

Table S5. Detailed information of differentially expressed genes between two groups.

Gene ID	Gene Name	Log2 (CPF/Ctrl)	P value	Location
NM_146511	Olfir107	-3.282622428	3.87E-06	Chr17: 37399226-37407477
NM_001164724	Il33	-2.496961939	1.24E-05	Chr19: 29925114-29960718
NM_029733	2010005H15Rik	2.414012117	2.74E-05	Chr16: 36221468-36257444
NM_001045864	Nelfe	-2.306984398	4.10E-05	Chr17: 34850391-34856372
NM_173781	Rab6b	1.534943445	5.13E-05	Chr9: 103111787-103185276
NM_013487	Cd3d	-2.499247622	5.27E-05	Chr9: 44981786-44987339
NM_026915	Lyzl4	-2.508561811	6.56E-05	Chr9: 121577843-121642096
NM_022321	Parvg	2.112461971	8.25E-05	Chr15: 84324026-84342978
NM_001159657	Proser2	-1.985862368	0.000108264	Chr2: 6097607-6130211
NM_001253783	Def8	-1.729656512	0.000119667	Chr8: 123423527-123463270
NM_001024846	Zfp62	-1.458014633	0.000122133	Chr11: 49203292-49218816
NM_001085520	Gm12789	-1.434586568	0.000218773	Chr4: 101986626-101990053
NM_008619	Mov10	-1.434586568	0.000218773	Chr3: 104794836-104818563
NM_019687	Slc22a4	2.006541915	0.000225661	Chr11: 53983123-54028090
NM_001159393	Irf1	3.598710293	0.000239068	Chr11: 53770014-53778374
NM_019447	Hgfac	1.852962714	0.000264671	Chr5: 35044349-35046963
NM_001164466	Dpys	2.919705953	0.000323545	Chr15: 39768487-39857470
NM_026918	Zgl6	2.13154729	0.000346134	Chr7: 127050156-127087328
NM_007539	Bdkrb1	3.061893139	0.000357385	Chr12: 105603085-105605428
NM_001013771	Gm973	1.001866725	0.000460904	Chr1: 59516264-59636417
NM_001163350	Ntng1	2.449569975	0.000504242	Chr3: 109780040-110144011
NM_001048228	Dbnnd2	-2.863724542	0.000530302	Chr2: 164486106-164493319
NM_001177798	Taf6l	-1.330074496	0.000622881	Chr19: 8772522-8786417
NM_001024706	Gm5458	-2.898476092	0.000699197	Chr14: 19594139-19602581
NM_029588	1700012L04Rik	2.639087904	0.00071147	ChrX: 9283764-9284298
NM_001284359	Nprl3	-1.660638445	0.000765907	Chr11: 32225628-32267707
NM_027872	Slc46a3	1.156997679	0.000811107	Chr5: 147878437-147894815
NM_001290711	Ebf1	-2.54802646	0.0008428	Chr11: 44617317-45008091
NM_001163465	Rhpn1	-1.737353266	0.000879177	Chr15: 75704280-75715485

NM_025637	Rwdd3	-3.013016311	0.00088637	Chr3: 121155398-121171695
NM_013611	Nodal	1.513257612	0.000906047	Chr10: 61417972-61425338
NM_001032298	Bglap2	-2.763410416	0.000981367	Chr3: 88377736-88378699
NM_001042565	Wsb1	-1.026014743	0.000981755	Chr11: 79239388-79243024
NM_133236	Glcci1	-1.309443411	0.001022282	Chr6: 8509600-8597548
NM_010999	Olfir56	-3.379262139	0.001110481	Chr11: 48978889-49135387
NM_028236	Ceacam18	2.693680841	0.00125875	Chr7: 43634707-43649295
NM_019658	Shoc2	-1.674364195	0.001397835	Chr19: 53944876-54033268
NM_001166364	Fam219b	-3.407305547	0.001408028	Chr9: 57537528-57543184
NM_001164074	Tgif1	-1.584878218	0.001427195	Chr17: 70844211-70851069
NM_013642	Dusp1	1.052657212	0.00153943	Chr17: 26505590-26508519
NM_001277326	Sox6	1.955312843	0.001649786	Chr7: 115470872-116038796
NM_008854	Prkaca	-1.846060298	0.001671317	Chr8: 83972993-83996443
NM_001011775	Olfir1419	-2.138987012	0.00168093	Chr19: 11868613-11875106
NM_001163528	Itrip11	-2.203376511	0.001702614	Chr2: 127138772-127143442
NM_052994	Spock2	-1.055536933	0.001745481	Chr10: 60106219-60135198
NM_001018031	Oto11	-3.001376389	0.001751005	Chr3: 70007613-70028708
NM_010953	Oc90	3.722538053	0.001799784	Chr15: 65876053-65912397
NM_146349	Olfir1128	-3.294211205	0.001886818	Chr2: 87544607-87545542
NM_007933	Eno3	-2.236438341	0.001897962	Chr11: 70657202-70662513
NM_001080812	Cib3	2.661457476	0.001931115	Chr8: 72204378-72212819
NM_019709	Mbtps1	-1.020227257	0.001956168	Chr8: 119508156-119558735
NM_008974	Ptp4a2	-1.118210926	0.002032355	Chr4: 129811219-129850003
NM_001037502	Defb28	-1.711136448	0.002056947	Chr2: 152518255-152521447
NM_001081387	Ctcf1	1.573897373	0.00217397	Chr2: 173093609-173119525
NM_133760	Sirt4	2.113458261	0.002189283	Chr5: 115478010-115484725
NM_001252188	Epn2	-1.177109297	0.002273063	Chr11: 61546749-61579662
NM_008535	Lyl1	1.135365187	0.002376393	Chr8: 84701457-84704715
NM_172819	Dip2b	-1.540146371	0.002466308	Chr15: 100038664-100219473
NM_024286	Popdc3	2.219670228	0.002491413	Chr10: 45178098-45318452
NM_008404	Itgb2	1.958099102	0.002547343	Chr10: 77530252-77565708
NM_009155	Sepp1	2.579370458	0.002553982	Chr15: 3268547-3280508

NM_199015	Phf11d	1.954118808	0.002607661	Chr14: 59347407-59365470
NM_001011808	Olfir198	-2.028881669	0.002630094	Chr16: 59201466-59202519
NM_010275	Gdnf	-1.079347331	0.002632056	Chr15: 7810846-7837575
NM_028709	Btbd11	-1.528516722	0.002731872	Chr10: 85386814-85660292
NM_146012	Ctdsp2	-1.625241399	0.002732032	Chr10: 126978717-126999975
NM_001199154	Sncaip	-2.480105994	0.00279394	Chr18: 52767709-52915935
NM_175462	Kcnt1	2.555991796	0.002846344	Chr2: 25863734-25918273
NM_001247984	Lcp1	1.310840829	0.002867535	Chr14: 75131101-75230842
NM_008421	Kcnc1	2.997975107	0.002934281	Chr7: 46396497-46438704
NM_001163397	Elav14	-2.005045108	0.00293615	Chr4: 110203722-110351909
NM_010320	Gng8	-1.015765373	0.002994538	Chr7: 16891786-16895436
NM_001113408	Ldb1	-1.453038442	0.003056685	Chr19: 46032593-46045214
NM_019440	Irgm2	2.486999576	0.00307014	Chr11: 58199618-58222782
NM_001171035	Tmbim6	-1.181318089	0.00307215	Chr15: 99392882-99410049
NM_009603	Chrne	3.057862283	0.003168676	Chr11: 70614883-70619216
NM_027260	Vrk2	1.015599664	0.003179984	Chr11: 26471322-26593999
NM_008263	Hoxa10	-1.224704461	0.00326294	Chr6: 52231197-52240854
NM_001252542	Ndor1	-2.421766988	0.003295311	Chr2: 25244863-25255386
NM_146117	Lrrc26	2.689637746	0.003442147	Chr2: 25289915-25291180
NM_146809	Olfir1426	-2.277274014	0.003449241	Chr19: 12086746-12092013
NM_001162923	Ras112	-3.297164831	0.003532785	Chr9: 65398506-65414853
NM_001205234	Nrxn2	-1.632329941	0.003552586	Chr19: 6418731-6544169
NM_172669	Ambra1	-2.477243833	0.00362791	Chr2: 91730184-91918848
NM_134002	Csnk1g2	-2.544150709	0.003648419	Chr10: 80622838-80640749
NM_010668	Krt2	-2.394770878	0.003694555	Chr15: 101810689-101818169
NM_019455	Hpgds	1.003568482	0.003738912	Chr6: 65117293-65144908
NM_015779	Elane	4.121908299	0.003799647	Chr10: 79886247-79888215
NM_001163431	Tmem258	-1.255792193	0.003830453	Chr19: 10204014-10207824
NM_001081211	Ptafr	1.050093	0.00402643	Chr4: 132564067-132582683
NM_007388	Acp5	1.841002915	0.004045493	Chr9: 22126727-22135711
NM_153749	Mill1	2.49206862	0.004057903	Chr7: 18245347-18266092
NM_001114098	Mtc11	-2.383797638	0.004063444	Chr17: 66336982-66449750

NM_010172	F7	2.028300677	0.004099538	Chr8: 13026034-13035809
NM_026205	Rnf151	-1.655147066	0.004161151	Chr17: 24715839-24718057
NM_001113367	Boll	1.718142202	0.004172045	Chr1: 55248658-55363469
NM_020279	Ccl28	-1.781247547	0.004376171	Chr13: 119623819-119654359
NM_001198570	Abi2	-1.246718647	0.004459492	Chr1: 60409619-60481158
NM_028864	Zc3hav1	3.45010952	0.004465523	Chr6: 38305286-38354603
NM_001039038	Nhlrc4	1.814092668	0.004640324	Chr17: 25942233-25944961
NM_001081194	Kcnh4	2.142218829	0.004752803	Chr11: 100740376-100759942
NM_175456	Abra	2.256454648	0.004774847	Chr15: 41864076-41869720
NM_173758	Vwa8	1.58621702	0.004961384	Chr14: 78849052-79202310
NM_001093764	Myadm	3.078956604	0.005044878	Chr7: 3289080-3300442
NM_008741	Nsg2	1.484230664	0.005161303	Chr11: 32000463-32018007
NM_001123386	Cdyl	-1.220147011	0.00533465	Chr13: 35659833-35874063
NM_001109988	Nrep	-1.84130815	0.005412773	Chr18: 33437019-33464029
NM_144805	Tmem40	2.059606065	0.005648376	Chr6: 115729131-115762410
NM_001164655	9530053A07Rik	-2.589062239	0.00570841	Chr7: 28129466-28164811
NM_001252218	Rpl31	-2.148728763	0.005784827	Chr1: 39367842-39371911
NM_001163660	Nkd1	-2.431160911	0.005840631	Chr8: 88521354-88594884
NM_001204910	AI607873	1.540512382	0.005869193	Chr1: 173723427-173741747
NM_001284218	Agtbbp1	-1.270909313	0.005947396	Chr13: 59445742-59585227
NM_144548	Il23r	2.946941314	0.005955009	Chr6: 67422932-67491855
NM_025332	Gtpbp8	-1.089400898	0.006029309	Chr16: 44736768-44746363
NM_010059	Dmc1	2.398663004	0.006096696	Chr15: 79561497-79605109
NM_028223	Tmem175	-1.08913011	0.006162261	Chr5: 108629770-108648782
NM_138306	Dgkz	-1.325532289	0.006227379	Chr2: 91932824-91965587
NM_145741	Gdf10	1.815630753	0.006446464	Chr14: 33923587-33937983
NM_178700	Grsf1	-1.130512502	0.006465558	Chr5: 88659448-88676171
NM_027223	Cinp	-1.339742081	0.006536502	Chr12: 110872610-110889145
NM_010679	Lalba	-2.568934655	0.006597342	Chr15: 98480400-98482721
NM_009697	Nr2f2	-1.257361034	0.0067087	Chr7: 70351944-70366735
NM_010398	H2-T23	1.785428931	0.006739522	Chr17: 36029773-36032855
NM_001122768	Lrrc8d	-1.977369972	0.006806736	Chr5: 105699969-105832436

NM_001243073	Sema3a	2.011669355	0.006874476	Chr5: 13125414-13602565
NM_001161817	Myo1b	-1.096933285	0.006880308	Chr1: 51749765-51916071
NM_001081025	Maats1	-1.464583143	0.006892015	Chr16: 38322181-38341812
NM_146291	Olfir1484	-2.659011764	0.006901002	Chr19: 13583511-13588832
NM_172784	Lrp11	1.040927955	0.006929885	Chr10: 7589800-7625483
NM_001164643	Trappc9	1.002184094	0.006996195	Chr15: 72589620-73061204
NM_146148	C8a	2.385205814	0.007025979	Chr4: 104815679-104876398
NM_001042719	Ddhd1	-1.340944953	0.007100753	Chr14: 45588467-45658143
NM_001271578	Sec1	2.840460466	0.007128808	Chr7: 45677686-45694402
NM_007824	Cyp7a1	2.998399125	0.007132556	Chr4: 6265612-6275633
NM_001177567	Otogl	1.146369931	0.007165035	Chr10: 107760531-107912134
NM_194051	Rtn4	-2.841831867	0.007225985	Chr11: 29692947-29744331
NM_001033455	Ccdc27	1.341383046	0.007298537	Chr4: 154026639-154042677
NM_001200025	1700015F17Rik	-1.718299376	0.007312205	Chr5: 5437827-5479143
NM_001285855	Matk	1.164703372	0.00736317	Chr10: 81252935-81263365
NM_001289878	Per3	-1.211359284	0.007401486	Chr4: 151003652-151044665
NM_001284429	Smtn	-1.656363144	0.007421486	Chr11: 3517523-3540612
NM_001163583	Prom1	-2.000518663	0.007528024	Chr5: 43993620-44102032
NM_001278256	Pmp	1.948857508	0.007548931	Chr2: 131909928-131938429
NM_009317	Tal2	2.737812939	0.007707893	Chr4: 53779705-53788712
NM_001256107	Mib2	-1.212360195	0.007755128	Chr4: 155654677-155669198
NM_054060	Psg25	-2.67146374	0.00776778	Chr7: 18519702-18532269
NM_001085370	Speg	-2.363786772	0.007776739	Chr1: 75375297-75432320
NM_153788	Acap1	1.38983224	0.007834412	Chr11: 69881567-69895539
NM_010168	F2	4.043022793	0.00787466	Chr2: 91625329-91636407
NM_001290427	Frmpd4	-2.058505994	0.007885576	ChrX: 167471309-168577231
NM_153782	Fam20a	1.559629983	0.008062698	Chr11: 109669749-109722279
NM_008277	Hpd	4.208527495	0.008092756	Chr5: 123171807-123182727
NM_016780	Itgb3	1.158904076	0.008158154	Chr11: 104608000-104670476
NM_001201391	Hbb-bs	1.901525997	0.008250831	Chr7: 103826534-103828096
NM_001113356	C1rb	3.404603662	0.008309634	Chr6: 124570294-124581171
NM_001161483	No14	1.534598821	0.008323273	Chr18: 22693181-23041653

NM_172708	Dok7	1.204500212	0.008402949	Chr5: 35056766-35080964
NM_001083955	Hba-a2	2.452998656	0.008505545	Chr11: 32296489-32297298
NM_001136058	Crmp1	3.52434481	0.008569183	Chr5: 37241940-37292133
NM_001143956	Mettl11b	-3.113855102	0.008651351	Chr1: 163702256-163725232
NM_019703	Pfkp	1.471542068	0.008654129	Chr13: 6579768-6648777
NM_013764	Dguok	-1.46231166	0.008797187	Chr6: 83480217-83506969
NM_001177542	C87977	-2.189982394	0.008869384	Chr4: 144206775-144213318
NM_001289687	Arhgef3	1.192883559	0.009046313	Chr14: 27114899-27403911
NM_028473	3110079O15Rik	2.315674522	0.009333843	Chr1: 87470271-87475482
NM_001013609	Tex24	-2.533027017	0.009373398	Chr8: 27344394-27349188
NM_001082976	Tc2n	1.523825296	0.009391079	Chr12: 101645443-101718523
NM_175433	Zfp710	-2.385081457	0.009531137	Chr7: 80024814-80094173
NM_016708	Npy5r	1.346139448	0.009549339	Chr8: 66679965-66688094
NM_001195265	Pdzd7	-1.045777632	0.00965791	Chr19: 45026906-45046614
NM_175512	Dhrs9	2.833028571	0.00966951	Chr2: 69380445-69404533
NM_021488	Ghrl	-1.31488802	0.00970651	Chr6: 113716119-113719880
NM_001162950	Hif3a	1.909889282	0.009754111	Chr7: 17031507-17062427
NM_198623	Ubqln3	-2.351943442	0.009783201	Chr7: 104140623-104143279
NM_028790	Acot12	1.795940847	0.009937087	Chr13: 91741512-91786148
NM_001033378	A430078G23Rik	1.829604024	0.009993319	Chr8: 3353415-3390299
NM_001285793	B4galt4	1.523971041	0.010015804	Chr16: 38742264-38769049
NM_033569	Cnm2	2.183632167	0.010018741	Chr19: 46761596-46878795
NM_011850	Nr0b2	3.134470323	0.01016306	Chr4: 133553376-133556536
NM_177446	Scgb2b24	2.459625842	0.010269908	Chr7: 33737190-33739312
NM_021412	Mmp19	1.634996935	0.010300265	Chr10: 128790910-128800824
NM_025470	Mptx1	1.634996935	0.010300265	Chr1: 174330518-174332873
NM_022882	Lpin2	-2.28705757	0.010313353	Chr17: 71204654-71231505
NM_022014	Fn3k	2.906684855	0.010323038	Chr11: 121434913-121450491
NM_030174	Mctp1	1.67665732	0.010337415	Chr13: 76384535-77031810
NM_011536	Tbx4	1.715916177	0.010435523	Chr17: 71204654-71231505
NM_178678	Lrrtm3	1.813985462	0.01050923	Chr10: 63928472-64090277
NM_153584	Fam214a	-1.796477125	0.010534025	Chr9: 74952884-75032468

NM_001038655	Gng7	1.349476042	0.010640492	Chr10: 80948624-81014945
NM_008273	Hoxd11	-1.164248513	0.010646456	Chr2: 74679557-74687016
NM_025503	1700029P11Rik	2.530818413	0.010658704	Chr15: 81980540-81981563
NM_010251	Gabra4	1.315915172	0.010691136	Chr5: 71569749-71658308
NM_027961	Wfdc3	2.987365926	0.010712593	Chr2: 164731180-164745931
NM_008196	Gzmk	2.762225645	0.010772853	Chr13: 113171608-113225908
NM_001163609	Psmc8	1.513021991	0.010781523	Chr18: 14706151-14762299
NM_001199631	Fkbp8	-1.660737912	0.010804751	Chr8: 70527724-70535328
NM_009522	Wnt3a	1.833504074	0.010813287	Chr11: 59248033-59290752
NM_181584	Gab3	1.035443262	0.010832607	ChrX: 74966843-75085458
NM_028054	Zfyve19	-1.024234316	0.010853017	Chr2: 119208617-119217049
NM_153792	Traf7	2.196023769	0.011108783	Chr17: 24508562-24527938
NM_018738	Igtp	1.135042507	0.011110415	Chr11: 58199556-58207591
NM_001162500	Parvg	-2.212513991	0.011224729	Chr15: 84324026-84342978
NM_001164632	Mum111	2.042068749	0.011423346	ChrX: 139210042-139238335
NM_001039155	Triobp	-1.628296501	0.011468971	Chr15: 78947724-79005869
NM_001114332	Slc16a10	1.346813702	0.011604635	Chr10: 40033532-40142258
NM_029945	Smpd4	-1.179973354	0.011645367	Chr16: 17619363-17621995:1
NM_145507	Dars	-2.747984434	0.01169622	Chr1: 128363707-128417368
NM_027456	Armc9	1.919311013	0.0117477	Chr1: 86154780-86278284
NM_001290526	Nhs	-1.228186074	0.01181279	ChrX: 161833296-162159730
NM_027622	Tex19.2	3.539878455	0.011886355	Chr11: 121116215-121118677
NM_008416	Junb	2.056064765	0.011905265	Chr8: 84974484-84978718
NM_001037987	Edil3	-2.096425813	0.01206437	Chr13: 88821472-89323223
NM_010562	Ilk	-1.584846154	0.012096056	Chr7: 105736592-105742925
NM_023396	Rprm	-1.348264075	0.012102535	Chr2: 54084093-54085552
NM_001291067	Foxa2	2.257807379	0.012194614	Chr2: 148042877-148046969
NM_001011751	Olfir298	-1.009923083	0.012204593	Chr7: 86486322-86492484
NM_001081370	Shank2	-1.009923083	0.012204593	Chr7: 144001928-144424494
NM_001177697	Ablim2	-1.009923083	0.012204593	Chr5: 35757880-35884973
NM_008588	Mesp1	-1.009923083	0.012204593	Chr7: 79792241-79793788
NM_011380	Six2	-1.56039776	0.012302811	Chr17: 85684277-85688274

NM_028773	Sash3	1.061088586	0.012427917	ChrX: 48146436-48161565
NM_033374	Dock2	1.001621188	0.012546683	Chr11: 34226815-34783892
NM_001252292	Mest	-1.033400257	0.012603245	Chr6: 30723547-30748465
NM_001177779	Dlg3	-1.379333477	0.012637599	ChrX: 100767722-100818410
NM_023624	Lrat	1.457319034	0.012692607	Chr3: 82892579-82903973
NM_011212	Ptpre	1.168633605	0.012722702	Chr7: 135537481-135686293
NM_001130186	Jade1	1.989915006	0.012793949	Chr3: 41555731-41616864
NM_001271599	Sort1	-1.901410951	0.012927969	Chr3: 108284082-108361511
NM_013851	Abca8b	1.129563537	0.012972904	Chr11: 109932190-109995845
NM_178399	3110035E14Rik	1.110394694	0.013113434	Chr1: 9601199-9627143
NM_001163512	Rgs12	-2.489523165	0.01311462	Chr5: 34949445-35039644
NM_009374	Tgm3	1.658391357	0.013149691	Chr2: 130012349-130050399
NM_001102615	Kif19a	1.226484489	0.013196042	Chr11: 114765388-114790739
NM_009801	Car2	2.090308237	0.013207662	Chr3: 14886273-14900770
NM_177920	Serpina7	3.480615974	0.013220917	ChrX: 139079257-139085236
NM_001044383	Ubtf	-2.217457857	0.013413982	Chr11: 102304560-102319742
NM_019950	Chst5	-1.081517372	0.013442069	Chr8: 111889136-111910447
NM_001276493	Dag1	-1.813929136	0.013570152	Chr9: 108204634-108263958
NM_177274	Negr1	-1.462097467	0.013610281	Chr3: 156561794-157316445
NM_001271628	Gja5	1.645787064	0.013748072	Chr3: 96904693-97077416
NM_145981	Phyhip	1.28166094	0.013748331	Chr14: 70457476-70468832
NM_153104	Phospho1	1.494285194	0.013761086	Chr11: 95824499-95832140
NM_008654	Ppp1r15a	1.578408932	0.013796874	Chr7: 45522916-45526268
NM_175240	Fam187b	2.421030688	0.013800674	Chr7: 30973790-30989726
NM_008207	H2-T24	1.04241917	0.014029355	Chr17: 36005695-36020560
NM_026278	Lrp2bp	1.104990724	0.01410448	Chr8: 45999303-46029477
NM_010266	Gda	1.839556625	0.014176303	Chr19: 21391307-21473445
NM_144941	Map7d1	-1.518222534	0.01418533	Chr4: 126232167-126256343
NM_001003668	Krt83	2.433109842	0.014371609	Chr15: 101485130-101491512
NM_008936	Prop1	-1.779544005	0.014438916	Chr11: 50950806-50953765
NM_001083916	Kdf1	1.85042577	0.014442455	Chr4: 133518963-133530790
NM_001163454	Prorsd1	1.012071901	0.014448723	Chr11: 29511757-29515033

NM_001039354	Lin7a	1.847211733	0.014459064	Chr10: 107271686-107421474
NM_181390	Mustn1	1.028726258	0.014462643	Chr14: 30879200-30881610
NM_010567	Inpp1	-1.429297485	0.014515541	Chr7: 101822632-101838229
NM_009034	Rbp2	2.401507155	0.01457365	Chr9: 98486115-98509781
NM_010609	Kcnk7	1.358990693	0.014699607	Chr19: 5704367-5707101
NM_001271461	Cd82	2.622795419	0.014731376	Chr2: 93419111-93463140
NM_007757	Cpox	1.361635605	0.014741325	Chr16: 58670208-58680391
NM_029530	Lamp5	-1.186715601	0.014874783	Chr2: 136052239-136069917
NM_001184709	Tfdp2	1.320160671	0.01489681	Chr9: 96196275-96323646
NM_001160146	Tmem9	2.15803876	0.014929239	Chr1: 136008150-136035342
NM_001170866	Ncald	1.548624721	0.014970763	Chr15: 37366175-37792570
NM_011924	Avpr1b	-1.439441677	0.015017723	Chr1: 131599239-131612000
NM_007870	Dnase1l3	3.656518084	0.015048168	Chr14: 7964533-7994573
NM_001035854	Ap2b1	-1.78989666	0.015174053	Chr11: 83299024-83405035
NM_001122948	Tfap2a	-2.413391251	0.015219151	Chr13: 40715302-40738376
NM_001195083	Phc2	-1.170590129	0.015334096	Chr4: 128654702-128752881
NM_007857	Dhh	2.23480514	0.015629441	Chr15: 98891152-98898540
NM_139061	Vps54	-2.191691198	0.015791747	Chr11: 21239281-21321136
NM_001081658	Dytn	-1.949543871	0.015958357	Chr1: 63622851-63686927
NM_029144	4930503B20Rik	2.246108353	0.015997085	Chr3: 146645193-146651317
NM_198246	Yars2	-1.732985516	0.016056388	Chr16: 16302965-16309640
NM_001290731	Hoxd8	-1.260300946	0.016131875	Chr2: 74704615-74707933
NM_008677	Ncf4	1.397783937	0.016159028	Chr15: 78244801-78262580
NM_001146022	Wdfy4	1.037199474	0.01626651	Chr14: 32959547-33185508
NM_010483	Htr5b	-1.924742963	0.01626959	Chr1: 121509842-121528465
NM_138945	Pou4f3	-2.584009563	0.016293881	Chr18: 42394539-42397249
NM_147112	Olfir559	1.365471516	0.016347254	Chr7: 102723207-102727491
NM_008806	Pde6b	-1.313516987	0.016365923	Chr5: 108388391-108432397
NM_025758	Asb17	2.777729279	0.016366156	Chr3: 153844209-153855082
NM_001033315	Hipk4	-1.020324831	0.016440194	Chr7: 27523267-27531175
NM_172648	Ifi205	2.038740956	0.016681914	Chr1: 174011998-174031810
NM_029067	Spata17	1.548528101	0.016703103	Chr1: 187044648-187215465

NM_153520	Opalin	1.548528101	0.016703103	Chr19: 41062474-41077113
NM_009619	Adam3	-2.857852976	0.016717376	Chr8: 24677225-24725852
NM_016685	Comp	1.40549543	0.016882306	Chr8: 70373558-70382066
NM_001195189	4930469G21Rik	-2.695473199	0.016906274	Chr1: 161156843-161159314
NM_198636	Acss3	-1.700409793	0.01694031	Chr10: 106933517-107123668
NM_146357	Olfir168	2.144332692	0.016966335	Chr16: 19529274-19535555
NM_012027	Mprrip	-1.161020204	0.016999946	Chr11: 59661305-59780860
NM_009783	Cacna1g	-1.194551638	0.017080386	Chr11: 94408391-94474198
NM_181988	Rerg	-1.194551638	0.017080386	Chr6: 137054825-137170497
NM_001168469	Ube2m	-1.082518933	0.017131149	Chr7: 13035120-13038275
NM_010352	Gsg1	2.34489341	0.017169286	Chr6: 135237326-135254351
NM_021543	Pcdh8	-2.145458869	0.017174742	Chr14: 79766775-79771312
NM_001145960	Slc37a2	-1.595925134	0.017204697	Chr9: 37227585-37255738
NM_001243051	Atp6v0a1	-1.342101161	0.01727504	Chr11: 101009452-101063719
NM_001005508	Arhgap30	1.345064764	0.017343259	Chr1: 171388954-171410298
NM_007891	E2f1	-2.171132982	0.017354427	Chr2: 154559407-154569892
NM_027603	4921511H03Rik	1.649913276	0.017482603	Chr5: 7304119-7311491
NM_080729	Il25	-3.20837368	0.017591288	Chr14: 54932695-54935837
NM_010289	Gja10	2.515035531	0.01768181	Chr4: 32596960-32602760
NM_145835	Lctl	2.648135666	0.017873026	Chr9: 64117147-64138118
NM_152923	Kcnq3	1.304723794	0.017891936	Chr15: 65986387-66286642
NM_139128	Coro6	-2.326729024	0.017918204	Chr11: 77462411-77470484
NM_001289709	Sh3glb2	-1.177109781	0.017989637	Chr2: 30344809-30359337
NM_030560	Cwc22	-1.023919135	0.018011366	Chr2: 77881159-77946375
NM_011095	Pirb	1.882712464	0.018220432	Chr7: 3711409-3720391
NM_001085477	Olfir765	-2.217612791	0.018248839	Chr10: 129044817-129049998
NM_020502	Tas2r108	2.386301597	0.018255287	Chr6: 40493529-40494541
NM_023504	Nkx2-4	2.284521005	0.018302855	Chr2: 147083316-147085445
NM_001289579	Chfr	-1.104632596	0.018364132	Chr5: 110135842-110171972
NM_023868	Ryr2	1.781124704	0.018371968	Chr13: 11553102-12106945
NM_026805	Svop	2.227962621	0.018401268	Chr5: 114026910-114091570
NM_146325	Olfir554	1.742417885	0.018412387	Chr7: 102638432-102642555

NM_028356	Zbtb25	-1.8626434	0.01847985	Chr12: 76347782-76369602
NM_207573	Olfir1380	-2.417301341	0.018578626	Chr11: 49556878-49565859
NM_177205	9430015G10Rik	-1.289174903	0.018595499	Chr4: 156109982-156127265
NM_176971	Rab9b	1.363785566	0.018656525	ChrX: 136858147-136868755
NM_053081	Fancg	-1.838383683	0.018680017	Chr4: 43002343-43010506
NM_031494	Zfp275	-2.056877124	0.018721345	ChrX: 73342621-73359080
NM_201646	Btbd6	-1.973771039	0.018723072	Chr12: 112976482-112978945
NM_001083967	Tcf4	-1.208990008	0.018725207	Chr18: 69343356-69689079
NM_025549	Arrdc4	-2.132764676	0.018731307	Chr7: 68736995-68749241
NM_181417	Csrp2bp	-1.138948432	0.018910603	Chr2: 144373803-144393402
NM_001037906	Nell1	-1.033875942	0.019088742	Chr7: 49974864-50866608
NM_001164763	Rarres1	1.337516401	0.019117528	Chr3: 67478972-67515523
NM_013633	Pou5f1	4.06113638	0.019159739	Chr17: 35506018-35510772
NM_177717	4732456N10Rik	-2.111392439	0.019254233	Chr15: 101552356-101562950
NM_028534	Smap1	-1.445866537	0.019306257	Chr1: 23844846-23922317
NM_013738	Plek2	1.129037091	0.019311501	Chr12: 78888691-78906964
NM_024271	1700016D06Rik	-1.934065272	0.019367264	Chr8: 11654924-11701063
NM_178084	Zak	1.312455691	0.019386575	Chr2: 72285637-72442610
NM_008226	Hcn2	1.467057334	0.019423916	Chr10: 79716634-79736108
NM_147045	Olfir683	-2.279485587	0.019600504	Chr7: 105140839-105147012
NM_024269	Arl2bp	-1.079314083	0.019790201	Chr8: 94666600-94674425
NM_001164041	Smad5	-1.309313283	0.019898121	Chr13: 56703010-56742377
NM_018792	Hils1	-1.309313283	0.019898121	Chr11: 94967593-94968456
NM_023741	Pr18a8	2.045649891	0.019898197	Chr13: 27506968-27513217
NM_001100461	Pnma5	2.600966157	0.020010542	ChrX: 73033981-73037103
NM_001122661	Speer4e	-2.051980999	0.020120645	Chr5: 14933221-14938429
NM_153795	Fermt3	1.245254347	0.020225514	Chr19: 6998958-7019469
NM_178720	Zpld1	2.69317535	0.020278227	Chr16: 55225175-55297986
NM_153145	Abca8a	3.203290341	0.02037805	Chr11: 110025634-110095978
NM_008381	Inhbb	2.028318648	0.02038563	Chr1: 119415465-119422248
NM_146541	Olfir1361	-1.782596393	0.02039073	Chr13: 21656880-21663386
NM_001101453	Ace3	-3.18585159	0.020415637	Chr11: 105994675-106005443

NM_011799	Cdc6	-2.004482466	0.020506917	Chr11: 98907801-98923940
NM_025905	Ttc23	-1.382727861	0.020514894	Chr7: 67647410-67762912
NM_001167705	Serpina3a	4.120944346	0.020680558	Chr12: 104112724-104121896
NM_001159507	Grip2	1.350435289	0.02089235	Chr6: 91761509-91827250
NM_009654	Alb	5.656476163	0.021001621	Chr5: 90460897-90476602
NM_001164042	Smad5	-1.023106332	0.021004351	Chr13: 56703010-56742377
NM_001272045	Ces2h	2.680868791	0.021140535	Chr8: 105000853-105021178
NM_001271963	Eya2	-1.795743624	0.021162288	Chr2: 165595032-165771727
NM_133662	Ier3	1.301859617	0.021204045	Chr17: 35821684-35822923
NM_008653	Mybpc3	3.298120241	0.021237158	Chr2: 91118144-91136516
NM_025771	Cntnap2	1.111037878	0.021293933	Chr6: 45059357-47304213
NM_030699	Ntng1	-2.443424069	0.02129686	Chr3: 109780040-110144011
NM_026269	Get4	-1.245412327	0.021350535	Chr5: 139252324-139270051
NM_001167680	Rhbdf2	-1.398383007	0.021376583	Chr11: 116598165-116627019
NM_009990	Clip2	-1.720681087	0.021411542	Chr5: 134489383-134552434
NM_001199360	Tmem164	-2.234197468	0.02145945	ChrX: 142681406-142843494
NM_001104645	Vmn2r55	-1.72168399	0.021461721	Chr7: 12651706-12684991
NM_147085	Olfir571	-1.72168399	0.021461721	Chr7: 102905090-102917536
NM_001177617	Arpp21	2.49448779	0.021500345	Chr9: 112065091-112235938
NM_027066	Tmem89	-1.516432974	0.021589151	Chr9: 108914619-108915563
NM_001009979	Pde1a	2.490527966	0.021607815	Chr2: 79834453-80129458
NM_181061	Cenpk	-1.226444711	0.021618432	Chr13: 104228611-104252392
NM_007420	Adrb2	1.843250919	0.02163075	Chr18: 62177817-62179959
NM_147000	Olfir173	-2.110741689	0.021858352	Chr16: 58795207-58800268
NM_197944	Hsh2d	2.591168731	0.02195229	Chr8: 72189638-72201527
NM_010164	Eya1	-1.252932555	0.0219658	Chr1: 14168954-14310235
NM_153800	Arhgap22	1.235656699	0.022004383	Chr14: 33214026-33369934
NM_026185	Abhd15	1.026226625	0.022074835	Chr11: 77515121-77538607
NM_001276383	Spns2	1.807147344	0.022214764	Chr11: 72451638-72489904
NM_011268	Rgs9	1.156461875	0.022225138	Chr11: 109225355-109298129
NM_001177980	Pde4b	1.731670969	0.022300411	Chr4: 102087543-102607259
NM_027837	Isx	3.519035648	0.022379681	Chr8: 74873173-74893506

NM_020487	Prss21	-2.287538272	0.02245336	Chr17: 23868056-23873114
NM_010019	Dapk2	1.078742679	0.022635907	Chr9: 66158223-66272242
NM_175025	Atp2c1	-1.56695827	0.022747482	Chr9: 105403539-105527319
NM_028421	Zc3hav1	1.422667779	0.022926972	Chr6: 38305286-38354603
NM_177900	Hapln4	2.776917147	0.022948755	Chr8: 70083457-70090862
NM_001252192	Eya1	-1.989933737	0.023052728	Chr1: 14168954-14310235
NM_146285	Olfir801	-1.813408757	0.023055538	Chr10: 129666989-129673865
NM_001011819	Olfir312	-1.941254989	0.02307643	Chr11: 58829237-58834780
NM_013484	C2	1.901053922	0.023125144	Chr17: 34862604-34898265
NM_011315	Saa3	2.002369794	0.023480541	Chr7: 46711998-46715700
NM_020259	Hhip	1.292456201	0.023516672	Chr8: 79965851-80058006
NM_011302	Rs1	1.279964165	0.023568082	ChrX: 160768013-160799663
NM_001253781	Prlr	2.689626967	0.023631706	Chr15: 10177238-10349180
NM_011183	Psen2	2.011267458	0.023702216	Chr1: 180227004-180263438
NM_007781	Csf2rb2	1.629674604	0.023706317	Chr15: 78282507-78305721
NM_211358	Slc35c1	-1.033538397	0.023794197	Chr2: 92452764-92460538
NM_013503	Drd5	-2.340632533	0.023796577	Chr5: 38319367-38322518
NM_001177470	Gm7325	-1.763675488	0.023824304	Chr17: 45600971-45602102
NM_001104547	Vmn2r96	-1.605242025	0.023884918	Chr17: 18581727-18598157
NM_027630	Ccdc105	-1.452871929	0.023894905	Chr10: 78746926-78753065
NM_010082	Adam28	-1.943292323	0.023912521	Chr14: 68606027-68655842
NM_001198914	Myb	-1.655061031	0.023985508	Chr10: 21124935-21160984
NM_133977	Trf	3.944484422	0.02429511	Chr9: 103204001-103230444
NM_030704	Hspb8	1.149870395	0.02435921	Chr5: 116408491-116422864
NM_134200	Vmn1r237	-2.164265189	0.024363136	Chr17: 21313963-21314912
NM_031381	Tex13	3.898325751	0.024557432	ChrX: 140808307-140813433
NM_001104637	Vmn2r22	-3.279171608	0.024600899	Chr6: 123609758-123650635
NM_001198969	Itsn2	-1.270222935	0.024645584	Chr12: 4592638-4713962
NM_001105060	Vmn2r63	-2.229846309	0.024779739	Chr7: 42903251-42933789
NM_001004061	Fam170a	-2.262470389	0.024830089	Chr18: 50278369-50283019
NM_010234	Fos	3.090575653	0.024845074	Chr12: 85473890-85477273
NM_026400	Dnajb11	2.609823956	0.024998212	Chr16: 22857845-22879634

NM_007468	Apoa4	3.367300937	0.025044055	Chr9: 46240696-46243459
NM_011666	Uba3	-1.363872142	0.025100201	Chr6: 97183670-97205647
NM_178164	Ptbp3	1.450605114	0.025155703	Chr4: 59471868-59549364
NM_028910	Olfir701	-2.07639939	0.025246331	Chr7: 106814129-106821472
NM_009008	Rac2	1.184898335	0.025278817	Chr15: 78559167-78572783
NM_184052	Igf1	2.030172951	0.025293584	Chr10: 87858265-87937042
NM_001098799	Tox2	1.149048787	0.025300101	Chr2: 163203125-163324170
NM_019563	Cited4	1.144431568	0.025521248	Chr4: 120666572-120667820
NM_183086	Mrps10	-1.366804103	0.0255664	Chr17: 47368887-47381417
NM_028716	Phf19	-1.06554236	0.025627492	Chr2: 34893757-34914026
NM_007617	Cav3	1.465190481	0.025696962	Chr6: 112459505-112472872
NM_010005	Cyp2d10	3.479852266	0.025716101	Chr15: 82402846-82407195
NM_138301	Trpm2	1.117235831	0.025837836	Chr10: 77907722-77970563
NM_001177794	Sertad4	-1.646030271	0.02585256	Chr1: 192844488-192855756
NM_011332	Ccl17	2.09050564	0.026373685	Chr8: 94810453-94812036
NM_007428	Agt	4.510916512	0.026391589	Chr8: 124556534-124569706
NM_008821	Pet2	3.379662105	0.026463777	ChrX: 89403848-89409689
NM_001038676	Obox7	-1.528191934	0.026501159	Chr7: 14659496-14665996
NM_001285845	Paqr7	-1.528191934	0.026501159	Chr4: 134496697-134510235
NM_001172147	Rbm41	-1.084068786	0.026665452	ChrX: 139889511-139998595
NM_025325	Hao	2.391912099	0.026679656	Chr17: 83831356-83846790
NM_001286502	Pdyn	-1.898523301	0.026713194	Chr2: 129686565-129699844
NM_011857	Tenm3	1.119786188	0.026759068	Chr8: 48227682-48843951
NM_001198794	AB124611	-1.88835093	0.026785429	Chr9: 21526176-21545333
NM_022987	Zic5	2.243237997	0.026890923	Chr14: 122456795-122465677
NM_001271705	Pgf	-2.420911193	0.026910322	Chr12: 85166635-85177790
NM_010371	Gzmc	-2.078073252	0.026992756	Chr14: 56231441-56234656
NM_028601	Zmiz2	-1.092155109	0.027220058	Chr11: 6389074-6406158
NM_146339	Olfir77	-2.105780097	0.027264358	Chr9: 19916865-19929124
NM_001101546	Tmem233	-1.411233495	0.027284766	Chr5: 116038755-116083244
NM_001135150	Slc39a8	1.881759703	0.02736244	Chr3: 135825279-135888572
NM_009570	Zfy1	2.307657024	0.027371771	ChrY: 725128-797409

NM_001008423	Ccdc177	-1.252677176	0.027392726	Chr12: 80754043-80760687
NM_007780	Csf2rb	1.262450856	0.027633641	Chr15: 78325798-78353847
NM_001139520	Samhd1	-1.560156949	0.027717491	Chr2: 157097533-157135265
NM_001033214	E330034G19Rik	-1.809952228	0.027939838	Chr14: 24293214-24309966
NM_027981	2310002L09Rik	3.202928634	0.027974468	Chr4: 73939371-73950846
NM_011661	Tyr	-1.90715544	0.027987116	Chr7: 87424771-87493512
NM_028075	Tnfrsf13c	-1.819815387	0.028156111	Chr15: 82221743-82224369
NM_008593	Foxd2	-1.210590832	0.028221786	Chr4: 114906282-114908873
NM_007800	Ctsg	3.457131007	0.028307965	Chr14: 56099881-56102574
NM_133862	Fgg	4.927640675	0.028359695	Chr3: 83007724-83015049
NM_001015889	Taf9	-1.374539383	0.028402055	Chr13: 100651579-100656060
NM_001205353	Gramd4	-1.045894851	0.028477992	Chr15: 86057695-86137634
NM_001163557	Ppfibp2	1.527422845	0.028555297	Chr7: 107595207-107748583
NM_177897	B4galnt4	-1.049680408	0.028674949	Chr7: 141061104-141072400
NM_001024842	Hoxc11	-1.3612298	0.028700023	Chr15: 102954427-102957708
NM_001033440	Gm1587	1.886876168	0.028700981	Chr14: 77793945-77798968
NM_133884	Gpn2	-1.532399623	0.028711025	Chr4: 133584362-133591735
NM_013703	Vldlr	-1.146531111	0.028729575	Chr19: 27216484-27254231
NM_011190	Psme2	-1.183181885	0.028955658	Chr14: 55587441-55591113
NM_030098	Rnase6	1.335728442	0.02895806	Chr14: 51123908-51132187
NM_001253705	Pym1	-1.702296201	0.029017192	Chr10: 128747889-128766564
NM_001146080	Cntfr	-2.052172093	0.029032606	Chr4: 41657498-41697089
NM_133809	Kmo	2.604450192	0.029179582	Chr1: 175620381-175662116
NM_001001320	Tbx10	-1.219624295	0.029182266	Chr19: 3992752-3999511
NM_146943	Olfir347	-1.219624295	0.029182266	Chr2: 36731902-36737640
NM_008639	Mtnr1a	2.251782951	0.029215315	Chr8: 45069137-45088506
NM_008657	Myf6	2.799803451	0.029255222	Chr10: 107492853-107494737
NM_013643	Ptpn5	-1.468698995	0.029299222	Chr7: 47077795-47133684
NM_029796	Lrg1	1.95646353	0.029336541	Chr17: 56119680-56121946
NM_008611	Mmp8	3.252856113	0.029400962	Chr9: 7558456-7568485
NM_172767	Vwa5a	-1.590484721	0.029594665	Chr9: 38718268-38743337
NM_001111062	Comt	-1.597280705	0.02966079	Chr16: 18406886-18426852

NM_001277310	Mea1	-1.220252075	0.029666545	Chr17: 46681137-46683105
NM_015811	Rgs1	1.85969203	0.029834739	Chr1: 144242296-144249242
NM_145635	Adig	2.251161375	0.029909703	Chr2: 158502612-158508198
NM_080853	Slc17a6	-1.353514029	0.029977241	Chr7: 51622006-51671119
NM_030596	Dsg3	4.299136289	0.029987849	Chr18: 20510304-20541310
NM_009400	Tnfrsf18	-1.31015437	0.030001392	Chr4: 156026164-156028895
NM_001172054	Il11ra1	-2.271750149	0.030030799	Chr4: 41699989-41769474
NM_001190327	Tmsb10	-1.415387384	0.030127674	Chr6: 72957347-72958748
NM_029253	Atf7ip2	-1.415387384	0.030127674	Chr16: 10192712-10251478
NM_011338	Ccl9	1.376844592	0.030133774	Chr11: 83572919-83578636
NM_029627	Ly6k	2.486100989	0.030149467	Chr15: 74796874-74799986
NM_001101647	Prlh	-1.620779014	0.030159107	Chr1: 90953108-90954027
NM_001122977	Gm7168	2.333637138	0.03018474	Chr17: 13948373-13950678
NM_001290492	Rhbdd3	-1.748481072	0.030428012	Chr11: 5098926-5106093
NM_001285994	Enpp2	1.832247873	0.030435048	Chr15: 54838901-54952892
NM_001160363	Tmem74b	-1.586277445	0.030459701	Chr2: 151702008-151712157
NM_026228	Slc39a8	-1.415952871	0.030468825	Chr3: 135825279-135888572
NM_139134	Chodl	1.503195587	0.030494426	Chr16: 78930948-78951733
NM_001159647	Cntn1	-2.150880535	0.030496994	Chr15: 92051165-92341967
NM_177706	Gm4922	1.766201105	0.03054058	Chr10: 18779725-18786793
NM_001134829	Lpgat1	-2.177293446	0.030582547	Chr1: 191717834-191784255
NM_008906	Ctsa	-1.58954026	0.030612297	Chr2: 164832873-164841032
NM_010692	Lbx2	-1.020560929	0.030623499	Chr6: 83086367-83088243
NM_025351	Chchd6	-1.167367906	0.030671951	Chr6: 89383146-89595652
NM_001005748	Phactr1	-2.103777635	0.030818775	Chr13: 42680623-43138526
NM_008877	Plg	5.276338776	0.030828537	Chr17: 12378609-12419384
NM_027011	Krt5	5.119668044	0.030945222	Chr15: 101707070-101712898
NM_133915	Pxn	1.7617082	0.031035039	Chr5: 115506676-115555987
NM_198666	Gm9758	-2.480753459	0.031218044	Chr5: 14910122-14914899
NM_199150	BC049730	3.430727898	0.031443787	Chr7: 24709242-24714535
NM_001033426	Grxcr2	-1.841861729	0.03149474	Chr18: 41986201-41999049
NM_207216	Ugt3a1	2.559836646	0.031570291	Chr15: 9276888-9315032

NM_001285498	Tead2	-1.783459145	0.03166448	Chr7: 45215753-45233644
NM_173411	BC030500	-1.083872511	0.031771148	Chr8: 58911755-58914298
NM_146672	Olfir816	-1.540426362	0.031908295	Chr10: 129909163-129915597
NM_148940	Prss44	-1.540426362	0.031908295	Chr9: 110813994-110824523
NM_183322	Khdc1a	-1.913143942	0.031939256	Chr1: 21349641-21352200
NM_027548	Serpnb7	2.736508705	0.031976384	Chr1: 107399655-107452689
NM_008798	Pdcd1	1.715729781	0.032287722	Chr1: 94038305-94052553
NM_205822	Omt2b	-1.754419742	0.032369322	Chr9: 78327589-78329620
NM_013930	Aass	1.354495214	0.032371098	Chr6: 23072173-23132986
NM_008072	Gabrd	1.901878046	0.032446587	Chr4: 155384980-155398112
NM_001163353	Gm12171	-1.627716983	0.032451733	Chr11: 46544209-46557067
NM_001285413	Smagp	-1.627716983	0.032451733	Chr15: 100621339-100636940
NM_030135	8030411F24Rik	3.598858702	0.032570448	Chr2: 148782009-148785937
NM_211138	Pcyl1b	1.202719454	0.032638143	ChrX: 93654863-93749951
NM_134076	Abhd4	-1.734249176	0.032683292	Chr14: 54254188-54270637
NM_011134	Pon1	1.951597232	0.032713048	Chr6: 5168090-5193946
NM_001034885	Pnpla1	1.99231688	0.032792431	Chr17: 28858411-28890308
NM_008694	Ngp	3.096747895	0.032884197	Chr9: 110419747-110423012
NM_001243041	Adk	-1.746166052	0.033086512	Chr14: 21052574-21448569
NM_146687	Olfir1436	-1.917725139	0.033188529	Chr19: 12298183-12299130
NM_133996	Apon	-1.388298658	0.033270162	Chr10: 128254096-128255896
NM_001001999	Gp1bb	1.777050352	0.033275253	Chr16: 18620319-18622403
NM_027741	Mro	1.513354981	0.033315376	Chr18: 73859385-73881333
NM_007433	Alpl2	-1.848393062	0.033676538	Chr1: 87086694-87089928
NM_016894	Ramp1	1.34380361	0.033703787	Chr1: 91179822-91225196
NM_153131	Unc5a	1.594438746	0.033835375	Chr13: 54949411-55006018
NM_023655	Trim29	3.107385029	0.033900274	Chr9: 43310848-43336115
NM_001285797	Zfp27	-1.424159207	0.033964394	Chr7: 29893333-29906572
NM_013649	Ryk	-1.424159207	0.033964394	Chr9: 102834917-102908305
NM_001113346	Gatad2a	-1.680797681	0.034111058	Chr8: 69907076-69996384
NM_198659	Stpg2	1.557816062	0.034140945	Chr3: 139205694-139710299
NM_009692	Apoa1	4.697762284	0.034318861	Chr9: 46228580-46230466

NM_010725	Lmx1b	-1.029941731	0.03436589	Chr2: 33560965-33640511
NM_008192	Gucy2e	-1.462742039	0.034419212	Chr11: 69218117-69237036
NM_175432	Tmem132c	1.204683506	0.034554518	Chr5: 127241808-127565793
NM_146497	Olfir492	1.716812417	0.034589623	Chr7: 108322730-108323674
NM_008748	Dusp8	1.167534928	0.034635556	Chr7: 142079490-142095843
NM_001011858	Olfir504	-1.229164851	0.034646828	Chr7: 108564836-108565793
NM_001159960	Pde1c	-1.229164851	0.034646828	Chr6: 56069804-56569103
NM_001198808	Sfmbt2	-1.229164851	0.034646828	Chr2: 10370510-10595253
NM_133910	Tbc1d14	-1.229164851	0.034646828	Chr5: 36490604-36593276
NM_146730	Olfir1095	-1.229164851	0.034646828	Chr2: 86850770-86851696
NM_147077	Olfir643	-1.229164851	0.034646828	Chr7: 104053600-104061445
NM_001163571	Senp3	-1.627454231	0.034716878	Chr11: 69673115-69682084
NM_146532	Olfir1170	-1.04245385	0.034771466	Chr2: 88222098-88228334
NM_178931	Tnfrsf14	1.983675399	0.034956648	Chr4: 154921933-154928563
NM_001080944	Atp8b4	1.568994732	0.035015935	Chr2: 126320973-126500674
NM_023049	Asb2	2.227064234	0.03512593	Chr12: 103321142-103356001
NM_001110843	Cacna2d1	-1.214757387	0.035141411	Chr5: 15934691-16374511
NM_138721	Lsm10	-2.075101586	0.035149649	Chr4: 126096623-126098584
NM_175206	Fbxl22	1.065183944	0.035232422	Chr9: 66508459-66514593
NM_001199227	Osbpl5	-1.207927835	0.03527381	Chr7: 143688762-143756985
NM_198111	Akap6	1.743660271	0.035302979	Chr12: 52699383-53155599
NM_001044380	Hhip11	-1.066561308	0.035316799	Chr12: 108306270-108330869
NM_146931	Olfir796	-1.755653155	0.035370002	Chr10: 129605492-129612570
NM_001163194	Sfta2	2.386423518	0.035434925	Chr17: 35601549-35650571
NM_007608	Car5a	2.243077807	0.035446051	Chr8: 121916126-121944904
NM_001190870	Kcne3	1.322141153	0.035462968	Chr7: 100176502-100184869
NM_010391	H2-Q10	2.783301292	0.035490861	Chr17: 35470089-35474563
NM_001038699	Fn3k	1.733887617	0.035559281	Chr11: 121434913-121450491
NM_001167922	Gtf2e2	-1.007970306	0.035560132	Chr8: 33731833-33777173
NM_134237	Vmn1r220	-1.761639272	0.035584702	Chr13: 23178514-23187975
NM_001285873	Trim3	-2.303289359	0.035743177	Chr7: 105604463-105633571
NM_001290414	Fgf13	1.948412025	0.035810821	ChrX: 59062145-59568071

NM_010004	Cyp2c40	2.537530634	0.035853717	Chr19: 39767071-39812814
NM_001008792	Whrn	-1.231142773	0.035974626	Chr4: 63414910-63495991
NM_019392	Tyro3	-2.057382164	0.035983018	Chr2: 119797733-119818104
NM_013485	C9	2.586368159	0.036076915	Chr15: 6445327-6498751
NM_001276292	Wwp1	-1.231684355	0.036087367	Chr4: 19608303-19708993
NM_001136056	Cntfr	-1.340619599	0.03618052	Chr4: 41657498-41697089
NM_011995	Pclo	2.338338555	0.036204276	Chr5: 14514918-14863459
NM_023125	Kng1	4.719405662	0.036244929	Chr16: 23057865-23082068
NM_001281803	Def8-002	-1.064323679	0.036330728	Chr8: 123423527-123463270
NM_027303	Ankrd60	-1.345834441	0.036373209	Chr2: 173568666-173578365
NM_013646	Rora	2.055585271	0.036380186	Chr9: 68653786-69388246
NM_001177767	Rex2	1.182907093	0.036476	Chr4: 147021850-147060794
NM_007506	Atp5g1	1.829497125	0.036560321	Chr11: 96068852-96075670
NM_010791	Meox1	-1.181620028	0.036564546	Chr11: 101877510-101894374
NM_001101609	Gm9376	-1.428803359	0.036594384	Chr14: 118266960-118267688
NM_001104579	Vmn2r115	-1.428803359	0.036594384	Chr17: 23343977-23360128
NM_001002775	4932416K20Rik	-2.135074655	0.036674977	Chr8: 104794928-104799052
NM_001177561	Slc10a1	1.809980222	0.036736662	Chr12: 80953183-80968705
NM_008340	Igfals	1.757589932	0.036752992	Chr17: 24878770-24882008
NM_146887	Olfrl301	-1.925713405	0.036785904	Chr2: 111751006-111758852
NM_183288	Arhgap27	2.449384053	0.037047964	Chr11: 103331497-103363692
NM_001127349	Snx10	-1.331752279	0.037080013	Chr6: 51523901-51590679
NM_147218	Abca6	1.905798171	0.037085356	Chr11: 110176820-110251776
NM_001289731	Mcf2	-2.628099737	0.037094122	ChrX: 60055956-60179089
NM_013900	Mfi2	2.000888878	0.037203249	Chr16: 31878810-31899020
NM_013681	Syn2	2.078357422	0.037428022	Chr6: 115134902-115282006
NM_020020	Magea8	2.905412002	0.038046784	ChrX: 154985775-154995850
NM_007992	Fbln2	-2.176225881	0.038239312	Chr6: 91212455-91272540
NM_013479	Bcl2l10	-2.716503458	0.038251599	Chr9: 75347758-75351632
NM_146710	Olfrl398	-2.150592174	0.038331129	Chr11: 73979967-73990407
NM_172901	4933405O20Rik	-1.324575706	0.038403066	Chr7: 50599190-50600530
NM_001253740	Tpm3	-1.227275278	0.038416962	Chr3: 90072649-90100902

NM_001083616	Cacna1d	-1.678465392	0.038425094	Chr14: 30039939-30491455
NM_027844	Krtap5	-1.234228738	0.038440638	Chr7: 142174535-142176005
NM_146446	Olfir215	-1.234228738	0.038440638	Chr6: 116580084-116584195
NM_147027	Olfir31	-1.234228738	0.038440638	Chr14: 14322828-14331791
NM_030152	Nol3	1.528098092	0.038535046	Chr8: 105276140-105281939
NM_009778	C3	4.295509152	0.038544446	Chr17: 57203970-57228136
NM_174995	Mgst2	1.369018829	0.038584177	Chr3: 51660360-51682677
NM_145829	Nags	2.80536341	0.038867004	Chr11: 102145513-102149477
NM_008407	Itih3	4.525051226	0.039115519	Chr14: 30908572-30923760
NM_016744	Pde1a	-1.235578879	0.039279207	Chr2: 79834453-80129458
NM_001011750	Olfir294	-1.43337111	0.039588385	Chr7: 86615636-86616643
NM_028557	Mbd311	-1.43337111	0.039588385	Chr9: 18478359-18485298
NM_007740	Col9a1	2.68556019	0.039614767	Chr1: 24177610-24252684
NM_001199272	Gopc	-1.189382779	0.039656445	Chr10: 52335850-52382124
NM_011107	Pla2g1b	2.158443136	0.03966924	Chr5: 115466262-115474722
NM_008953	Bpifa2	-1.555610972	0.039688957	Chr2: 154008265-154016079
NM_207272	Tdpoz4	-2.305653766	0.039705625	Chr3: 93796398-93797510
NM_011460	Serpinb9d	2.022482758	0.039721842	Chr13: 33192959-33203129
NM_147066	Olfir1389	-2.263266407	0.039774457	Chr11: 49423067-49432968
NM_013891	Spdef	3.565283728	0.040045358	Chr17: 27714352-27728951
NM_021347	Gsdma	-1.089122189	0.040052937	Chr11: 98664351-98677708
NM_001081219	Myo1a	1.388000754	0.040106034	Chr10: 127705170-127720940
NM_146380	Olfir593	-1.898060926	0.040234473	Chr7: 103211862-103212845
NM_201258	Oog3	-1.898060926	0.040234473	Chr4: 144157557-144162663
NM_029594	Il31	2.352298576	0.040408938	Chr5: 123480157-123489489
NM_001025590	Kcnj6	-1.766405011	0.040477812	Chr16: 94749266-94997696
NM_009475	Prap1	1.816474182	0.04054123	Chr7: 140093395-140097200
NM_001271415	Capg	-1.94584537	0.040558653	Chr6: 72544391-72562983
NM_146013	Sec1414	2.769996956	0.040657262	Chr11: 4031462-4048024
NM_001110159	Nxt1	-1.139411891	0.0407715	Chr2: 148672601-148676027
NM_001159591	Csnk1g2	-1.492146863	0.040784102	Chr10: 80622838-80640749
NM_001253887	Apbb1	-1.971146587	0.040818635	Chr7: 105558483-105581653

NM_028608	Glipr1	1.630227153	0.04085105	Chr10: 111985448-112002631
NM_001011836	Olfr1129	-2.157438465	0.041008462	Chr2: 87573902-87577259
NM_031376	Pik3ap1	1.118477584	0.041070878	Chr19: 41274218-41385070
NM_008243	Mst1	1.165294337	0.041125266	Chr9: 108080436-108085003
NM_001276465	Vps13d	-1.342364562	0.041218523	Chr4: 144972622-145195005
NM_010445	Hmx1	2.75885408	0.0413239	Chr5: 35389108-35399730
NM_010826	Mrvi1	-1.663890182	0.04138611	Chr7: 110868266-110982461
NM_001177719	Madd	-1.736187514	0.041562664	Chr2: 91137360-91183837
NM_181817	Rxfp4	2.14967783	0.041563595	Chr3: 88651898-88653142
NM_001033981	Hbq1b	1.625092046	0.041613769	Chr11: 32286965-32287784
NM_030718	Abo	-1.353751633	0.041676043	Chr2: 26842503-26864979
NM_029415	Slc10a6	2.448508255	0.041878891	Chr5: 103605711-103629403
NM_010045	Ackr1	2.187597843	0.041901265	Chr1: 173331886-173333750
NM_205820	Tlr13	1.117674341	0.04193179	ChrX: 106143204-106160493
NM_001008542	Mxi1	-1.049587559	0.041955424	Chr19: 53310506-53375810
NM_009278	Ssb	-1.981353131	0.042010488	Chr2: 69861562-69871846
NM_198106	Slc9c1	-2.1675195	0.042091224	Chr16: 45535309-45607001
NM_025492	1700020L24Rik	1.29632291	0.042126805	Chr11: 83437677-83441233
NM_023537	Rab3b	1.652865659	0.042211238	Chr4: 108879063-108943324
NM_029597	1700018B08Rik	1.767837096	0.042216839	Chr8: 121530780-121544320
NM_001276287	Brat1	-1.571883681	0.042339209	Chr5: 140705011-140719379
NM_019956	Krt71	-1.816970234	0.042339682	Chr15: 101733949-101743109
NM_177388	Slc41a2	1.273791383	0.042505468	Chr10: 83230848-83337882
NM_178936	Tmem56	1.197940449	0.042506539	Chr3: 121201761-121283098
NM_011979	Vnn3	2.714405793	0.042537506	Chr10: 23851462-23869843
NM_023707	1810009J06Rik	-1.9034821	0.042589447	Chr6: 40964754-40968435
NM_001283061	Ewsr1	-1.594009462	0.04262966	Chr11: 5069689-5099266
NM_020287	Insm2	1.469166559	0.04264513	Chr12: 55599427-55602086
NM_001033780	I830077J02Rik	1.380591173	0.042718949	Chr3: 105924358-105932664
NM_001177371	Dbn1	-2.061042719	0.042825222	Chr13: 55473429-55488111
NM_015739	Gbx1	2.189554016	0.042854776	Chr5: 24502757-24527202
NM_175443	Etnk2	1.314304681	0.042927815	Chr1: 133363572-133380336

NM_133653	Mat1a	4.333171527	0.042989373	Chr14: 41105035-41124412
NM_001081140	Kcna10	-2.159516561	0.043068092	Chr3: 107183056-107195721
NM_008511	Lrmp	2.659982166	0.043074403	Chr6: 145115653-145174934
NM_001145759	4930571K23Rik	-1.052761707	0.043136498	Chr7: 125368861-125371013
NM_027111	Lyg1	-1.052761707	0.043136498	Chr1: 37946736-37957759
NM_053229	Vmn1r46	-1.052761707	0.043136498	Chr6: 89969313-89986721
NM_146286	Olfir981	-1.052761707	0.043136498	Chr9: 40021464-40030377
NM_146419	Olfir883	-1.052761707	0.043136498	Chr9: 38025808-38026737
NM_146426	Olfir469	-1.052761707	0.043136498	Chr7: 107820566-107825541
NM_146492	Olfir724	-1.052761707	0.043136498	Chr14: 49960023-49963274
NM_146797	Olfir1502	-1.052761707	0.043136498	Chr19: 13861795-13862745
NM_146932	Olfir802	-1.052761707	0.043136498	Chr10: 129677683-129688169
NM_146988	Olfir447	-1.052761707	0.043136498	Chr6: 42908878-42914273
NM_153110	Trim61	-1.052761707	0.043136498	Chr8: 65012987-65018523
NM_212436	Olfir301	-1.052761707	0.043136498	Chr7: 86403846-86414024
NM_001104615	Vmn2r4	-1.649926763	0.043154344	Chr3: 64388621-64415296
NM_182993	Slc17a7	-2.15613831	0.043164286	Chr7: 45163949-45176142
NM_001081687	Gm5150	2.238278134	0.043285503	Chr3: 15946870-16006437
NM_001033339	Mmp25	1.374619377	0.043297061	Chr17: 23629458-23645269
NM_001252208	Kcnj16	-1.227762463	0.043739914	Chr11: 110968033-111027968
NM_001164682	Mpp4	1.327967127	0.043883734	Chr1: 59120935-59163389
NM_017466	Ccrl2	1.430677765	0.044017149	Chr9: 111054486-111057519
NM_010824	Mpo	2.887995671	0.044421985	Chr11: 87793581-87804413
NM_001170884	Trim43b	1.359761607	0.044469247	Chr9: 89084624-89092835
NM_008329	Ifi204	2.711438951	0.044674294	Chr1: 173747293-173766943
NM_145379	Mrgprf	1.640830533	0.044687409	Chr7: 145300828-145309557
NM_001012667	Smim19	-1.254682294	0.04474437	Chr8: 22462614-22476882
NM_008036	Fosb	4.433829274	0.044749463	Chr7: 19302696-19310051
NM_001080776	Gm1123	1.745056549	0.044757567	Chr9: 99006790-99035715
NM_031164	F13b	2.90021949	0.04479188	Chr1: 139501702-139523752
NM_001081085	Sapcd2	-1.040995683	0.044895441	Chr2: 25372321-25378213
NM_001253910	Nat8f7	-1.675581384	0.04489546	Chr6: 85706727-85713205

NM_011246	Rasgrp1	1.253941179	0.044935125	Chr2: 117279993-117343001
NM_001199736	Topaz1	3.891870092	0.04515619	Chr9: 122747346-122802135
NM_001199593	Pkn1	-1.818173466	0.045163661	Chr8: 83666536-83699179
NM_010959	Oit3	1.581006778	0.045332281	Chr10: 59422958-59441778
NM_001045521	Prss38	-1.813817943	0.045675614	Chr11: 59372669-59375657
NM_001024918	Rfx4	-1.443176843	0.04571959	Chr10: 84756062-84906538
NM_146495	Olfir474	-1.443176843	0.04571959	Chr7: 107954643-107955575
NM_001277132	Gm867	2.303512905	0.045770531	Chr10: 75937723-75940672
NM_177256	Prdx6b	-1.748069794	0.045823611	Chr2: 80292472-80295356
NM_001165944	Olfir819	-1.561759981	0.04607973	Chr10: 129963011-129967266
NM_001244649	Gm8765	-1.561759981	0.04607973	Chr13: 50698312-50703435
NM_146417	Olfir877	-1.561759981	0.04607973	Chr9: 37854269-37857320
NM_153163	Cadps2	-1.561759981	0.04607973	Chr6: 23262773-23839421
NM_029671	1700034O15Rik	1.95780022	0.046086255	Chr6: 41684431-41685717
NM_011575	Tff3	3.457058199	0.046109822	Chr17: 31125306-31129646
NM_001163945	Rpl3l	-1.953247204	0.046144498	Chr17: 24727820-24736143
NM_001190474	Dapk3	2.126147786	0.046242011	Chr10: 81183005-81193197
NM_026639	Art4	1.977078917	0.046259557	Chr6: 136848451-136857733
NM_026434	Rbm18	-2.095271351	0.046277762	Chr2: 36116079-36136773
NM_001252685	Smc5	-2.136575995	0.046289583	Chr19: 23206451-23273897
NM_053259	Prss28	-1.444392301	0.046310323	Chr17: 25308646-25311876
NM_145578	Ube2m	-1.300268299	0.046315207	Chr7: 13035120-13038275
NM_001277926	Casp8	-2.029245216	0.046319579	Chr1: 58795374-58847503
NM_001145537	4930544D05Rik	2.247441349	0.046454282	Chr11: 70615848-70616890
NM_001290707	Pde10a	1.843444793	0.046493393	Chr17: 8525372-8986648
NM_001033299	Zfp217	-1.281477459	0.046634469	Chr2: 170108643-170148103
NM_001177648	Fnbp1	-1.918141277	0.046693621	Chr2: 31026206-31142008
NM_144533	Nmnat3	1.346512223	0.046821668	Chr9: 98287435-98420438
NM_007618	Serpina6	4.974957579	0.046924192	Chr12: 103646630-103657212
NM_010553	Il18rap	2.598938955	0.047031229	Chr1: 40515362-40551705
NM_175628	A2m	2.691861344	0.047192729	Chr6: 121635376-121679227
NM_011707	Vtn	4.140405945	0.047212171	Chr11: 78499091-78502324

NM_029412	Egfem1	-1.351164618	0.04734379	Chr3: 29082023-29691209
NM_001033266	Gm525	2.028413224	0.047345529	Chr11: 89073841-89093040
NM_028916	Efhc2	1.090758663	0.047464887	ChrX: 17132049-17319368
NM_023119	Eno1	-1.564509258	0.047477831	Chr4: 150236721-150248879
NM_013833	Rax	1.972703584	0.047482458	Chr18: 65934639-65939089
NM_177099	Lefty2	2.658709466	0.048092415	Chr1: 180893108-180899103
NM_001009930	Brsk2	2.439992045	0.048100614	Chr7: 141949751-142004247
NM_001135192	Asap2	-1.220821214	0.048102619	Chr12: 21111748-21270171
NM_177319	Zfyve27	-1.275116528	0.048127845	Chr19: 42163951-42194590
NM_001177706	Arfgap1	-2.003933642	0.048139071	Chr2: 180967225-180982526
NM_001101600	Gm7616	-1.829162766	0.048227604	Chr9: 59951285-59959044
NM_001039566	Defb30	-1.248241432	0.048332	Chr14: 63034087-63049960
NM_001195128	Gm5294	-1.248241432	0.048332	Chr5: 138820080-138821619
NM_001271579	Phc1	-1.248241432	0.048332	Chr6: 122317731-122340561
NM_011681	Scgb1a1	-1.248241432	0.048332	Chr19: 9083636-9087958
NM_024428	Dpy30	-1.248241432	0.048332	Chr17: 74299474-74323944
NM_025990	Bpifa5	-1.248241432	0.048332	Chr2: 154162607-154168450
NM_145707	Obox3	-1.248241432	0.048332	Chr7: 15479825-15639902
NM_206897	Olfir6	-1.248241432	0.048332	Chr7: 106953251-106963937
NM_008113	Arhgdig	1.140723346	0.048472816	Chr17: 26196226-26207786
NM_001163145	1810041L15Rik	1.021976922	0.048551541	Chr15: 84379203-84447097
NM_007913	Egr1	1.443114983	0.048557702	Chr18: 34859823-34864984
NM_001081983	Tmsb15b1	1.265492982	0.0486524	ChrX: 136974022-136976874
NM_001039047	Trim58	1.597342634	0.04867911	Chr11: 58640465-58652404
NM_001167949	Atp2b4	1.971274713	0.048847214	Chr1: 133699457-133801041
NM_183103	Prss46	-1.806329275	0.048927898	Chr9: 110844506-110856522
NM_030224	Fndc8	-1.479174796	0.048978638	Chr11: 82892124-82900801
NM_001205070	Josd2	-1.855560702	0.049004756	Chr7: 44467980-44471662
NM_198005	Dcaf17	-1.203504903	0.049038924	Chr2: 71055328-71099142
NM_001159396	Irf1	2.571687031	0.049161865	Chr11: 53770014-53778374
NM_172938	Scml4	1.794361524	0.049192754	Chr10: 42860370-42960780
NM_001013013	Dhrs7c	2.081399025	0.049193261	Chr11: 67798187-67816002

NM_013913	Angptl3	1.188961976	0.049394938	Chr4: 99030954-99046111
NM_001197322	Foxp1	-1.42031989	0.049428479	Chr6: 98925338-99522721
NM_173403	Slc10a4	2.0198568	0.049681806	Chr5: 73006883-73012955
