHYL ETHER					
RETINOL					
RETINYL ACETATE					
RETINYL PALMITATE					
RETUSIN					
RHETSININE					
RHODINYL ACETATE					
RHODOCLADONIC ACID					
RHOIFOLIN					
RIBAVIRIN					
RIBOFLAVIN					
RIBOFLAVIN 5-PHOSPHATE					
SODIUM					
RIBOSTAMYcin Sulfate					
RIFAMPIN					
RIFAXIMIN					
RILUZOLE					
RIMANTADINE					
HYDROCHLORIDE					
RISEDRONATE SODIUM					
RISPERIDONE					
RITANSERIN					
RITODRINE HYDROCHLORIDE					
RITONAVIR					
RIVASTIGMINE TARTRATE					
RIZATRIPTAN BENZOATE					
ROBUSTIC ACID					
ROCELLIC ACID					
ROFECOXIB					
ROLIPRAM					
ROLITETRACYCLINE					
RONIDAZOLE					
ROPINIROLE HYDROCHLORIDE					
ROSIGLITAZONE MALEATE					
ROSMARINIC ACID					
ROSOLIC ACID					
ROSUVASTATIN CALCIUM					
ROTENONE					
ROtenonic ACID, METHYL					
ETHER					
ROXARSONE					
ROXATIDINE ACETATE					
HYDROCHLORIDE					
ROXITHROMYCIN					
RUFLOXACIN HYDROCHLORIDE					
RUTILANTINONE					
RUTIN					
SACCHARIN					
SAFROLE					
SALICIN					
SALICYL ALCOHOL					
SALICYLAMIDE					
SALICYLANILIDE					
SALIDROSIDE					
SALINOMYCIN, SODIUM					
SALSALATE					
SALSOLIDINE					
SALSOLINE					
SALSOLINOL HYDROBROMIDE					
SAVINORIN A					
SANGUINARINE SULFATE					
SANTONIN					

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
SAPPANONE A DIMETHYL ETHER					
SAPPANONE A TRIMETHYL					
ETHER					
SARAFLOXACIN					
HYDROCHLORIDE					
SAXAGLIPTIN					
SCLAREOLIDE					
SCOPOLAMINE HYDROBROMIDE					
SECNIDAZOLE					
SECURININE					
SELAMECTIN					
SELEGILINE HYDROCHLORIDE					
SELENOMETHIONINE					
SEMUSTINE					
SERATRODAST					
SEROTONIN HYDROCHLORIDE					
SERTRALINE HYDROCHLORIDE					
SEVOFLURANE					
SHIKIMIC ACID					
SIBUTRAMINE HYDROCHLORIDE					
SILDENAFIL CITRATE					
SIMVASTATIN					
SINAPIC ACID					
SINAPIC ACID METHYL ETHER					
SINENSETIN					
SINOMENINE					
SIROLIMUS					
S-ISOCORYDINE (+)					
SISOMICIN SULFATE					
SITAGLIPTIN MONOPHOSPHATE					
MONOHYDRATE					
SITOSTERYL ACETATE					
SKATOLE					
SMILAGENIN					
SMILAGENIN ACETATE					
SODIUM CYCLAMATE					
SODIUM GLUCONATE					
SODIUM					
MONOFLUOROPHOSPHATE					
SODIUM NITROPRUSSIDE					
SODIUM OXYBATE					
SODIUM PHENYLACETATE					
SODIUM PHENYLBUTYRATE					
SODIUM SALICYLATE					
SODIUM TETRADECYL SULFATE					
SODIUM THIOGLYCOLATE					
SOLANESOL					
SOLANESYL ACETATE					
SOLASODINE					
SOLIDAGENONE					
SOLIFENACIN SUCCINATE					
SORBITOL					
SOTALOL HYDROCHLORIDE					
SPAGLUMIC ACID					
SPARFLOXACIN					
SPARTEINE SULFATE					
SPECTINOMYCIN					
HYDROCHLORIDE					
SPERMIDINE					
TRIHYDROCHLORIDE					
SPERMINE					
SPHONDIN					
SPIPERONE					
SPIRAMYCIN					
SPIRONOLACTONE					
STAVUDINE					
STICTIC ACID					
STIGMASTERA-4,22-DIEN-3-ONE					
STIGMASTEROL					
STREPTOMYCIN SULFATE					
STREPTOZOSIN					
STROPHANTHIDIN					
STROPHANTHIDINIC ACID					
LACTONE ACETATE					
STRYCHNINE					
STRYCHNINE METHIODIDE					
SUCCINYSULFATHIAZOLE					
SUCRALFATE					
SUCRALOSE					
SULBACTAM					
SULBENTINE					
SULCONAZOLE NITRATE					
SULFABENZAMIDE					
SULFACARBAMIDE					
SULFACETAMIDE					
SULFACHLORPYRIDAZINE					
SULFADIAZINE					

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
SULFADIMETHOXINE					
SULFADOXINE					
SULFAGUANIDINE					
SULFAMERAZINE					
SULFAMETER					
SULFAMETHAZINE					
SULFAMETHIZOLE					
SULFAMETHOXAZOLE					
SULFAMETHOXPYRIDAZINE					
SULFAMONOMETHOXINE					
SULFANILAMIDE					
SULFANILATE ZINC					
SULFANITRAN					
SULFAPHENAZOLE					
SULFAPYRIDINE					
SULFAQUINOXALINE SODIUM					
SULFASALAZINE					
SULFATHIAZOLE					
SULFINPYRAZONE					
SULFISOXAZOLE					
SULFISOXAZOLE ACETYL					
SULINDAC					
SULISOBENZONE					
SULMAZOLE					
SULOCTIDIL					
SULPIRIDE					
SUMATRIPTAN SUCCINATE					
SURAMIN HEXASODIUM					
SUXIBUZONE					
SYMCLOSENE					
SYRINGIC ACID					
TACRINE HYDROCHLORIDE					
TACROLIMUS					
TADALAFIL					
TAMOXIFEN CITRATE					
TANDUTINIB					
TANGERITIN					
TANNIC ACID					
TANSHINONE IIA					
TANSHINONE IIA SULFONATE					
SODIUM					
TAPENTadol HYDROCHLORIDE					
TAURINE					
TAZOBACTAM					
TEGASEROD MALEATE					
TEICOPLANIN [A(2-1) shown]					
TELENZEPINE HYDROCHLORIDE					
TELITHROMYCIN					
TELMISARTAN					
TEMOZOLAMIDE					
TENATOPRAZOLE					
TENIPOSIDE					
TENOFOVIR					
TENOxicam					
TENYLIDONE					
TEPOXALIN					
TERAZOSIN HYDROCHLORIDE					
TERBINAFINE HYDROCHLORIDE					
TERBUTALINE HEMISULFATE					
TERCONAZOLE					
TERFENADINE					
TERPENE HYDRATE					
TESTOSTERONE					
TESTOSTERONE PROPIONATE					
TETRACAINe HYDROCHLORIDE					
TETRACYCLINE					
HYDROCHLORIDE					
TETRAHYDROGAMBOGIC ACID					
TETRAHYDROSAPPANONE A					
TRIMETHYL ETHER					
TETRAHYDROZOLINE					
HYDROCHLORIDE					
TETRAMIZOLE HYDROCHLORIDE					
TETRANDRINE					
TETOQUINONE					
THALIDOMIDE					
THEAFLAVIN					
THEAFLAVIN MONOGALLATES					
THEANINE POTASSIUM					
THEOBROMINE					
THEOPHYLLINE					
THIABENDAZOLE					
THIAMINE					
THIAMPHENICOL					
THIAMYLAL SODIUM					
THIMEROSAL					
THIOCTIC ACID					
THIODIGLYCOL					
THIOGUANINE					

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
THIOGUANOSINE					
THIOPENTAL SODIUM					
THIORIDAZINE HYDROCHLORIDE					
THIOSTREPTON					
THIOTEP A					
THIOTHIXENE					
THIRAM					
THONZONIUM BROMIDE					
THONZYLAMINE					
HYDROCHLORIDE					
THYMOPENTIN					
THYMOQUINONE					
TIAPRIDE HYDROCHLORIDE					
TIBOLONE					
TICARCILLIN DISODIUM					
TICLOPIDINE HYDROCHLORIDE					
TIGECYCLINE					
TIGOGENIN					
TILETAMINE HYDROCHLORIDE					
TILMICOSIN					
TILORONE					
TIMOLOL MALEATE					
TIMONACIC					
TINIDAZOLE					
TOICONAZOLE					
TOIPRONIN					
TOXOLONE					
TIRATRICAL					
TOBRAMYCIN					
TODRALAZINE HYDROCHLORIDE					
TOLAZAMIDE					
TOLAZOLINE HYDROCHLORIDE					
TOLBUTAMIDE					
TOLFENAMIC ACID					
TOLMETIN SODIUM					
TOLNAFTATE					
TOLONIUM CHLORIDE					
TOLPERISONE HYDROCHLORIDE					
TOLTRAZURIL					
TOMATIDINE HYDROCHLORIDE					
TOMATINE					
TOPIRAMATE					
TOPOTECAN HYDROCHLORIDE					
TOREMIPHENE CITRATE					
TORSEMIDE					
TOTAROL					
TOTAROL-19-CARBOXYLIC ACID,					
METHYL ESTER					
TRAMADOL HYDROCHLORIDE					
TRANDOLAPRIL					
TRANEXAMIC ACID					
TRANILAST					
TRANYLCYPROMINE SULFATE					
TRAZODONE HYDROCHLORIDE					
TRETINOIN					
TRIACETIN					
TRIACETYLYRESVERATROL					
TRIAMCINOLONE					
TRIAMCINOLONE ACETONIDE					
TRIAMCINOLONE DIACETATE					
TRIAMTERENE					
TRICHLORFON					
TRICHLORMETHIAZIDE					
TRICHLORMETHINE					
HYDROCHLORIDE					
TRICLOSAN					
TRIENTINE HYDROCHLORIDE					
TRIFLUOPERAZINE					
HYDROCHLORIDE					
TRIFLUPROMAZINE					
HYDROCHLORIDE					
TRIFLURIDINE					
TRIGONELLINE					
TRIHEXYPHENIDYL					
HYDROCHLORIDE					
TRILOSTANE					
TRIMEBUTINE MALEATE					
TRIMEDLURE					
TRIMEPRAZINE TARTRATE					
TRIMETAZIDINE					
DIHYDROCHLORIDE					
TRIMETHADIONE					
TRIMETHOBENZAMIDE					
HYDROCHLORIDE					
TRIMETHOPRIM					
TRIMETOZINE					
TRIMIPRAMINE MALEATE					
TRIOXSALEN					

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
TRIPELENNAMINE CITRATE					
TRIPROLIDINE HYDROCHLORIDE					
TRIPTOPHENOLIDE					
TRISODIUM ETHYLENEDIAMINE					
TETRACETATE					
TROCLOSENE POTASSIUM					
TROLEANDOMYCIN					
TROLOX					
TROPICAMIDE					
TROPISETRON HYDROCHLORIDE					
TROSPiUM CHLORIDE					
TROXERUTIN					
TRYPTAMINE					
TRYPTOPHAN					
TUAMINOHEPTANE SULFATE					
TUBOCURARINE CHLORIDE					
TULOBUTEROL					
HYDROCHLORIDE					
TYLOSIN TARTRATE					
TYLOXAPOL					
TYRAMINE					
TYROSINE					
TYROTHRICIN					
UBIDECARENEONE					
UMBELLIFERONE					
UNDECYLENIC ACID					
URACIL					
URAPIDIL HYDROCHLORIDE					
UREA					
URETHANE					
URIDINE					
URIDINE TRIPHOSPHATE					
TRISODIUM					
URSINOIC ACID					
URSOCHOLANIC ACID					
URSODIOL					
USNIC ACID					
UTILIN					
VALACYCLOVIR					
HYDROCHLORIDE					
VALERYL SALICYLATE					
VALGANCICLOVIR					
HYDROCHLORIDE					
VALINOMYCIN					
VALPROATE SODIUM					
VALSARTAN					
VANCOMYCIN HYDROCHLORIDE					
VARDENAFIL HYDROCHLORIDE					
VECURONIUM BROMIDE					
VENLAFAXINE HYDROCHLORIDE					
VERAPAMIL HYDROCHLORIDE					
VERATRIC ACID					
VERATRINE SULFATE					
VERBENALIN					
VESAMICOL HYDROCHLORIDE					
VIDARABINE					
VIGABATRIN					
VILAZODONE HYDROCHLORIDE					
VINBLASTINE SULFATE					
VINCAMINE					
VINCRISTINE SULFATE					
VINPOCETINE					
VIOLASTYRENE					
VIOMYCIN SULFATE					
VISNAGIN					
VORICONAZOLE					
VORINOSTAT					
VULPINIC ACID					
WARFARIN					
XANTHONE					
XANTHOPTERIN					
XANTHOXYLIN					
XANTHURENIC ACID					
XANTHYLETIN					
XYLAZINE					
XYLOCARPUS A					
XYLOMETAZOLINE					
HYDROCHLORIDE					
YOHIMBIC ACID HYDRATE					
YOHIMBINE HYDROCHLORIDE					
ZALCITABINE					
ZALEPLON					
ZAPRINAST					
ZIDOVUDINE [AZT]					
ZILEUTON					
ZINC UNDECYLENATE					
ZIPRASIDONE MESYLATE					

Spectrum library	Prestwick library	Sequoia library	ENZO library	DNA damage library	Cayman library
ZOLMITRIPTAN					
ZOLPIDEM					
ZOMEPIRAC SODIUM					
ZOXAZOLAMINE					

Supplemental table 11. Clinical characteristics of the drug screen samples

Sample	Rearrangement	FAB type	FLT3-ITD	Age at diagnosis	WBC at diagnosis	SCT	Event	Time to event (months)	Dead/alive	Cause of death	Time to death (months)	Follow up time (years)	Remarks
#1	NUP98-KDM5A	M5	No	14.0974948		12.4	No	Yes	10.7	Dead	Hemorrhage	13.30623903	1.108853252
#2	NUP98-KDM5A	M7											No clinical data available
#3	NUP98-NSD1	M4	Yes	9.648392244		121.3	No	Yes	8.706551462	Alive			1.713931199
#4	NUP98-NSD1	M4	Yes	2.362815694		267.3	Yes	Yes	6.932386259	Dead	Leukemia	9.955038087	0.829586507
#5	NUP98-NSD1	M4	Yes	2.250561414		153	No	Yes	7.195225548	Alive			5.9111461

Supplemental table 12. The IC50 values of drug candidates on primary NUP98-r AML cells.

	IC50 (nM)				
	NUP98-KDM5A		NUP98-NSD1		
	1	2	3	4	5
Vincristine	25.6	17.9	>IC50	>IC50	>IC50
Fosbretabulin	142	20.2	>IC50	>IC50	>IC50
OTX-015	28.2	98.8	582	210.2	505.6
ARV825	2.4	2.9	1.8	2	2.7
Dinaciclib	8	8	8.6	7.6	7.1
CDKI-73	45.6	45	77.3	49	58.2
Omipalisib	1.6	2.2	>IC50	98.2	95.4
Trametinib	<IC50	193.6	291.9	12.3	4.2
Ganetespib	18.8	19	15.6	14.2	16.2

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