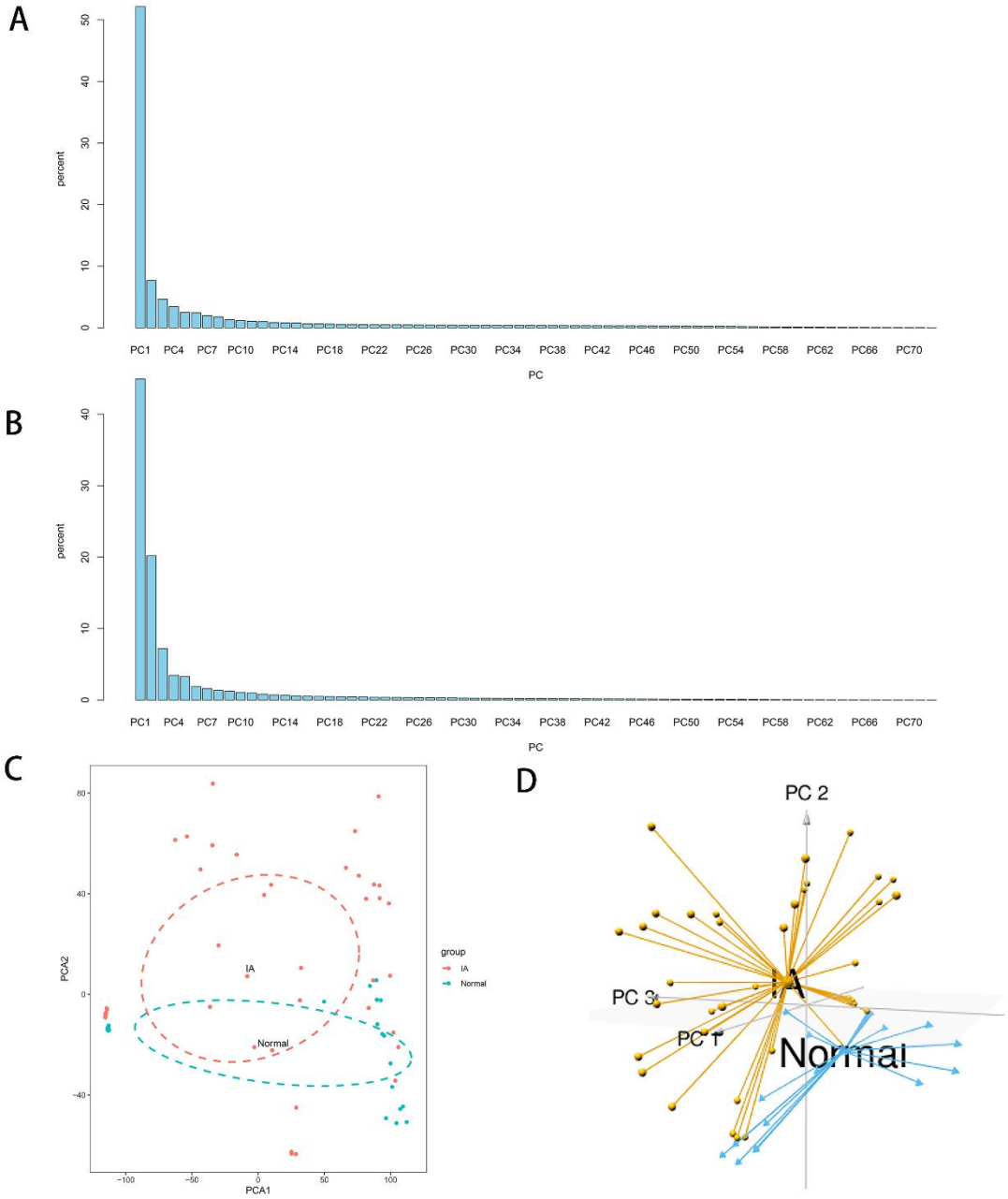

Figure S1. Principal Component Analysis (PCA) on the overall genes and the DEGs. **A.** Proportions of variance of PCs in PCA among all genes. **B.** Proportions of variance of PCs in PCA among DEGs. **C.** 2D-PCA plot of all genes. **D.** 3D-PCA graph of all genes.

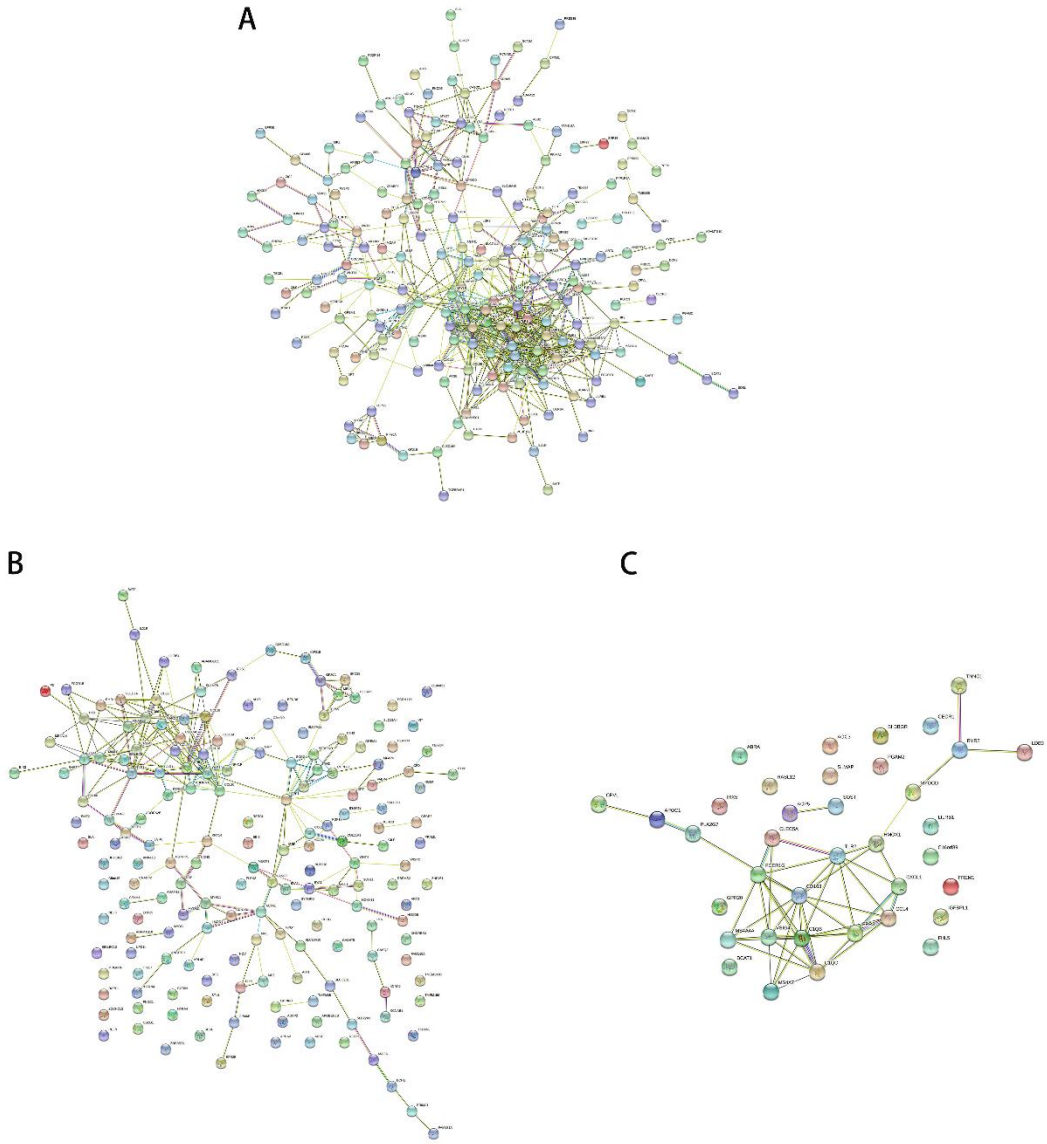

Figure S2. PPI networks. **A.** PPI network of all DEGs. **B.** PPI network of DEGs in blue modules. **C.** PPI network of DEGs in pink modules.

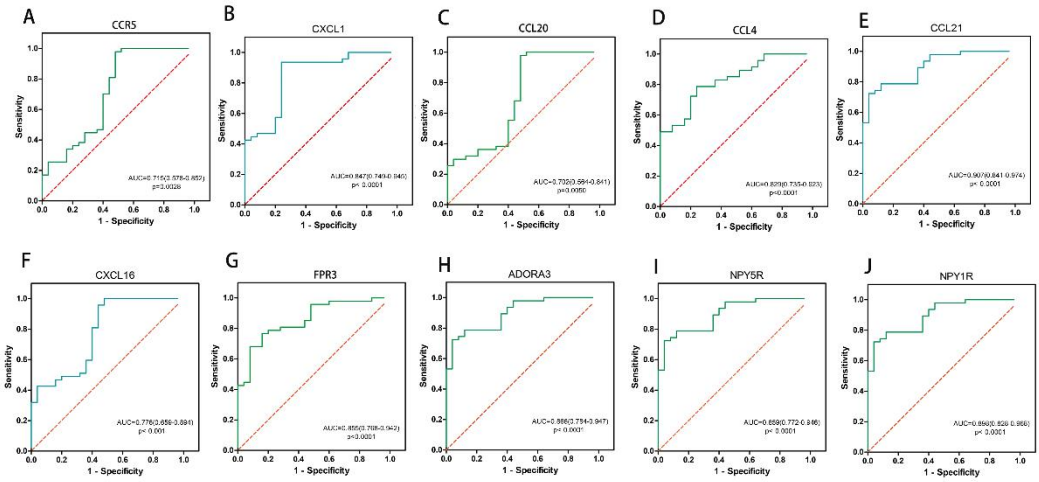

Figure S3. ROC analysis of the top 10 DEGs. **A-J.** ROC curves for CCR5, CXCLL1, CCL20, CCL4, CCL21, CXCL16, FPR3, ADORA3, NPY5R and NPY1R.

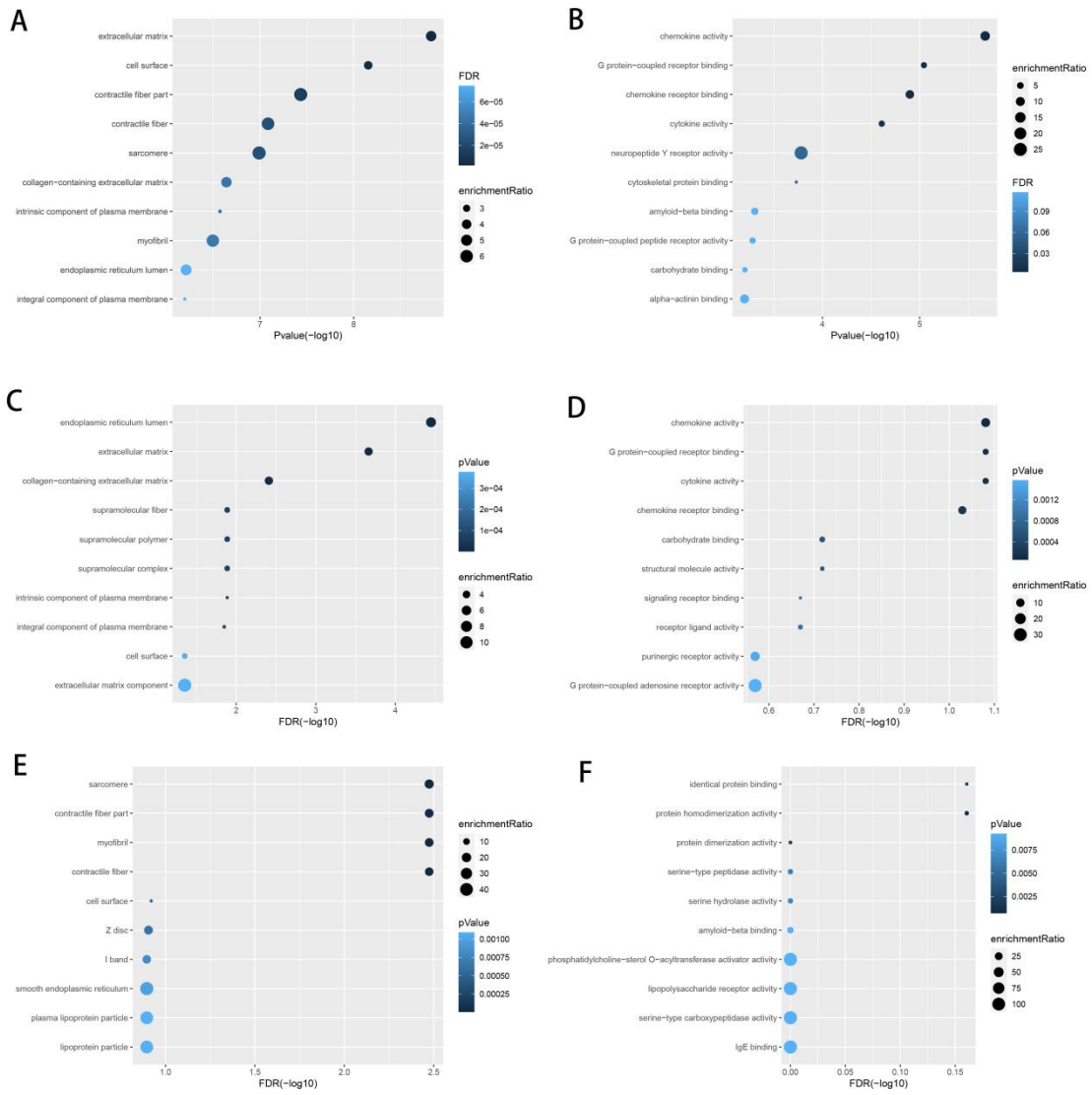

Figure S4. GO-CC and GO-MF for DEGs (A, B), blue module (C, D), and pink module (E, F).

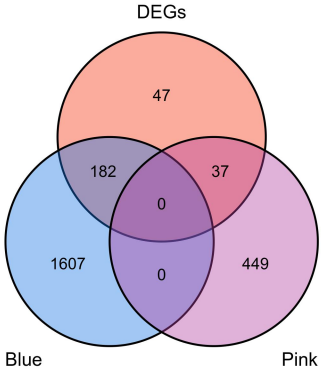

Figure S5. Venn Diagram depicting overlap between DEGs, bule and pink modules.

Table S1_DEG

ID	logFC	AveExpr	t	P.Value	adj.P.Val	B
COL11A1	4.26409658	7.526194048	11.29616707	1.22E-17	1.90E-13	29.4228369
KHDRBS3	-1.787035328	7.110381905	-10.81688025	8.87E-17	5.69E-13	27.53510101
TREM2	2.872499283	7.909038405	10.76683845	1.09E-16	5.69E-13	27.336495 6
CDH19	-2.782823722	6.700936095	-9.778555993	7.07E-15	2.76E-11	23.36221585
PPL	-2.898969595	7.0539445	-9.131665936	1.12E-13	2.51E-10	20.71665268
ORMDL1	2.094679695	9.066649262	8.429405564	2.31E-12	3.92E-09	17.82013377
ERP27	1.679157358	7.107387061	8.403479376	2.59E-12	3.92E-09	17.71293152
ARL4C	1.856324892	8.031518848	8.34932133	3.27E-12	4.25E-09	17.48896449
DOK5	1.765464811	8.110484397	8.292943652	4.17E-12	4.34E-09	17.25578576
RASL12	-2.135901967	9.474722694	-8.259486272	4.81E-12	4.70E-09	17.1173945
MYOT	-3.037271352	6.478360743	-8.166733325	7.18E-12	6.00E-09	16.7337159
SLMAP	-1.747178888	7.883105973	-8.166321007	7.19E-12	6.00E-09	16.7320103
TMEM158	1.921728841	7.524714549	8.150917603	7.69E-12	6.00E-09	16.66829281
MEOX1	-1.838159219	6.34936464	-8.107932302	9.25E-12	6.57E-09	16.49048421
P2RX1	-2.593690054	8.217532821	-8.096772609	9.71E-12	6.59E-09	16.44432354
ZIC2	3.157942232	7.160784628	8.017549628	1.37E-11	8.89E-09	16.11665489
ACTA1	-3.018251086	6.766913414	-7.891519114	2.35E-11	1.41E-08	15.59555262
ANGPTL7	-2.301365283	6.207349819	-7.876939803	2.50E-11	1.45E-08	15.53528943
RERG	-2.180530385	7.360862734	-7.866680144	2.62E-11	1.46E-08	15.49288414
IL21R	1.959167225	5.938990631	7.856203814	2.74E-11	1.48E-08	15.44958575
TSPAN8	-2.7263739	8.2531940	-7.8073416	3.38E-11	1.70E-08	15.247674

	48	32	64			77
ANGPTL1	-2.339686926	7.007013402	-7.536170142	1.09E-10	4.84E-08	14.12853609
SDSL	2.371846245	6.121958374	7.484051289	1.36E-10	5.73E-08	13.91379526
ITLN1	-3.133658455	7.393515882	-7.450065478	1.57E-10	6.46E-08	13.77384248
TMEM35	-1.72135371	6.534059134	-7.430199261	1.71E-10	6.68E-08	13.69206324
RYR2	-2.303059354	7.096441964	-7.430112702	1.71E-10	6.68E-08	13.69170697
HOXD8	-1.751998977	6.573179642	-7.423730128	1.76E-10	6.70E-08	13.66543789
NPY1R	-2.996631355	7.445480978	-7.388550175	2.04E-10	7.60E-08	13.52068867
AGTR1	-1.76136492	6.595083255	-7.375096025	2.17E-10	7.87E-08	13.46535068
LPHN3	-2.139960275	6.692023818	-7.324321983	2.69E-10	9.34E-08	13.25661539
WISP2	-2.820392031	6.910745413	-7.296108537	3.04E-10	1.01E-07	13.14070107
DPY19L2	-1.970699675	7.077136525	-7.20715509	4.44E-10	1.36E-07	12.77560473
CILP	-2.200316156	7.199570198	-7.10405021	6.90E-10	1.93E-07	12.35318847
ADIPOQ	-2.841489763	6.681880433	-7.103968223	6.91E-10	1.93E-07	12.35285293
MYOC	-2.233522176	6.916440977	-7.079749984	7.66E-10	2.10E-07	12.25376095
CORIN	1.587836865	5.593919195	7.067716948	8.06E-10	2.13E-07	12.20454545
FREM1	-2.020077248	6.060422148	-7.052862741	8.59E-10	2.20E-07	12.14380917
ART3	-1.861854398	5.821613334	-6.989085334	1.13E-09	2.84E-07	11.88326616
NEFH	1.606739472	5.837206527	6.953356393	1.31E-09	3.25E-07	11.73747738
COL10A1	2.470604359	7.64013741	6.914006708	1.55E-09	3.72E-07	11.57706307
XKR4	-2.320930681	5.940516016	-6.798349495	2.53E-09	5.65E-07	11.10652881
RERGL	-2.910046625	7.886088005	-6.787425591	2.65E-09	5.75E-07	11.06216425
SH3BGR	-1.6739583	8.5011005	-6.7749526	2.80E-09	5.98E-07	11.011525

	83	86	67			83
DAPL1	3.169044448	5.966807591	6.689585605	4.01E-09	8.21E-07	10.66545162
ADORA2B	2.066321378	6.537379318	6.687332327	4.05E-09	8.21E-07	10.6563292
SLC7A11	2.593722479	6.906945499	6.629646154	5.16E-09	1.02E-06	10.42300996
APOC1	2.501016251	8.352371136	6.608657174	5.64E-09	1.09E-06	10.3382265
CCL21	-2.246955671	6.185461704	-6.522913365	8.09E-09	1.47E-06	9.992502758
FHL5	-1.698439073	6.834259146	-6.490525476	9.27E-09	1.66E-06	9.862186939
AIM1	2.184634642	8.878164929	6.480520408	9.67E-09	1.72E-06	9.821961937
MPZ	-2.046481809	7.100057556	-6.457840604	1.06E-08	1.84E-06	9.730834336
GAPT	1.692623272	6.161129072	6.455792799	1.07E-08	1.84E-06	9.72261008
BIN2	1.554172025	7.444712021	6.39582612	1.38E-08	2.23E-06	9.482063679
PLEK2	1.819838123	6.647271223	6.353550988	1.64E-08	2.59E-06	9.312826897
MESDC2	1.669905676	8.511726701	6.333105006	1.79E-08	2.77E-06	9.231081798
SOST	-2.922334852	6.869457269	-6.3013181	2.04E-08	3.10E-06	9.104133135
ADORA3	2.05582812	6.930847294	6.289438506	2.15E-08	3.23E-06	9.056733059
CCM2	2.200727221	9.012657352	6.277552996	2.26E-08	3.35E-06	9.009333612
RBPMS2	-3.109528072	8.467867607	-6.268695707	2.34E-08	3.42E-06	8.974026596
C5orf46	2.818863325	6.820604666	6.2404215	2.63E-08	3.81E-06	8.861411406
TNC	-2.334726418	7.876031946	-6.213112801	2.95E-08	4.15E-06	8.752776396
PRIMA1	-2.591875492	7.211076107	-6.204206657	3.06E-08	4.27E-06	8.717376383
KRT14	2.261262038	7.883881141	6.19628213	3.16E-08	4.37E-06	8.685890226
MRGPRF	-1.848242012	8.850500061	-6.175427459	3.45E-08	4.70E-06	8.603084274
MYOM1	-1.9508732	7.6101213	-6.1723542	3.49E-08	4.70E-06	8.5908885

	98	79	69			87
SHOX2	-2.138053959	6.45964761	-6.168730197	3.55E-08	4.71E-06	8.576509022
MAOA	-1.613428678	7.032469269	-6.141326135	3.97E-08	5.13E-06	8.467854832
PDZRN4	-2.247057125	7.408816997	-6.12730905	4.21E-08	5.37E-06	8.41233334
GPRIN3	1.875430961	6.296660807	6.119535347	4.35E-08	5.46E-06	8.38155795
LGR6	-1.601773441	7.182876416	-6.09878944	4.74E-08	5.87E-06	8.299483678
SLITRK6	-1.738433581	5.361558137	-6.095938973	4.79E-08	5.89E-06	8.288213267
DPT	-1.657390552	6.802088609	-6.071810176	5.30E-08	6.46E-06	8.19287449
CRABP2	1.743841453	7.723633797	6.059751101	5.57E-08	6.74E-06	8.145269158
MS4A14	2.000422803	7.513744778	6.038076883	6.09E-08	7.26E-06	8.059779293
VIT	-1.558494812	6.990746614	-6.029287573	6.31E-08	7.47E-06	8.025138467
PCP4	-2.386222362	6.4885072	-6.024060787	6.45E-08	7.57E-06	8.004545849
SNX11	1.609919255	8.966133875	6.001826186	7.06E-08	8.17E-06	7.917007792
KCNAB1	-1.595978161	6.913835592	-5.993345495	7.32E-08	8.34E-06	7.883645947
SLC13A4	1.984080402	6.781968261	5.881184167	1.16E-07	1.23E-05	7.443851757
MIAT	2.144481013	6.861380455	5.880686196	1.16E-07	1.23E-05	7.441905251
NPY5R	-1.654843968	6.603065984	-5.87177859	1.20E-07	1.26E-05	7.40709589
RNASE2	1.612604214	6.611073852	5.833494422	1.41E-07	1.46E-05	7.257690525
CDH3	2.001106759	5.865711863	5.82353547	1.47E-07	1.51E-05	7.218879779
FOXF2	1.639720238	7.027377253	5.768307557	1.84E-07	1.78E-05	7.004068603
LAIR1	1.654601733	7.372711664	5.763265546	1.87E-07	1.81E-05	6.984493074
RGS6	-2.077208243	5.879782438	-5.744545706	2.02E-07	1.90E-05	6.911866427
CASQ2	-3.1623783	8.3856276	-5.7422789	2.04E-07	1.90E-05	6.9030778

	37	8	46			43
DSP	2.06846134	11.67204697	5.73063407	2.14E-07	1.94E-05	6.857948293
GPR20	-2.464636583	6.350455035	-5.713234308	2.29E-07	2.05E-05	6.7905768
KCNA5	-2.574464053	7.408592665	-5.660526171	2.84E-07	2.43E-05	6.586945114
CD300LF	1.624124257	7.304718784	5.658623586	2.86E-07	2.43E-05	6.579607608
CLEC5A	1.846049534	7.087013809	5.650505466	2.96E-07	2.50E-05	6.548309492
RGS1	1.643684808	7.436699361	5.640002625	3.08E-07	2.58E-05	6.507842121
WNT11	-1.950705984	5.86816628	-5.630948337	3.20E-07	2.64E-05	6.472978451
BCHE	-2.100788983	5.679833404	-5.620613529	3.34E-07	2.74E-05	6.433209647
BCAT1	1.545116618	7.44978706	5.609026539	3.50E-07	2.81E-05	6.388654922
SCG2	1.875569944	6.921991153	5.602906372	3.58E-07	2.83E-05	6.365135376
FPR3	1.624183462	6.718585762	5.583526342	3.87E-07	3.02E-05	6.290722758
IP6K3	-1.918081349	5.431763154	-5.559103338	4.27E-07	3.26E-05	6.197086688
EME2	3.632637453	8.33551716	5.558690248	4.28E-07	3.26E-05	6.195504282
IBSP	1.952208688	5.556497368	5.551062401	4.41E-07	3.33E-05	6.166292729
HEATR3	1.673134986	7.924167833	5.547765229	4.47E-07	3.34E-05	6.153670682
OXTR	1.835496098	7.292508451	5.516666848	5.06E-07	3.71E-05	6.034764619
FHOD3	-1.653981441	7.13276363	-5.513330459	5.13E-07	3.73E-05	6.022023243
C2orf40	-2.215671693	9.885360802	-5.509970119	5.20E-07	3.74E-05	6.009193446
DUXAP10	2.627240026	7.595186152	5.501406434	5.38E-07	3.82E-05	5.976511121
SLCO2B1	1.694119418	7.174434239	5.499479172	5.42E-07	3.83E-05	5.969158696
PPP1R9A	-1.742251935	5.877958914	-5.462883741	6.28E-07	4.34E-05	5.829742072
HMOX1	2.1181118	9.1972111	5.4370967	6.96E-07	4.78E-05	5.7317251

	38	79	37			36
ERP29	-1.741814551	9.84890738	-5.434718343	7.02E-07	4.79E-05	5.722694202
EMR1	2.613413289	6.788418316	5.430447495	7.14E-07	4.85E-05	5.70648149
SCN3A	-1.73088108	6.645467588	-5.4020368	8.00E-07	5.27E-05	5.598762343
PC	1.538354612	6.717755633	5.384745189	8.57E-07	5.53E-05	5.533314197
ITIH2	2.467360808	7.417908332	5.347878406	9.91E-07	6.22E-05	5.3940641
LDB3	-1.826065795	8.093466361	-5.342476002	1.01E-06	6.30E-05	5.373692017
CXCL14	-2.109912076	7.218179717	-5.313181404	1.14E-06	6.78E-05	5.263374675
TAC1	-2.251114185	6.008858207	-5.29898217	1.20E-06	7.01E-05	5.209995495
EYA1	1.780243765	6.043766199	5.293010175	1.23E-06	7.12E-05	5.187563095
SPP1	2.083174293	8.062165086	5.289607998	1.25E-06	7.19E-05	5.174788431
LILRB1	1.753065477	6.128483315	5.284391779	1.27E-06	7.31E-05	5.155209116
SALL1	2.456232239	5.607872578	5.283235011	1.28E-06	7.31E-05	5.15086825
CECR1	1.642740811	8.425699965	5.277410386	1.31E-06	7.44E-05	5.12901706
GPIHBP1	-1.503622895	6.125259188	-5.268159352	1.36E-06	7.60E-05	5.094332868
CPVL	1.534319145	8.706138572	5.262596073	1.39E-06	7.71E-05	5.073487487
CHL1	-1.593809664	5.486524619	-5.25050265	1.46E-06	8.03E-05	5.028206679
SIGLEC10	1.703326086	7.104911038	5.242231072	1.50E-06	8.19E-05	4.997261771
SVIP	-1.504037636	8.102015293	-5.224872719	1.61E-06	8.64E-05	4.932391164
UFD1L	-1.523057966	9.793652615	-5.210342282	1.70E-06	9.11E-05	4.878161144
SLAMF8	1.757025038	7.516316158	5.172965011	1.97E-06	0.00010303	4.738968828
MAL	-1.876602342	6.90186121	-5.157900613	2.09E-06	0.000107829	4.682995128
FGF13	-1.7722686	7.8851623	-5.1284687	2.35E-06	0.0001182	4.5738485

	8	88	39		06	21
ITIH3	-2.234690861	7.705832373	-5.099523228	2.63E-06	0.000128962	4.46678127
RXFP1	2.301889836	5.837753622	5.087209524	2.75E-06	0.000134014	4.421317603
TLR2	1.59360281	8.60520853	5.079635928	2.84E-06	0.000135842	4.393380005
SCG5	1.524982229	7.001836707	5.078942988	2.84E-06	0.000135842	4.390824833
ABRA	-1.839583057	5.426419222	-5.041404714	3.29E-06	0.000152309	4.252645615
CPXM1	2.44779165	7.053169979	5.041192853	3.29E-06	0.000152309	4.251867099
CCL26	1.924483863	7.16391681	5.040847365	3.30E-06	0.000152309	4.250597586
MYOCD	-1.795538228	8.933078217	-5.031492895	3.42E-06	0.000155376	4.216239483
IRX5	-1.518092117	6.945228615	-4.972873351	4.28E-06	0.000187405	4.00161957
RFPL1S	1.724516254	5.369394553	4.942579673	4.81E-06	0.000205341	3.891176555
RELN	-1.745617807	7.330560278	-4.892556573	5.83E-06	0.000238012	3.709519335
ADAP2	1.785015924	9.02660733	4.867300343	6.42E-06	0.000256975	3.618145334
PLVAP	-1.621364731	7.402142655	-4.867190032	6.42E-06	0.000256975	3.61774675
RGS4	1.702392915	8.011098116	4.842944592	7.04E-06	0.000276218	3.530250357
CD80	1.641204566	5.933212954	4.805332518	8.12E-06	0.000305095	3.394947958
PGAM2	-1.897427271	6.885880335	-4.802432992	8.21E-06	0.000306489	3.384539425
CCL4	1.988603421	8.396457569	4.801972776	8.22E-06	0.000306489	3.382887663
SLC22A3	-1.625702712	7.672789108	-4.793626205	8.49E-06	0.000314511	3.352944795
CXCL16	1.731140266	9.030267587	4.762750819	9.54E-06	0.000345568	3.242410456
GRP	1.95752624	5.606322359	4.762130049	9.56E-06	0.000345568	3.240191815
WRNIP1	1.660376587	7.129815284	4.750863865	9.97E-06	0.000358075	3.199951965
CAV3	-1.9105508	7.1023010	-4.7484941	1.01E-05	0.0003604	3.1914940

	13	11	21		57	67
LMOD1	-1.764315706	8.331049161	-4.706367098	1.18E-05	0.000406557	3.041500336
ZCCHC12	1.570392331	6.127515214	4.666534267	1.37E-05	0.000463653	2.900313998
TTLL7	-1.646929233	7.501761948	-4.642976822	1.49E-05	0.000499419	2.817111729
REEP1	-1.677530609	7.718094666	-4.642588376	1.50E-05	0.000499419	2.815741646
ST14	1.881696023	6.095547054	4.637149749	1.53E-05	0.000507477	2.796565464
IGFBPL1	-1.846518836	6.373622735	-4.625421634	1.60E-05	0.000526769	2.755253594
PPP1R1A	-2.085859981	6.988997855	-4.623529875	1.61E-05	0.000529371	2.748595144
FCER1G	1.802865642	7.987527203	4.614997551	1.66E-05	0.000539609	2.718581819
CXCL1	1.615563094	7.34136268	4.613687049	1.67E-05	0.000541117	2.713974611
ADAMTS10	3.509258673	8.213899339	4.57111457	1.95E-05	0.000615756	2.564688229
DLGAP5	1.941059257	4.958053615	4.569642722	1.96E-05	0.000616628	2.559540312
SYNGR3	1.573175148	5.596212173	4.539312234	2.19E-05	0.000675109	2.453656901
TUSC5	-1.731651397	6.287788646	-4.533314544	2.24E-05	0.000685855	2.432764469
MSR1	1.571305743	6.679768787	4.528057698	2.29E-05	0.000696541	2.414465106
C16orf89	1.716071417	7.4221741	4.512328812	2.42E-05	0.000732351	2.359781459
CLEC7A	1.894150817	6.862339867	4.49873348	2.55E-05	0.000766908	2.312599665
PLA2G7	1.770559838	6.544015536	4.482459176	2.71E-05	0.000800722	2.256223996
WNT4	2.063260086	5.759259938	4.434775106	3.22E-05	0.000914556	2.091696824
OLR1	2.483512584	8.331466781	4.406345249	3.57E-05	0.000983036	1.994073662
CCR5	1.588407334	8.308076465	4.384821311	3.86E-05	0.001047258	1.920400662
FABP4	-1.893995557	7.430345856	-4.367841174	4.11E-05	0.001094706	1.862425351
CHRDL1	-2.1918508	8.1375767	-4.3606959	4.21E-05	0.0011142	1.8380678

	63	67	49		35	38
ADAM12	1.79142522	6.814181684	4.353059627	4.33E-05	0.00114119	1.812061485
NUP210	1.54333793	6.576357912	4.324873832	4.80E-05	0.00124050 8	1.716298851
MS4A4A	1.55626752 8	7.766401225	4.300039852	5.24E-05	0.00133629 8	1.632222743
PRSS35	1.58165839 2	8.452031605	4.293704933	5.37E-05	0.00136259 1	1.610820804
BATF	1.61546835 6	7.728978109	4.250957658	6.25E-05	0.00152347 4	1.466886615
APOBEC3B	1.55502938	6.182104663	4.229141853	6.76E-05	0.00161892 8	1.39375809
CCL18	2.24891656 4	7.235683836	4.205890875	7.34E-05	0.00171652 2	1.316064867
EYA2	1.59939069 7	7.881451312	4.18620011	7.87E-05	0.0018293	1.250468258
LY86	2.05621353 4	9.902066869	4.182181469	7.98E-05	0.00184476 5	1.237103484
PRAM1	1.56976435 3	6.242293063	4.174593264	8.20E-05	0.00188938 1	1.211888468
MS4A7	1.58936564 9	7.658822667	4.171597626	8.29E-05	0.00190388 6	1.201941783
ACP5	1.72367404	6.706133802	4.125740525	9.74E-05	0.00216165 5	1.050218025
ADAMDEC1	1.71842974 3	6.581508968	4.101716453	0.00010604	0.00230596 5	0.971139365
CUZD1	3.16374822	7.975093015	4.099560827	0.00010688	0.00232021 6	0.964057641
MYH11	-1.6182281 29	8.476016252	-4.085213865	0.00011230 8	0.00241950 8	0.916982 86
SERPIND1	1.75875386 4	5.12145929	4.083500392	0.00011298 3	0.00243069 4	0.911367456
TBCEL	1.51502329	8.026575315	4.074700312	0.00011651 1	0.00248944 6	0.882550669
C18orf21	2.03554565 6	7.390082626	4.067319344	0.00011955 1	0.00253705 7	0.858410519
CD86	1.50520081 8	8.177491862	4.041743298	0.00013068 9	0.00271440 1	0.774971568
CFD	-2.3954703 36	8.589881043	-3.989107421	0.00015683 2	0.00311649 4	0.604288249
TGFBRAP1	1.89737452 7	8.779970253	3.987440975	0.00015773 7	0.00311860 2	0.598907394
VSIG4	1.6095504	8.6665015	3.9650389	0.0001703	0.0033086	0.5267104

	11	31	12	97	91	9
MFAP4	-1.588222112	8.730271437	-3.948406182	0.000180421	0.003449206	0.473273787
GPM6B	-1.752664449	8.021811779	-3.9017641	0.000211641	0.003907362	0.324190693
APBA2	1.511676026	7.421505422	3.899974777	0.000212937	0.003926636	0.318494093
HPSE2	-1.639234369	5.198999497	-3.893423405	0.000217745	0.003996422	0.29765111
EFR3B	1.698690154	6.880081234	3.871896956	0.000234286	0.004206195	0.229324852
CD180	2.315268515	8.094037092	3.861384124	0.000242795	0.004321448	0.19604572
C1QB	1.889120044	8.096471806	3.848942528	0.000253247	0.004489752	0.156736972
TPO	-1.710539163	4.911613618	-3.841040893	0.000260108	0.004575031	0.131814991
DDAH1	1.705058686	8.03438875	3.827744346	0.000272056	0.004705697	0.089952858
IGHM	1.774471575	6.579731049	3.823295029	0.00027617	0.004761039	0.075966091
ANXA13	1.545306367	6.021887997	3.782545471	0.00031672	0.005302096	-0.051635075
PSTPIP1	1.92350914	7.326130963	3.775701415	0.000324066	0.005401911	-0.072977628
MELK	1.525813743	6.989222059	3.75543604	0.000346784	0.005612184	-0.136022824
PLP1	-1.579130836	7.468878541	-3.755261882	0.000346986	0.005612184	-0.13656365
TNNC1	-2.236789592	6.844482895	-3.746155947	0.000357688	0.005718251	-0.164817625
ZNF461	2.265452177	6.518461713	3.736127761	0.000369838	0.005852576	-0.19588019
KLRC3	1.591978779	4.721026564	3.727753028	0.000380285	0.005958475	-0.221778465
HTRA4	3.242039709	8.673429481	3.700541313	0.00041621	0.006335069	-0.305659361
GALNT5	1.843756464	7.194861198	3.684435279	0.000438973	0.006567362	-0.355111528
ALX3	1.798129825	6.862341462	3.660499075	0.000475007	0.007005186	-0.428335594
CECR6	3.053987528	6.631236065	3.643137915	0.000502885	0.007347585	-0.48124259
HP	-1.7120432	7.0741677	-3.6411507	0.0005061	0.0073749	-0.4872874

	04	5	19	74	38	99
LILRB4	2.03819607	6.783729924	3.623932606	0.000535538	0.007702176	-0.539569327
C1QC	1.513162942	8.136409525	3.603173508	0.000573095	0.008122665	-0.602377075
SLA	1.585176331	9.62217906	3.566897143	0.000644808	0.008915679	-0.711535365
ARSE	1.520555129	7.179936649	3.552925318	0.000674637	0.009235018	-0.753373357
CEP55	1.747363405	6.394026812	3.55117712	0.000678446	0.009279221	-0.758600219
CNN1	-2.067023108	9.100980145	-3.507356464	0.000781285	0.010315207	-0.889030249
MARCO	2.728225717	8.132575402	3.504994706	0.000787226	0.010367361	-0.896027666
SLC16A10	1.803429119	6.607614851	3.486774438	0.000834524	0.010868872	-0.949899147
KIF20A	1.616846379	5.625846148	3.473038792	0.000871945	0.0112553	-0.990380055
HK3	1.713809982	6.161601321	3.454071861	0.000926236	0.011772172	-1.046092284
PCDH8	-2.245389254	6.120789376	-3.440652011	0.000966563	0.012155187	-1.085379959
CLEC16A	1.725588487	6.832860412	3.42988308	0.001000118	0.012466756	-1.116828066
GREM1	1.754691786	5.816574754	3.420976541	0.001028699	0.012711432	-1.142784326
FCGR1B	2.512101783	9.855364772	3.33151527	0.001361874	0.015606094	-1.400802678
CD163	1.577077056	7.678313806	3.295590701	0.001522353	0.0170571 2	-1.503015554
TMEM132C	2.173525065	8.313637852	3.290544181	0.001546271	0.017287908	-1.517308971
PLN	-1.961142782	8.708656438	-3.218074769	0.001931114	0.020462733	-1.720783091
TEX264	1.603177008	8.857152034	3.20767218	0.001993217	0.021022007	-1.749714818
CCL20	2.401464917	6.542396005	3.191549809	0.002093175	0.021736946	-1.794416364
TBL1X	-1.671383114	8.426845358	-3.180821174	0.002162272	0.022218765	-1.824069704
SIGLEC9	1.834265746	5.844284684	3.177015888	0.002187288	0.022416832	-1.834569338
EBI3	1.7548763	7.0255511	3.1564976	0.0023269	0.0235236	-1.8910212

	42	83	11	08	06	35
GPR83	1.665820764	6.561865202	3.14053001	0.002441279	0.024458205	-1.934762387
NOV	-1.964531422	8.819467684	-3.130036878	0.002519275	0.025078752	-1.963415794
BEND6	1.559127631	6.467967058	3.127963604	0.002534959	0.025168057	-1.969068671
SIT1	1.614922788	6.553092987	3.109724327	0.002676912	0.026180772	-2.018676643
MAR	1.68273062	6.1974426	3.101577465	0.002742684	0.026740316	-2.040763722
MCAM	-1.610092627	10.57607338	-3.096920651	0.002780954	0.027029072	-2.0533691
ZNF280B	1.730907596	6.444095937	3.084488947	0.002885569	0.027816108	-2.086949466
OR52K3P	1.872822666	6.314414269	3.08433787	0.002886863	0.027816108	-2.087356915
PCDH11X	2.336717367	6.641136404	3.077717116	0.002944087	0.028297658	-2.105198128
IGLV6-57	2.325743101	5.825339784	3.0752039	0.002966084	0.0284216	-2.111962932
ASB2	-2.290459038	7.817571287	-3.065020279	0.003056795	0.029140059	-2.139330887
HOXA11	1.534588981	4.98544505	3.023064587	0.003458427	0.031981748	-2.251350025
FNDC1	1.908483009	9.604034754	3.014377102	0.003547494	0.032516615	-2.274396572
FAM110A	1.624050357	7.623040868	2.980565691	0.003914805	0.034920237	-2.36360452
DIXDC1	1.986387157	9.798019118	2.934461504	0.004472625	0.038961475	-2.483983991
CLEC4C	1.536028903	5.259040756	2.9130952	0.004755313	0.040787063	-2.539274296
SPC25	1.642847435	5.508047305	2.899279891	0.00494679	0.042105677	-2.574855692
SOX11	1.978615992	6.393921924	2.894445395	0.005015459	0.042389858	-2.587275522
FAM181A	2.188366839	7.707269004	2.884958751	0.005152771	0.043142631	-2.611599245
KIF21B	1.822433835	7.18912649	2.869585599	0.005382665	0.044624125	-2.650882067
SULT1E1	2.172449508	6.577434536	2.864067387	0.005467466	0.045111651	-2.664942198
TLR1	1.5591834	8.6410815	2.8536431	0.0056310	0.0460959	-2.6914442

	82	22	01	29	32	6
AOC3	-1.6385845 14	11.352478 76	-2.8423197 07	0.0058137 96	0.0471170 34	-2.7201452 74
B3GAT2	1.6997371 67	5.8289987 78	2.8297315 15	0.0060233 74	0.0484693 87	-2.7519456 42
LAMC3	1.7924775 71	7.4738565 46	2.8187309 89	0.0062121 85	0.0495800 29	-2.7796431 83

Table S2_DEG_GO_KEGG

Enrichment analysis of GO among all DEGs

ID	description	size	overlap	enrichmentRatio	pValue	FDR	geneID
GO:00069954	inflammatory response	717	36	3.669676283	1.24E-11	1.12E-07	P2RX1;AGTR1;ADIPOQ;ADORA2B;CCL21;ADORA3;NPY5R;SCG2;FPR3;HMOX1;TAC1;SPP1;SIGLEC10;SLAMF8;TLR2;CCL26;FCER1G;CXCL1;CLEC7A;PLA2G7;OLR1;CCR5;FABP4;CCL18;LY86;ACP5;CD180;C1QB;PSTPIP1;PLP1;HP;C1QC;CD163;CCL20;TLR1;AOC3
GO:00069652	defense response	1518	51	2.455516261	1.15E-09	5.21E-06	TREM2;P2RX1;AGTR1;ADIPOQ;ADORA2B;CCL21;ADORA3;NPY5R;RNASE2;CD300LF;CLEC5A;SCG2;FPR3;HMOX1;TAC1;SPP1;LILRB1;SIGLEC10;SLAMF8;TLR2;CCL26;CXCL16;WRNIP1;FCER1G;CXCL1;CLEC7A;PLA2G7;OLR1;CCR5;FABP4;BATF;APOBEC3B;CCL18;LY86;ACP5;CFD;VSIG4;CD180;C1QB;PSTPIP1;PLP1;KLRC3;HP;C1QC;MARCO;FCGR1B;CD163;CCL20;CLEC4C;TLR1;AOC3
GO:00069955	immune response	1919	55	2.094749641	6.15E-08	1.86E-04	TREM2;P2RX1;ITLN1;ADORA2B;CCL21;GAPT;BIN2;NPY5R;RNASE2;LAIR1;DSP;CD300LF;CLEC5A;RGS1;FPR3;HMOX1;CXCL14;LILRB1;SIGLEC10;SVIP;SLAMF8;TLR2;CCL26;CD80;CXCL16;WRNIP1;FCER1G;CXCL1;CLEC7A;OLR1;CCR5;BATF;APOBEC3B;CCL18;LY86;PRAM1;ADAMDEC1;CD86;CFD;VSIG4;CD180;C1QB;PSTPIP1;HP;LILRB4;C1QC;MARCO;HK3;FCGR1B;CCL20;SIGLEC9;EBI3;SIT1;CLEC4C;TLR1
GO:00030030	muscle system process	423	22	3.801252 54	8.85E-	2.01E-04	MYOT;SLMAP;P2RX1;ACTA1;RYR2;MYOC;ADORA2B;MYOM1;CASQ2;DSP;KCNA5;OXTR;HMOX1;MYOCD;RGS4;PGAM2;CAV3;LMOD1;MYH11;TNNC1;CNN1;PLN

12					08		
GO:00069 36	muscle contraction	33 9	19	4.096361849	2.23E-07	3.70E-04	MYOT;SLMAP;P2RX1;ACTA1;RYR2;ADORA2B;MYOM1;CASQ2;DSP;KCNA5;OXTR;MYOCD;PGAM2;CAV3;LMOD1;MYH11;TNNC1;CNN1;PLN
GO:00310 32	actomyosin structure organization	18 4	14	5.561022121	2.44E-07	3.70E-04	ACTA1;MYOC;MYOM1;CASQ2;WNT11;FHOD3;PPP1R9A;LDB3;TAC1;CAV3;LMOD1;WNT4;MYH11;CNN1
GO:00147 06	striated muscle tissue development	35 7	19	3.889822596	4.92E-07	6.39E-04	COL11A1;ACTA1;RYR2;MYOM1;SHOX2;KCNAB1;DSP;FHOD3;EYA1;MYOCD;RGS4;CAV3;EYA2;MYH11;TNNC1;GREM1;PLN;ASB2;SOX11
GO:00453 21	leukocyte activation	11 84	38	2.345720721	7.02E-07	7.98E-04	P2RX1;IL21R;ADORA2B;CCL21;GAPT;BIN2;RNASE2;LAIR1;DSP;CD300LF;CLEC5A;HMOX1;TAC1;LILRB1;SVIP;SLAMF8;TLR2;CD80;FCER1G;CXCL1;CLEC7A;WNT4;OLR1;BATF;PRAM1;CD86;CFD;VSIG4;CD180;HP;LILRB4;HK3;SIGLEC9;EBI3;SIT1;CLEC4C;SOX11;TLR1
GO:00605 37	muscle tissue development	37 1	19	3.743036837	8.80E-07	8.88E-04	COL11A1;ACTA1;RYR2;MYOM1;SHOX2;KCNAB1;DSP;FHOD3;EYA1;MYOCD;RGS4;CAV3;EYA2;MYH11;TNNC1;GREM1;PLN;ASB2;SOX11
GO:00069 37	regulation of muscle contraction	15 1	12	5.808295573	1.13E-06	0.001029978	P2RX1;RYR2;ADORA2B;CASQ2;DSP;OXTR;FGF13;MYOCD;CAV3;TNNC1;CNN1;PLN

ID	description	size	overlap	enrichmentRatio	pValue	FDR	geneID
hsa04062	Chemokine signaling pathway	189	9	3.76E+00	6.05E-04	1.51E-01	CCL21;CXCL14;CCL26;CCL4;CXCL16;CXCL1;CCR5;CCL18;CCL20
hsa05323	Rheumatoid arthritis	90	6	5.27E+00	9.24E-04	1.51E-01	TLR2;CD80;CXCL1;ACP5;CD86;CCL20
hsa00260	Glycine, serine and threonine metabolism	40	4	7.90E+00	1.55E-03	1.56E-01	SDSL;MAOA;PGAM2;AOC3
hsa04620	Toll-like receptor signaling pathway	104	6	4.56E+00	1.96E-03	1.56E-01	SPP1;TLR2;CD80;CCL4;CD86;TLR1
hsa04080	Neuroactive ligand-receptor	277	10	2.85E+00	2.50E-	1.56E-01	P2RX1;NPY1R;AGTR1;ADORA2B;ADORA3;NPY5R;FPR3;OXTR;RXFP1;GPR83

	interaction				03		
hsa04610	Complement and coagulation cascades	79	5	5.00E+00	3.14E-03	1.56E-01	SERPIND1;CFD;VSIG4;C1QB;C1QC
hsa04512	ECM-receptor interaction	82	5	4.82E+00	3.69E-03	1.56E-01	TNC;IBSP;SPP1;RELN;LAMC3
hsa04060	Cytokine-cytokine receptor interaction	294	10	2.69E+00	3.84E-03	1.56E-01	IL21R;CCL21;CXCL14;CCL26;CCL4;CXCL16;CXCL1;CCR5;CCL18;CCL20
hsa05150	Staphylococcus aureus infection	56	4	5.65E+00	5.34E-03	1.93E-01	FPR3;CFD;C1QB;C1QC
hsa04020	Calcium signaling pathway	183	7	3.02E+00	8.27E-03	2.69E-01	P2RX1;RYR2;AGTR1;ADORA2B;OXTR;TNNC1;PLN

Table S3_PCA_ALL_DEG

Summary of 2D-PCA among all genes

	Standard deviation	Proportion of Variance	Cumulative Proportion
PC1	90.20086722	0.52105	0.52105
PC2	34.59916963	0.07666	0.59771
PC3	26.95180159	0.04652	0.64423
PC4	23.17615722	0.0344	0.67863
PC5	19.72098951	0.02491	0.70354
PC6	19.49477091	0.02434	0.72788
PC7	17.54822113	0.01972	0.7476
PC8	16.58916363	0.01762	0.76522
PC9	14.38810075	0.01326	0.77848
PC10	13.46883201	0.01162	0.7901
PC11	12.84054621	0.01056	0.80066
PC12	12.49660263	0.01	0.81066
PC13	11.45766504	0.00841	0.81906
PC14	11.15580266	0.00797	0.82703
PC15	10.91692103	0.00763	0.83467
PC16	10.09219507	0.00652	0.84119
PC17	10.0010128	0.00641	0.84759
PC18	9.559103485	0.00585	0.85345
PC19	9.251635341	0.00548	0.85893
PC20	9.170918501	0.00539	0.86431

Summary of 2D-PCA among DEGs

	Standard deviation	Proportion of Variance	Cumulative Proportion
PC1	10.92965591	0.44909	0.44909
PC2	7.328802611	0.20192	0.65101
PC3	4.372269231	0.07187	0.72288
PC4	3.031194647	0.03454	0.75742
PC5	2.947527168	0.03266	0.79008
PC6	2.230224451	0.0187	0.80878
PC7	2.070448026	0.01612	0.8249
PC8	1.890886075	0.01344	0.83834
PC9	1.813699811	0.01237	0.8507
PC10	1.678483489	0.01059	0.86129
PC11	1.602157575	0.00965	0.87094
PC12	1.47576011	0.00819	0.87913
PC13	1.370994019	0.00707	0.8862
PC14	1.310208123	0.00645	0.89265
PC15	1.234998983	0.00573	0.89839
PC16	1.171494374	0.00516	0.90355
PC17	1.149532506	0.00497	0.90851
PC18	1.118257201	0.0047	0.91321
PC19	1.104306888	0.00458	0.9178
PC20	1.079743515	0.00438	0.92218

PC21	8.925024472	0.0051	0.86942	PC21	1.036293054	0.00404	0.92622
PC22	8.674607795	0.00482	0.87423	PC22	0.994039518	0.00371	0.92993
PC23	8.655812489	0.0048	0.87903	PC23	0.990831409	0.00369	0.93362
PC24	8.579844195	0.00471	0.88375	PC24	0.98437143	0.00364	0.93727
PC25	8.478967909	0.0046	0.88835	PC25	0.966399312	0.00351	0.94078
PC26	8.266569144	0.00438	0.89273	PC26	0.932054186	0.00327	0.94404
PC27	8.178321148	0.00428	0.89701	PC27	0.910924566	0.00312	0.94716
PC28	8.075284835	0.00418	0.90119	PC28	0.885875491	0.00295	0.95011
PC29	8.031326983	0.00413	0.90532	PC29	0.876291312	0.00289	0.953
PC30	7.921436494	0.00402	0.90934	PC30	0.829573202	0.00259	0.95559
PC31	7.840072626	0.00394	0.91327	PC31	0.804853634	0.00244	0.95802
PC32	7.828614792	0.00392	0.9172	PC32	0.802287174	0.00242	0.96044
PC33	7.644714005	0.00374	0.92094	PC33	0.783863347	0.00231	0.96275
PC34	7.588711475	0.00369	0.92463	PC34	0.776367159	0.00227	0.96502
PC35	7.560178559	0.00366	0.92829	PC35	0.758027581	0.00216	0.96718
PC36	7.494497919	0.0036	0.93189	PC36	0.751754313	0.00212	0.9693
PC37	7.488384395	0.00359	0.93548	PC37	0.735672675	0.00203	0.97134
PC38	7.33525147	0.00345	0.93892	PC38	0.725181825	0.00198	0.97332
PC39	7.247422563	0.00336	0.94229	PC39	0.709800438	0.00189	0.97521
PC40	7.167196397	0.00329	0.94558	PC40	0.694964315	0.00182	0.97703
PC41	7.14307014	0.00327	0.94884	PC41	0.679372952	0.00174	0.97876
PC42	7.085311119	0.00321	0.95206	PC42	0.649556796	0.00159	0.98035
PC43	6.97708474	0.00312	0.95518	PC43	0.648254434	0.00158	0.98193
PC44	6.921654358	0.00307	0.95824	PC44	0.640640377	0.00154	0.98347
PC45	6.899226304	0.00305	0.96129	PC45	0.627095172	0.00148	0.98495
PC46	6.837016126	0.00299	0.96429	PC46	0.619071053	0.00144	0.98639

PC47	6.753999015	0.00292	0.96721	PC47	0.600137073	0.00135	0.98774
PC48	6.590720246	0.00278	0.96999	PC48	0.572495608	0.00123	0.98897
PC49	6.539528629	0.00274	0.97273	PC49	0.559905283	0.00118	0.99015
PC50	6.462516489	0.00267	0.9754	PC50	0.540686846	0.0011	0.99125
PC51	6.342449687	0.00258	0.97798	PC51	0.529964841	0.00106	0.99231
PC52	6.201162871	0.00246	0.98044	PC52	0.503367294	0.00095	0.99326
PC53	6.142557625	0.00242	0.98286	PC53	0.479375297	0.00086	0.99412
PC54	5.899163724	0.00223	0.98509	PC54	0.46206845	0.0008	0.99493
PC55	5.39131343	0.00186	0.98695	PC55	0.448041315	0.00075	0.99568
PC56	5.179751619	0.00172	0.98867	PC56	0.425389827	0.00068	0.99636
PC57	4.770038234	0.00146	0.99012	PC57	0.392322889	0.00058	0.99694
PC58	4.591266199	0.00135	0.99147	PC58	0.352474684	0.00047	0.99741
PC59	4.209482378	0.00113	0.99261	PC59	0.338740529	0.00043	0.99784
PC60	4.067125272	0.00106	0.99367	PC60	0.315560473	0.00037	0.99821
PC61	3.748979726	0.0009	0.99457	PC61	0.284633882	0.0003	0.99852
PC62	3.728239076	0.00089	0.99546	PC62	0.279146309	0.00029	0.99881
PC63	3.364175208	0.00072	0.99618	PC63	0.2564494	0.00025	0.99906
PC64	3.164652073	0.00064	0.99682	PC64	0.218460621	0.00018	0.99924
PC65	3.077037279	0.00061	0.99743	PC65	0.209880515	0.00017	0.9994
PC66	2.938092583	0.00055	0.99798	PC66	0.200357122	0.00015	0.99955
PC67	2.68135552	0.00046	0.99844	PC67	0.18945679	0.00013	0.99969
PC68	2.577367689	0.00043	0.99887	PC68	0.168336625	0.00011	0.9998
PC69	2.511657965	0.0004	0.99927	PC69	0.15377941	0.00009	0.99988
PC70	2.406343074	0.00037	0.99964	PC70	0.133412019	0.00007	0.99995
PC71	2.360136801	0.00036	1	PC71	0.113601245	0.00005	1
PC72	6.98411E-14	0	1	PC72	4.85374E-15	0	1

Table S4_module_GENE

Black			Blue		Brown	Pink	Red	Grey
ACO2	ACACB	RFX5	LPHN3	DENND1C	NAT1	ACP2	ACAN	ADRB2
ADCY3	ACADSB	RGS1	EHBP1	ATF7IP2	ADCY5	ACP5	AUH	GYPC
ARR3	ACPP	RGS4	FKBP15	ZFP2	APLNR	ACTA2	BDKRB2	RPL18
DST	ACTA1	RLN1	CUX2	LRRC8E	ALCAM	ADCY7	TSPO	TAF4B
SLC25A20	ACVR1B	RIT1	ZCCHC11	ZNF703	ANK2	AP1B1	C1QBP	NDC80
CALR	ADCY6	RNASE2	SYNM	ASRGL1	ANXA3	AIF1	CCND2	ARRDC2
CD151	ADCY9	RNASE3	VPS8	ARMC9	SHROOM2	ALDH1B1	CD36	CYB5R2
LRBA	ADCYAP1	RPGR	PSD3	ACSF2	ASPA	ALOX5AP	COX7B	REXO4
CDC27	ADORA2B	RPA2	PUM2	RAB11FIP1	AVPR1A	AMPD3	DR1	CREB3L4
CLN5	ADORA3	RPL15	AHCYL2	NUBPL	BAI3	AOAH	ENPEP	
CPT2	ADRA2A	MRPS12	ZDHHC17	ORAI2	BICD1	APBB2	ERCC4	
DUSP3	ADRA2C	RPN2	KIAA0368	TRABD	BMX	APOC1	ETV3	
EVC	ADRBK2	RPS4X	COTL1	ULBP2	CA3	APOE	FOXD1	
GTF2H4	AP2A2	RPS6KA1	TMED3	TNKS2	CA4	ARNTL	GLG1	
HP	AGTR1	RPS6KA3	SF3B1	PBX4	CAPN6	ASAH1	GLO1	
HSPA1L	AIM1	CLIP1	ANGPTL2	TTYH3	CASP3	ATP6V1B2	HSPA9	
HTR1B	AK2	RYR3	TGDS	THSD7B	CAV3	ATP6V0C	IL13RA1	
INSR	ALDH3B1	SALL1	CBX7	LY6G5C	SERPINH1	BCAT1	MATN3	
JUNB	ALOX5	SCML1	DAAM2	TMEM121	CDH2	BCL2A1	MCM7	
KLC1	ALX3	CCL7	TTC9	ITIH5	CDH11	BID	MFAP1	
KRAS	AMELY	CCL18	PIK3R5	STARD5	CIDEA	PRDM1	PBX3	
LIG3	BIN1	CCL20	SLC16A8	DDHD1	CMA1	BMPR1A	PIGC	

MSN	ANG	CXCL6	LILRA4	APOL6	CNTN1	BRAF	PLD1
NDUFA2	ANXA1	XCL1	TSPAN15	ILKAP	COL1A1	BTK	POLD2
NDUFB6	ANXA13	SDC1	LDOC1	NPL	COL4A2	C1QA	PPP2R1A
NDUFS1	APAF1	SEC14L1	SLC7A11	FBXO38	COL4A6	C1QB	PRKAG1
NDUFV2	APBA2	SGCD	RAB38	CDADC1	COL5A1	C1QC	DNAJC3
NGFR	APEX1	SH3GL1	APOL2	TMEM163	COL5A2	C3AR1	RNASEL
NME4	APOC2	SLA	C22orf31	CDT1	COL9A3	CASP1	MRPL23
NOTCH3	APOD	SLC1A3	TBC1D22A	LOC81691	CSF3	RUNX1T1	RPL38
NPC1	AR	SMTN	PGLS	DOCK8	CTBS	CD1D	TRAPPC2
OCRL	ARAF	SLC5A3	LMOD1	PPP1R14C	CTGF	CD247	SLC7A2
PCBD1	ARG2	SLC6A3	ARIH1	RNF170	CUX1	CD8A	TFDP2
PDK3	RHOH	SLC6A12	SULT4A1	ADAMTS10	DAB1	CD14	TIAL1
ENPP3	ARRB2	SLC6A13	RAB26	TRIM56	DACH1	ENTPD3	TMF1
PFAS	ARSB	SLC9A1	DFNB31	LAS1L	DES	CD48	UBE2L3
PGAM1	ARSE	SLC15A2	ZNF473	CABLES2	DIO2	CD53	XBP1
PMP22	ART3	SLC34A1	ABI3BP	FCRL5	DOCK3	CD69	ZNF91
POLR2B	ASL	SLC22A3	RCHY1	TCF7L1	DTNA	CD74	TFEB
PSKH1	ATM	SLC22A5	TMEM158	GSG1	DYRK1A	CD52	SF3A2
RPS16	ATOX1	SLIT3	AHCTF1	CDCA3	TOR1A	CTSC	MTMR1
RRAS	ATP2B1	SMARCC1	POT1	KATNAL2	EGR2	CKMT2	ALKBH1
RXRA	ATP5D	SMARCD1	MYRIP	NUF2	EPHA2	CCR1	EIF2B2
SRPK1	ATP6V1C1	SMARCE1	ZNF521	FAM110A	ENG	COL7A1	SLC25A14
SURF1	ATP6V1G2	SMPD1	PVRL3	C18orf21	EPHB6	SLC31A1	TGFBRAP1
TAF11	ATRX	SIGLEC1	KANK2	CCDC3	EYA4	SLC31A2	MINPP1
TARBP1	BAI2	FSCN1	TSKU	FAM167A	ERCC6	CP	RANBP9
TBL1X	BARD1	SNRPA	MOXD1	DYNLRB1	F2R	CRY2	ZNF197

U2AF1	BAX	SNRPG	OSBPL3	PARP9	F8	CSF1R	PSME3
ZNF45	BCHE	SOAT1	GLCE	RIOK1	FAP	CTSB	SPTLC1
ZNF222	BCL2L2	SOD3	CCDC9	SYT15	FBN1	CTSS	SMC2
YEATS4	BCL6	SOX11	CCDC69	TMTC1	FOXF2	CTSZ	GMEB1
BAP1	BCL9	UAP1	WSB1	TAF3	GAD1	DAB2	ZNF271
GNPAT	CFB	SPAST	TES	HMCN1	GALNT1	DGKG	PPP1R13L
CUL4A	ZFP36L2	SPI1	TRAF3IP1	MRO	GAS8	DMPK	COPS8
KLF11	BSG	SPINK1	RSL1D1	SPATA16	GFRA1	DOK1	PRDM4
HIRIP3	KLF9	SPINT1	PHGDH	CTTNBP2	GFRA3	DPAGT1	DZIP1
PEX3	KLF5	SPP1	B3GAT3	EMILIN2	GPC3	ARID3A	DENND3
LMO4	BUB1B	SPTBN1	FAM50B	PRAM1	GLI1	DUSP2	TCF25
PDE8B	C2	SQLE	OR4C1P	ZIC4	GMDS	TYMP	MESDC2
EIF3H	C5AR1	SSTR2	FBXO24	QRFPR	GPX7	EIF4EBP1	FAF2
SNX3	FMNL1	ST14	SLC13A4	ZNRF3	HAS2	EMP2	XPO6
CTNNAL1	CA2	STAT6	FBXO9	FAM175A	HBD	CLN8	TBC1D12
RAB11A	CA12	SULT1E1	SEZ6L2	USP48	HRC	EVI2A	EXOC7
CES2	CALM1	STK10	PLEK2	MEX3B	HSD17B3	EVI2B	ATMIN
GMPS	CAPN1	VAMP7	HEYL	ZMYND15	HTR2A	F10	DNAJC13
SQSTM1	CASP5	SYK	TIMM13	SYT3	IGSF1	FCER1G	KIAA0895
ITGB1BP1	CASQ2	TACC1	ITGB1BP2	HSDL2	IL3RA	FCGR2A	DDAH1
CDYL	CAV2	ADAM17	GREM1	HAGHL	INHBB	FCGR2B	PLXNB2
PIGB	CBFA2T3	TAGLN	CKAP2	BTBD10	ITPK1	FER	ZKSCAN5
RB1CC1	CBR3	TAF6	MRPL46	RNF135	KCNB1	FOLR2	PANX1
LCMT2	CCIN	MAP3K7	TBL2	CAPNS2	KCND2	FPR1	CCDC28A
ZBTB24	CCK	TAP2	NUFIP1	NUDT22	KCNK3	FPR3	UBXN7
KIAA0020	CD1B	TBX2	OPLAH	HPS3	KHK	FRK	FBXW2

WDR1	CD1E	TBX15	NBEA	C2orf40	KRT18	FYB	BBS9
GJC1	CD2	TBXA2R	GPR160	CARD11	L1CAM	GCHFR	UTP20
ABCF2	CD3G	TBXAS1	SIGLEC7	HHIPL1	LRPAP1	GGCX	SLCO3A1
HUWE1	CD19	HNF1A	LAT	BRSK1	MAOB	GLRX	DNAJC15
PDCD7	CD28	TCF7L2	ANKRD1	EFCAB7	MFAP2	GM2A	SNX11
HIPK3	CD80	TCN2	DAPP1	ZC3H8	FOXO4	GNA15	LRP12
PDIA6	CD86	TCP11	B9D1	FNDC1	MME	GPR1	STOML2
RAMP1	CD33	TEC	MTBP	ZNF469	MPP2	GPR20	G0S2
NOD1	SIGLEC6	TECTA	TAF5L	NTNG2	MYBPC1	GPR34	C6orf48
PPIE	CD34	TGFB1I1	CYTH4	EMR3	MYL1	CXCL1	COQ6
POMT1	CD72	THBS2	FILIP1	SLC9A7	MYO10	GSTZ1	ASCC1
MTHFD2	CD79A	THBS4	CPAMD8	MS4A14	NBL1	MSH6	YARS2
TXNL4A	CDC20	TCHH	CHIA	LOXL3	NPY5R	GZMA	CRYL1
PTPN21	CDC25B	TIMP4	SIGLEC9	NFKBID	TNFRSF11B	HCK	SCCPDH
PMF1	CDH3	TK1	GPR82	TRIM52	OXTR	HEXA	MRTO4
SPEN	CDK5	TLN1	GPKOW	RPUSD4	SERPINE1	HHEX	PCDH12
PHLDA3	CDKN2A	TLR1	SIT1	AIFM2	PCDH8	HIP1	REV1
SH3BP4	CENPE	TLR4	TNFRSF21	C1orf198	PCDH9	HLA-DMB	PPIL1
SDF2L1	RCC1	TSPAN8	CSDC2	TBRG1	SERPINA5	HLA-F	PTRH2
HYPK	CHGB	TMOD1	CNTN6	RNFT2	PCK1	HMGB3	CMPK1
CCDC19	CHI3L2	TNF	LSM3	FIZ1	PCP4	HMOX1	NUDT9
MTO1	CHKA	TNS1	SULT1B1	FAM104A	PCSK2	AGFG1	STX18
CNRIP1	CHN2	TPD52L1	SRPX2	CORO6	PDE2A	IRF8	TMCO1
SH2B1	LYST	TPM1	VENTX	RBM17	PDE9A	CFI	MTMR12
LDLRAP1	CHRNA2	TPP2	SPINK4	MGC16275	PGM3	IFIT3	WDR5B
TIMM9	CKB	TRAF3	PDLIM3	RERG	PHKA1	IGF1R	INO80

INTU	AP1S1	TRPM2	ADAMDEC1	NKD2	PLXNB1	IGJ	SLC41A3
FLVCR1	CLCN6	TSC1	PCDH11X	KIAA1755	PLXNB3	IL2RB	OXSM
SERTAD3	CCR5	TSSC1	ZNF638	ZC3H12C	PMP2	IL10RA	SHQ1
CXXC1	CMKLR1	TST	KCNMB4	SCIN	POU3F3	CXCL10	UEVLD
ZNRD1	PLK3	TUFT1	HTRA2	RSPH1	PPARG	IRF7	ZCCHC8
ISOC1	CNN1	TULP3	TOR2A	HPS4	PPL	ISG20	LUC7L
UBXN1	CNP	TXK	CECR6	LMLN	PPP1R1A	ITGAL	CDK5RAP2
ZNF639	COL4A3	TYRP1	IGLV6-57	SIGLEC10	PKIA	ITGAM	DOK5
ECSIT	COL4A4	UBE2B	REM1	KCNK17	MAP2K6	ITGB2	ZC3HAV1
SIRT6	COL10A1	UCP2	OSTM1	KLHL6	PTGER3	ITGB7	WRNIP1
UBE2D4	COL11A1	UFD1L	MRPL42	FAM181A	RORB	KCNMA1	SDR39U1
ASB2	COL16A1	UTRN	COMMD5	HS6ST2	S100B	KLRB1	TOMM22
ZFAND6	COX4I1	VAV1	SETD2	EMILIN3	CLEC11A	LCP1	ACN9
SPATA6	COX11	VHL	CCDC59	SNX21	SCN3A	LIF	AVEN
OTUD4	CPA3	VIPR1	THYN1	ZFAND2A	SCN7A	LIFR	BIRC6
BCAS3	CPE	VLDLR	UBE2T	SPOCD1	SCNN1B	LNPEP	ZNF512B
RETSAT	CLDN7	VSNL1	COMMD9	ESAM	CCL21	LYN	KLHL8
WHSC1L1	CPM	WARS	PYCARD	CCDC149	CCL23	LYZ	ZNF319
FAM120C	CRABP2	CORO2A	TAGLN3	LMF2	SELE	MARCKS	USP28
C4orf27	CRHR1	WFS1	CD274	C12orf29	SEMA3F	MAN2B1	SRPRB
SBNO1	CRIP2	WT1	PARVB	DDX60L	SFRP4	MAP2	FASTKD5
C11orf57	CRMP1	XPA	SNX10	ANKRD40	SFTPD	MARK1	AASDHPPT
ELP2	HAPLN1	ZIC3	SNX15	SESTD1	SCG5	MDK	C17orf75
SMEK1	CSF2RA	ZNF16	GPR132	ANKRD44	SHOX2	MEST	RHBDF1
PARVA	CSRP1	ZNF23	PDZRN4	RSAD2	SIM1	MICB	MPP5
AGK	CTLA4	ZNF33B	NRBP1	NEXN	SNCG	MLF1	WDR13

NGLY1	CTRL	ZNF133	RHOD	NLRP12	SOX10	MMP19	SMURF2
VPS11	CTSO	ZNF142	SLC39A3	ZNF804A	SPARC	NUDT1	FBXL17
ZNF302	CX3CR1	ZNF143	LMCD1	CHRDL1	SRD5A1	MYO1F	MRPS11
DIABLO	CXADR	VEZF1	TBX21	TIMD4	SSR1	MX2	TRAK2
AKR1B10	CYBB	ZNF165	EMR2	NDUFAF2	STAC	PPP1R12B	GEMIN6
KIAA1468	CYP4B1	RNF112	CD209	DAPL1	MED22	NFIX	ACTR5
EPB41L5	CYP27A1	ZNF195	SOCS7	ZNF461	SYP	NFKBIE	CEP76
COPS7B	CD55	ZNF215	EHD4	TMEM132C	TAC1	OCA2	CHD9
ZNF574	DAPK1	MAP3K12	CDR2L	MEX3A	THRSP	P2RX4	EDEM3
MRPL36	DEFA4	ZXDA	SMARCAL1	NAF1	THY1	P2RY6	TSEN2
AHNAK	CFD	RNF103	IL21R	ATXN3L	TSPAN7	CNTN3	ITFG1
TMEM185B	DIAPH1	SCG2	CUZD1	SLC38A5	TNFAIP6	PCDH7	SPRY4
DHRS11	DLG1	USP7	TAS2R9	ZNF276	TNNT3	PDE3B	PLVAP
NLRX1	DLX5	KCNAB1	VILL	B3GNT7	TPO	PGAM2	CCM2
CEP63	DOCK2	SLBP	SLC35C2	TMEM44	TRO	PGK1	STK40
ZNF436	DPP4	ST8SIA4	BOLA1	SYCE1	TNFSF4	PGM5	TM2D1
PTDSS2	DPT	SLC39A7	ZNF691	CACNA2D4	VIPR2	SERPINE2	FYTTD1
MAP1LC3B	DSC2	FZD3	MRPL2	TADA2B	WNT11	PLAUR	COQ5
UCK1	DSP	ARHGEF5	SIDT2	FOXQ1	ZIC2	PLCB4	VPS25
JAM3	DUT	TUSC3	DYNC1LI1	PPP1R14A	ZNF124	PLCL1	DISP1
ZNF394	E2F4	ADAM12	CERCAM	C1orf85	PXDN	PLEK	DIXDC1
USP42	EBF1	MLF2	HN1	TMEM106A	EPM2A	CTSA	TRIM4
C19orf44	LPAR1	SSPN	C3orf18	MFSD3	STAM	PPP1R3C	EXOC3L2
FBXW9	EDN3	AKAP1	DCTN4	SDSL	ALX1	PRKAA2	LIN52
LLPH	EFNB3	SYMPK	LEF1	SIGLEC11	MIA	PRKD1	ALKBH8
COX4I2	EGR4	CHAF1B	HSPA14	PRO2852	HIST2H2BE	PTAFR	TMEM129

DNAJC14	EMD	EPX	GLRX5	PALM2	NME5	PTGER2	ORMDL1
RHOT2	EMR1	HIST1H2AM	PIPOX	NLRP3	PPFIBP2	PTK2	EFHC1
ZNF766	EMX2	MAD1L1	UBAP1	ERMAP	ITGA10	PTPN6	ZNF689
LYRM7	ENO1	BCAR3	GOLM1	CARD16	DGKD	PTPRC	THEM4
RNF185	ENO2	SOAT2	TLR7	MBD6	APOL1	RAC2	C15orf40
TIMM50	EPHX2	DYRK3	GMIP	TMEM200A	RUVBL1	RAP2B	C9orf85
TOE1	ERCC2	DHX16	NRN1	SLAMF6	PTCH2	RARRES1	PIWIL4
IQCD	ETV5	CUL2	FAM53C	OSBPL6	ALDH4A1	RFXAP	LYSMD4
ZSWIM7	ETV6	CUL1	TEX264	C1QTNF1	B3GALNT1	RNASE6	ZNF738
C15orf61	EYA1	SORBS2	RWDD1	C1QTNF2	NOL4	RRAD	CCDC117
SLFN5	EYA2	GPR65	BIN2	C1QTNF6	ADAM9	RRM2	C18orf54
RNF168	F2RL1	CILP	PRKAG2	FBXO17	GGH	RYR2	ZNF383
PTPLB	FABP4	PPFIBP1	PCYOX1	GBP5	SEMA5A	S100A11	PAPD4
TMEM192	FAH	PPFIA2	DCDC2	NOSTRIN	USP2	SAT1	PRSS35
SVIP	FBN2	PPFIA1	NOP16	ALPK2	NOG	ATXN2	NSMCE1
ANKRD52	FCGR1B	ENC1	C11orf73	RASGRP4	ADIPOQ	CCL4	MTIF3
EID3	FDXR	KCNAB2	NCKIPSD	FAM122A	CABP1	CCL5	TBCEL
MICA	FGF2	CHST1	GDE1	TLCD1	RGS6	SELL	ALKBH3
	FGF8	KMO	RASD1	RBP7	GCC2	SELPLG	N6AMT2
	FGF9	KLF7	GINS2	RAB39B	HERPUD1	SETMAR	LRRC57
	FGF13	PPAP2B	NUB1	FAM129A	ZNF536	SH3BGR	ARL16
	FGFR1	UNC5C	MPP6	MRGPRF	TOX	STAT4	STAC2
	FGG	RNASET2	WBP11	SCGB3A2	RIMS3	SULT1A1	MED11
	FGL1	IRS2	ARID4B	SLC16A10	PHYHIP	SURF4	PEF1
	FLNA	EIF3B	HIGD1B	TAGAP	SLC12A6	TAP1	LOC728613
	FLNC	MARCO	ATP8A2	ZNF354B	KCNE2	TARBP2	

FLT3	ABCC3	ZAK	OLFM3	ARPC1B	TEAD3
FUT4	TNFRSF25	SIX4	PIK3AP1	TSPAN1	TFDP1
FUT8	GPAA1	BCL11A	MMP21	ANGPTL7	TLR2
GABRB2	MYOM1	TM6SF1	SLC36A4	LRRC17	TLR5
GAP43	TNFSF14	P2RY13	LRIG3	RAMP3	GPR137B
GBP1	CDS2	GPR84	SP7	TRDN	TRAPPC10
GCNT1	TNFRSF14	POLE3	GTSF1	ATP8A1	TNNC1
GDF2	FADD	CYCS	BTBD11	RAPGEF3	TPM2
GDF10	SIGLEC5	TREM2	SLAIN1	POSTN	TRPS1
GFI1	TNFRSF11A	WNT4	C14orf28	CHL1	UGCG
GGT5	SUCLA2	YIPF1	C14orf79	KDELR3	COL14A1
GJA4	IQGAP1	KCTD5	ACOT4	ATF7	VCL
GK	NRP2	ANLN	IQCK	TDRKH	LAT2
GLDC	CD84	MOV10L1	PAQR4	RAB31	WNT5A
GNAI1	WISP2	ARMCX6	EARS2	TPPP	XG
GNG4	WISP1	FAM105A	CANT1	ADAMTS8	XK
GNGT2	HDAC3	APBB1IP	SLC43A2	NUPL2	XPNPEP1
GPM6B	VNN1	MAGEL2	OSCAR	NUDT6	ZNF148
CXCR3	SGPL1	GNL3L	CPT1C	CNKSR2	LAPTM5
GPR18	FUBP1	GNB1L	LRRC25	MLXIP	CXCR4
GPR19	SKAP2	PARP14	SHE	ARHGEF15	SLMAP
GRK5	KYNU	FAM63B	IFFO2	PLA2R1	LST1
GRK6	PLOD3	LRRN3	SLC44A3	TNIK	PLA2G7
GRB10	MPZL1	MPHOSPH8	PODN	PEG10	EOMES
GRB14	SOCS3	FAM20A	UBXN10	COBL	PIP5K1B
GRIA3	CCRL2	DIRAS2	FCRLB	CRTC1	SPOP

GRINA	DOK2	BNC2	LIX1L	ABCA6	LTBP4
CXCL3	PSTPIP1	ZCCHC10	LYG1	GCAT	TPST2
GRP	ANGPTL1	SYTL2	MITD1	NPTXR	GAS7
GSTM5	LDB2	SIDT1	FBLN7	PIGN	CST7
GUCY1B3	RGN	ANKRD49	REG3G	FLRT1	CBX4
GYG1	INA	PAQR5	C2orf76	BAMBI	CDC14B
GZMH	SLC16A6	FAM46C	UBR3	BACE2	YARS
GZMB	SLC16A5	TMEM104	C2orf50	MGAT4C	SLC25A12
GZMK	FAM50A	BCOR	CCDC148	SOSTDC1	HSD17B6
HIST1H1C	SYNGR3	ANKHD1	DNAJC19	PLEKHG3	AOC3
HADH	SYNGR1	UHRF1BP1	FAM131A	SLITRK5	VAMP8
HBB	DGKI	ALKBH5	OCIAD2	KIF26A	JRKL
SERPIND1	RASSF9	RNF43	SPATA18	OR10J1	TNFSF13
HELLS	DEDD	SEMA4C	AASDH	CNNM4	INPP4B
NCKAP1L	SLC16A7	CMTM6	TMEM171	SRPK3	FCGBP
HGF	DCLK1	SARS2	NUDCD2	DENND2A	PER3
HK2	BMP15	OCIAD1	SHROOM1	CDH19	PKD2L1
HK3	LGI1	C19orf24	ADAT2	TRIB2	SLC7A7
ZBTB48	FAIM3	HEATR3	B3GAT2	DCPS	SLC7A6
HLA-DQB1	IL32	FKBP14	CD109	TMOD2	PAPSS2
MR1	CRLF1	MOCOS	FAM92A1	SOX8	KCNQ4
HMGA1	BZRAP1	PLEKHB2	ADHFE1	TMEM216	FIBP
HMMR	MFHAS1	KIF26B	AGPAT6	SCARA3	MAGI1
NR4A1	STK17B	SLFN12	C9orf135	EMCN	PTTG1
HOXA11	CYTH1	ANO10	DOCK11	SELT	CD83
HOXB7	BCL7B	FIGN	TCP10L	COQ3	CD163

HOXC6	TRIP10	CDCA8	S100A16	MYO3A	AIM2
HOXD8	ZNHIT3	TMEM38B	TCEAL2	RBM11	FHL5
HSPA4	SNAP29	SDAD1	ZBTB46	CLIC6	ROCK2
TNC	EFTUD2	DARS2	BRI3BP	MTRF1L	APBA3
IBSP	CER1	ARHGEF10L	DYNLL2	SAMD9	SNCAIP
IDH1	PPIG	TMEM33	NRSN1	PALMD	ISG15
IDH3G	COX5A	CEP55	ZNF280B	TMEM45A	PPM1F
IFRD1	LIPG	BBS7	SIRPA	SAMD4B	HS2ST1
IGBP1	KCNK6	FANCI	TMEM86A	APPL2	ZNF516
IGFBP5	ABCG2	SLC38A7	PRICKLE1	ETNK2	SDC3
IGHM	LY86	STEAP3	E2F7	GALNT10	DOCK4
IKBKB	PGS1	C7orf43	PRIMA1	KIF21A	STARD8
IL1B	SLC4A8	TMEM19	FBXL16	PPP1R9A	KIAA0101
IL1RAP	MYOT	PHF10	TMED6	RADIL	SPOCK2
IL2RG	RPH3AL	TMEM140	CD300LF	HR	CLEC2B
IL10	ADAMTS2	SPTLC3	CCDC42	WSB2	DPP3
IL12A	ADAMTS1	DDX19A	SLFN13	SULF2	ATP9A
IL12RB1	GDF15	PLCXD1	WIPF2	UBFD1	TRAP1
IL18	MPDU1	HJURP	CBLN2	ANKH	DHRS9
ILK	BAG5	PI4K2A	ANKRD29	IFNK	LHFPL2
IDO1	BAG3	LRRC59	TMEM190	ANKS1B	STX6
INPP5A	CXCL14	MEG3	IGFL2	NDUFA4L2	HNRNPR
INPP5D	BCAR1	TNFRSF19	FAM187B	STOX2	IGSF6
IPP	CLOCK	H2AFY2	CILP2	RCN3	IRX5
IRF5	APOBEC3B	SLC30A10	C19orf25	NDRG2	NET1
ITGA2	ENTPD4	MIOX	ZNF569	NLGN4X	LILRB2

ITGA7	CREB5	OTUD5	PHF13	SORCS2	ZNF267
ITGAX	NFE2L3	ITLN1	GLIS1	SEMA6A	KLF2
ITIH2	NCOR1	KIF16B	FAM109B	KIAA1462	DLC1
ITIH3	IKBKE	LRRC40	SLC38A11	CADM3	MAD2L2
ITPR1	CTR9	DEPDC1	GPR155	ENOPH1	ENOX2
ITPR2	PHF14	FLVCR2	LRRC34	RHOU	TACC2
IVD	KIAA0391	HIF1AN	BTLA	WIZ	SPINT2
JAK2	EDEM1	NBPF1	RNF38	ENPP5	CNPY3
KCNA3	ESPL1	NECAP2	CCDC50	HAPLN2	SLC12A7
KCNA5	FAM131B	ZNF334	CNTN4	HPSE2	LILRB1
KCNJ5	USP34	DOK4	CCDC112	C2orf43	KDELR1
KCNJ6	GPRASP1	N4BP2	SAMD3	FKBP10	MLLT11
KCNJ8	RNF144A	HHAT	C6orf165	PCIF1	MAPRE2
KCNN4	DHX38	EDEM2	ZNF746	TNMD	ADAP1
KDR	DLGAP5	INTS9	ATP6V0E2	LEPRE1	PIM2
KIT	SCRN1	C1orf106	AMZ1	SOX17	DIDO1
KLRC3	ARHGAP11A	PRR11	LOC157740	ZMAT3	CORO1A
KIF11	RGP1	ZNF839	MAMDC4	CDH22	LDB3
KRT13	ARHGEF17	MCTP2	KIAA2026	TNS3	SLC2A6
KRT14	TRIM14	FGD6	C11orf65	SLC30A5	CHEK2
LAIR1	JAKMIP2	ADAP2	DGKH	CYP4F12	DUSP10
LAMA5	MELK	ALLC	CLEC14A	PRRG4	DDX19B
LAMB1	KIAA0125	ASH1L	DYX1C1	KDELC1	MGAT4A
LAMB3	OSBPL2	NKRF	PGBD4	TCTN1	VSIG4
STMN1	ZBED4	MYO5C	NAGS	FAM184A	EXOSC8
LCK	TELO2	NXF5	ZNF600	ZNF419	TWF2

LCP2	UBAP2L	PCDHB15	LGI4	CLIP4	SYNPO
LCT	KLHL21	PCDHAC1	ZNF100	CLMN	PHLDA1
LGALS2	FAM20B	RNF17	APCDD1L	MMRN2	LPHN1
LGALS8	IQSEC1	BTNL2	FAM171B	HDAC11	NCBP2
LIG1	KIF14	CPXM1	MMAA	ZNF442	KIF1B
LIG4	P2RY14	PRMT8	OLFML2A	UXS1	DCUN1D4
ABLIM1	HS3ST4	DNAJC12	GLIS3	FHOD3	STAB1
LIMK1	SLC23A1	C10orf2	ZCCHC12	EFHC2	KANK1
LIPC	TNFSF15	POLE4	FUT11	PDGFD	ANKRD12
LMAN1	AKT3	KCNK13	CLEC4C	GKAP1	CAMTA1
LOX	KCNE3	SUCNR1	ASXL1	CCDC68	DMXL2
LPP	BCL2L10	SLAMF8	SYNPO2	ADAM33	SYNE1
LRP1	BCL2L11	TCEAL7	ZNF675	YIPF5	QPRT
LRP3	PARP3	C15orf39	PPAPDC1A	C1orf21	HEY2
CD180	TOM1	MEIS3	MPZL3	SOX7	TSPAN12
M6PR	DNAJB6	SEMA3G	AMN1	CRISPLD2	CLEC5A
MXD1	UBA2	CA10	ADCY4	FGFBP2	RABGAP1
MAD2L1	IL18BP	ARNTL2	UBR1	ARMC2	LY96
MAF	TSPAN5	C5orf15	EME2	SLITRK6	PLD3
MAL	PPIF	FAM20C	NLRC3	CAMKK1	PLA2G15
MAOA	KIF20A	KIF15	TTC21A	PCGF5	FTSJ1
MAS1	ARL4C	ENTPD7	TCTEX1D1	PPAPDC1B	FJX1
MCAM	RASGRP1	PCNP	SPAG17	PLXDC2	QPCT
MCF2	LRPPRC	NAT14	CRTC2	TOX2	TXN2
MDFI	EBI3	CAMK1D	LIPH	PPP1R16A	PNKD
MDM2	AASS	LPAR5	GAPT	TMEM141	EGFL6

MEF2D	SLC25A15	PLXDC1	HTRA4	MYLK2	SUSD5
MEIS1	SORBS3	LYRM4	ADAM32	FHDC1	FBXO8
MEIS2	TSHZ1	MAN1C1	CCDC107	FAM110B	AK5
MAP3K4	ALG3	TMEM159	SAMD9L	IGFN1	GBGT1
MEN1	MPHOSPH9	ASPHD2	ZCCHC24	TP53RK	FHOD1
MEOX1	KLRG1	ADAMTSL3	ARMC3	MED8	BLNK
MFAP4	GPA33	SEPN1	SLC37A2	CYGB	TFPT
MFGE8	COQ7	THAP11	LRRC63	XKR4	GPR171
MGAT2	NBR2	SPC25	HNRNPUL2	OSBPL8	HCFC2
MKI67	RCAN2	AS3MT	NT5DC1	PTPMT1	GMPPA
NR3C2	LRRC23	NDRG3	FAM162B	GPR146	SEC61A1
MMP1	RASGRP2	SLC12A5	BEND6	CMTM5	PILRA
MMP2	TIMM17B	GRAMD1B	TMEM217	IP6K3	SH3KBP1
MMP11	EFS	KIAA1211	FGD2	FAT3	SCAPER
MMP12	DNAJA2	RNF150	RBM24	ERP27	CHST11
MMP13	CCNO	NLN	TWISTNB	FRMD6	CLEC4A
MMP14	TNIP1	ODF2L	SDK1	LEO1	SOST
ALDH6A1	LAMC3	AHRR	DAGLB	HSPB6	RRP15
MPV17	TLR6	KIDINS220	PRR15	TSHZ2	APH1A
MPZ	PCGF3	ZNF608	RSBN1L	ACVR1C	IRAK4
MSR1	CCL26	MTUS1	SLC35F1	C6orf141	AADAT
MT1M	YAP1	XPO5	CDC26	PNCK	RAB9B
MXI1	N4BP2L2	GPR158	STAC3	MACROD2	ZNF571
MYH10	TIMM44	CASKIN2	ZBTB38	C10orf82	RASL12
MYH11	EIF3M	STARD9	MSRB3	PLEKHA7	CYP39A1
MYLK	CAP2	HECW2	YTHDF3	SLC30A7	FKBP11

MYO1C	CIB2	PCDH19	EHBP1L1	CHADL	PLAC8
MYO5A	DEAF1	ALPK3	CNIH2	ZNF385B	MS4A4A
MYO6	KAT5	MICAL3	MCOLN2	C3orf55	PLA1A
MYO7A	IPO8	PDZD4	NPNT	IGSF11	FAM49B
MYO9A	ATG7	DIP2B	SERINC5	KLB	CECR1
MYOC	BATF	RANBP10	FRMD3	IRX2	FXYD5
PPP1R12A	DCTN2	KIAA1467	C1orf101	BTNL9	TREM1
NAGA	ARFGEF2	LRCH2	ARHGAP30	TMEM74	SH3TC1
NAIP	CCT7	LRRN1	IL4I1	LCN6	SASH3
NAP1L2	USP16	CCDC146	BEST4	KANK4	PRR13
NCBP1	SH2B2	RNF213	RGL4	LONRF2	CPVL
NCL	PDPN	VAT1L	NAP1L5	DAND5	ZNHIT6
NDUFA4	RAD51AP1	CPNE5	P4HA3	PLD5	SLC35F2
NDUFA9	YKT6	DENND1A	CCDC88B	ANKRD23	XAF1
NDUFB4	KHDRBS3	MARK4	TTC9C	CMYA5	ZNF853
NEFH	CD226	HES4	HARBI1	ANO5	GIPC2
NEFL	CGREF1	G6PC2	DPY19L2	UNC5B	RMND1
NF2	PNMA2	SLAMF7	GPR137C	VSTM2A	UBE2W
NFIA	CORIN	SLC46A2	VMO1	CADM2	SLC29A3
NFIB	POLQ	PTBP2	PIGW	EBF3	SLC22A15
NMB	PLK4	CXCL16	CISD3	KANK3	TBC1D2
NOV	RFPL1S	TP53INP2	SLC13A5	HSPA12A	TRIM36
NOVA2	RAI2	NLRC4	PTRF	PGM2L1	SOX6
NPR1	KIF1C	HIVEP3	METRNL	IGSF10	BMP2K
NPY1R	GRAP	UBL5	LAMA1	TUSC5	H2AFJ
NRGN	HBS1L	PLEKHA2	SIGLEC15	UBAC2	MBD5

NTF3	NEK6	RXFP1	ZNF547	GPIHBP1	RNF130
NTRK1	IQGAP2	LGR6	C20orf197	KLRG2	RCC2
NTRK2	CYSLTR1	TMEM35	SLC9A9	LRRTM1	BCCIP
ROR1	SEC24A	AVPI1	RABL3	FAM101B	CLDND1
NUCB2	FRS3	EDA2R	C3orf70	C1orf95	C1GALT1
GPR143	CD3EAP	CCDC90B	CRIPAK	PLEKHM3	LXN
OAS1	ADAM28	SCOC	GPRIN3	PAIP2B	C12orf5
OAS2	ARID5A	TNN	FRYL	EIF2AK4	JPH2
OAS3	HCST	CIDEC	RELL2	FAM166B	RHBDD2
OLR1	CD300C	GPSM3	DCBLD1		CC2D2A
OSM	NMU	DMRTC2	NSMCE2		SHROOM3
CLDN11	CFHR4	ANO3	C8orf31		GRAMD1A
P2RX1	GPR83	MYO1G	SCARA5		KIAA1598
P2RX5	RUNDC3A	SLC28A3	FAM133A		HAMP
P2RX7	SUGT1	GAL3ST2	TRIM59		WFDC1
PA2G4	UTS2	SAMSN1	C14orf39		MS4A7
PAK3	GADD45G	SMOC1	SNAI3		NTN4
PBX1	SMPDL3A	LRRC4	RAB7B		APOBEC3G
PC	BTG3	CENPK	CCDC84		PRDM16
PCNT	LMAN2	RTP4	FAM19A2		PARVG
PDE3A	ERP29	TINAGL1	ENPP7		NOD2
PDGFRL	SDS	ZFYVE20	C1orf174		DPEP2
PDK4	SLC27A3	NCAPG	ZC3H12D		MS4A6A
PDZK1	SLC27A2	ERAP2	TSPAN33		ARHGAP9
PENK	LILRB4	DNAJC1	RSPO2		UNKL
PEX14	LILRA1	STRA6	ANKRD33		RASAL3

PFDN2	LILRB3	RNF25	GLDN	UPF3A
VIT	RBPMS	WBSCR17	FMN1	NADK
PGR	STMN2	DCLRE1C	ATXN1L	ZSCAN18
ABCB1	ESM1	CLEC7A	ZNF404	LYNX1
SERPINA1	ADAMTS13	HIAT1	LOC344887	PCYOX1L
SERPINI2	KRR1	GORASP1	MACC1	YIPF2
PIK3C2A	HIBADH	ATPAF1	EP400NL	EFHD2
PIK3CB	FAF1	S100PBP	RBPMS2	GLB1L
PIK3R2	CD160	CRTC3	GEN1	TNFAIP8L2
PIN4	POLR3A	NMNAT1	IRF2BP2	ALG9
PLA2G2A	ZWINT	ISL2	DND1	NUDT18
PLAG1	KPTN	MRPS6	NDUFS7	DOK3
FXYD1	TBC1D8	SLC26A10	HDDC3	DENND2D
PLN	PKIG	REEP1	C3orf62	ZNF614
PLP1	FICD	NOL6	MAST4	CXorf21
PLXNA1	PTP4A3	STK33	ZKSCAN4	TRAF3IP3
PMAIP1	PSIP1	CHID1	RASL11A	GRIP2
PRRX1	MAP4K1	COLEC11	SLC22A25	COLEC12
POLE	INMT	VKORC1	TNFAIP8L3	FAM49A
POLH	WIF1	CENPM	C16orf87	FAM117A
PPP2R1B	GALNT6	NUP37	C1orf53	NIPA2
PPP2R2B	GALNT5	SPATA5L1	VGLL3	CAB39L
PPP2R5C	SEC63	PVRIG	C5orf46	SLCO5A1
PPP6C	NXPH3	ZFYVE21	LOC389641	ADPGK
PRB1	PACSIN2	KCTD15	OR52K3P	FERMT3
PRF1	FILIP1L	ALG8	LOC399900	NRIP2

PRKACA	KLF8	MLPH	PCNXL3	TM2D2
PKIB	POU6F2	SLC25A23	GTF2H5	IMMP2L
PRKAR2A	PNKP	DHX58	MXRA7	MND1
PRKG1	B4GALT7	FSD1	MAP1LC3C	SLC41A2
MAPK10	SLCO2B1	IRX3	MIAT	ST6GAL2
MAPK13	CD300A	ZNF557	IQCF6	AFAP1L2
PRKRIR	TMC6	ZXDC	C4orf47	POLR2J4
PRPH	STK38	CDC73	FAM26F	LMNB2
PRSS3	COG2	SAP130	TSPAN11	HAVCR2
RELN	TFEC	PGBD5	STGC3	ZDHHC12
PSMA7	ITGA11	FAM118B	DUXAP10	LINGO1
PSMB1	IKZF3	RNASEH2B	C8orf58	ATOH8
PTGS1	HSPA4L	SRD5A3	C1orf145	SYTL1
PTK7	VASH1	MAP7D3	ZNF704	ZCRB1
PTN	AAK1	RHBDF2	LOC644135	LRRCC1
PTPN7	NLRP1	ZCCHC6	ZCCHC18	NAV1
PTPN13	ENPP4	GAL3ST4	ABCA17P	TP53I13
PTPRE	MORC2	GALNT12	LOC727820	ADCK2
PTPRF	ZHX2	PALB2	LOC727916	LONRF1
PTPRK	ARSG	NARS2	LOC729173	CABLES1
PVRL2	DKK1	E2F8	CCR2	OXNAD1
PYCR1	EFR3B	KCTD17	LOC729683	MYOCD
PYGM	RAB21	TTLL7	LOC730101	ARHGAP18
QDPR	GOLGA8A	ISOC2	SNORD114-3	SFXN1
RAB5A	KIF21B	RERGL	TMEM170B	EPSTI1
RAB5B	GGA2	FBXO31	HGC6.3	MRAP2

RABIF
RAD51
RAN
RANGAP1
RAP1A
RASGRF2
RBP1
RDH5
PRPH2
RELA
DPF2

TRIM35
ARHGAP26
LRCH1
FCHO1
MPRIP
GPD1L
METAP1
CEP68
FBXL7
NUP210
KIAA0922
CLEC16A

C12orf49
SHCBP1
C7orf63
TMEM180
TCTN2
PODNL1
RIN3
ZNF671
THNSL1
MRM1

LOC100130938
LOC100132661
LOC100132735
C17orf96

CMTM7
SFT2D1
C1QTNF7
RAB42
SFXN2
AMICA1
CMTM3
C1orf162
C22orf39
C4orf32
ENPP6
ABRA
SELM
MPP7
SLC38A6
C16orf89
KIF18B
TMC8
ZNF548
TMEM56
ZNF362
NFAM1
PPM1L
RDH10
TTLL11
FREM1

PRUNE2
SLC39A11
FBXO15
MED19
TMEM136
MPEG1
SLC16A9
PHYHD1
NAPSB
ALS2CL
RASSF3
LOC283861
FAM150B
RNF180
MMAB
IGFBPL1
DPY19L2P2
TMEM200B
C4orf48
C8orf59
TNAP
LOC729970

Table S5_BLUE_GO_KEGG

Enrichment analysis of GO among DEGs in blue module

ID	description	size	overlap	enrichmentRatio	pValue	FDR	geneID
GO:00069955	immune response	191	40	2.226587031	7.12E-07	0.00064739	ADORA2B;CD80;CD86;CCR5;CFD;DSP;FCGR1B;HK3;LAIR1;CD180;OLR1;P2RX1;RGS1;RNASE2;CCL18;CCL20;TLR1;MARCO;PSTPIP1;LY86;CXCL14;APOBEC3B;EBI3;CCL26;BATF;LILRB4;SIGLEC9;SIT1;ADAMDEC1;BIN2;TREM2;ITLN1;SLAMF8;CXCL16;CLEC7A;PRAM1;SIGLEC10;CD300LF;CLEC4C;GAPT
GO:00071555	cell adhesion	136	30	2.340843962	9.19E-06	0.00249583	CD80;CD86;CDH3;DPT;DSP;GPM6B;TNC;IBSP;MCAM;MFAP4;MPZ;MYOC;OLR1;VIT;RELN;SPP1;ADAM12;PSTPIP1;MYOT;EBI3;LAMC3;LILRB4;SLC7A11;GREM1;SIGLEC9;ADAMDEC1;PCDH11X;CUZD1;WNT4;SIGLEC10
GO:00022610	biological adhesion	137	30	2.327244288	1.03E-05	0.00249583	CD80;CD86;CDH3;DPT;DSP;GPM6B;TNC;IBSP;MCAM;MFAP4;MPZ;MYOC;OLR1;VIT;RELN;SPP1;ADAM12;PSTPIP1;MYOT;EBI3;LAMC3;LILRB4;SLC7A11;GREM1;SIGLEC9;ADAMDEC1;PCDH11X;CUZD1;WNT4;SIGLEC10
GO:00069954	inflammatory response	717	20	2.979651683	1.24E-05	0.00249583	ADORA2B;ADORA3;AGTR1;CCR5;FABP4;CD180;OLR1;P2RX1;PLP1;CCL18;CCL20;SPP1;TLR1;SCG2;PSTPIP1;LY86;CCL26;SLAMF8;CLEC7A;SIGLEC10
GO	leukocyte	1	2	2.43	1.3	0.0	ADORA2B;CD80;CD86;CFD;DSP;HK3;LAIR1;CD180;OLR1;P2RX1;RNASE2;SOX11;TLR1;EBI3;B

:00453 21	activation	18 4	7	5940748	7E-05	249583 08	ATF;LILRB4;SIGLEC9;SIT1;IL21R;BIN2;WNT4;SLAMF8;CLEC7A;PRAM1;CD300LF;CLEC4C;GAPT
GO:00301 98	extracellular matrix organization	34 7	13	4.001921 23	2.3 7E-05	0.0290945 64	COL10A1;COL11A1;DPT;GPM6B;TNC;IBSP;MFAP4;MYH11;VIT;SPP1;ADAM12;LAMC3;GREM1
GO:00430 62	extracellular structure organization	40 0	14	3.738717 949	2.4 3E-05	0.0290945 64	AGTR1;COL10A1;COL11A1;DPT;GPM6B;TNC;IBSP;MFAP4;MYH11;VIT;SPP1;ADAM12;LAMC3;GREM1
GO:00069 52	defense response	15 1 8	31	2.181446 573	2.5 6E-05	0.0290945 64	ADORA2B;ADORA3;AGTR1;CCR5;CFD;FABP4;FCGR1B;KLRC3;CD180;OLR1;P2RX1;PLP1;RNASE2;CCL18;CCL20;SPP1;TLR1;SCG2;MARCO;PSTPIP1;LY86;APOBEC3B;CCL26;BATF;TREM2;SLAMF8;CXCL16;CLEC7A;SIGLEC10;CD300LF;CLEC4C
GO:00974 35	supramolecular fiber organization	64 0	18	3.004326 923	3.1 3E-05	0.0315875 63	ACTA1;CASQ2;COL11A1;DPT;DSP;FGF13;KRT14;MFAP4;MYH11;MYOC;NEFH;RGS4;MYOM1;PSTPIP1;CCL26;LMOD1;GREM1;WNT4
GO:00017 75	cell activation	13 3 5	28	2.240430 231	4.2 4E-05	0.0369451 19	ADORA2B;CD80;CD86;CFD;DSP;HK3;LAIR1;CD180;OLR1;P2RX1;RNASE2;SOX11;TLR1;EBI3;BATF;LILRB4;SLC7A11;SIGLEC9;SIT1;IL21R;BIN2;WNT4;SLAMF8;CLEC7A;PRAM1;CD300LF;CLEC4C;GAPT

Enrichment analysis of KEGG among DEGs in blue module

ID	description	size	overlap	enrichmentRatio	pValue	FDR	geneID
hsa04512	ECM-receptor interaction	82	5	7.389227642	5.42E-04	0.176700016	TNC;IBSP;RELN;SPP1;LAMC3
hsa04062	Chemokine signaling pathway	189	6	3.847089947	0.004447589	0.6802719 2	CCR5;CCL18;CCL20;CXCL14;CCL26;CXCL16
hsa04080	Neuroactive ligand-receptor interaction	277	7	3.062394705	0.007405809	0.6802719 2	ADORA2B;ADORA3;AGTR1;NPY1R;P2RX1;GPR83;RXFP1
hsa04060	Cytokine-cytokine receptor interaction	294	7	2.885317 46	0.010124053	0.6802719 2	CCR5;CCL18;CCL20;CXCL14;CCL26;IL21R;CXCL16
hsa04620	Toll-like receptor signaling	104	4	4.660897436	0.010433 6	0.6802719	CD80;CD86;SPP1;TLR1

	pathway				18	2	
hsa04510	Focal adhesion	199	5	3.0448073706	0.0236306384	1	TNC;IBSP;RELN;SPP1;LAMC3
hsa04514	Cell adhesion molecules (CAMs)	144	4	3.3662037040	0.0305955061	1	CD80;CD86;CDH3;MPZ
hsa04145	Phagosome	152	4	3.1890350880	0.0362761021	1	MSR1;OLR1;MARCO;CLEC7A
hsa04974	Protein digestion and absorption	90	3	4.0394444444	0.0378291138	1	COL10A1;COL11A1;SLC16A10
hsa05323	Rheumatoid arthritis	90	3	4.0394444444	0.0378291138	1	CD80;CD86;CCL20

Table S6_PINK_GO_KEGG

Enrichment analysis of GO among DEGs in pink module

ID	description	size	overlap	enrichmentRatio	pValue	FDR	geneID
GO:0006954	inflammatory response	717	11	8.246906915	3.34E-08	3.03E-04	ACP5;C1QB;C1QC;FCER1G;FPR3;CXCL1;HMOX1;TLR2;PLA2G7;AOC3;CD163
GO:0006952	defense response	1518	14	4.957626758	1.53E-07	6.95E-04	ACP5;C1QB;C1QC;FCER1G;FPR3;CXCL1;HMOX1;TLR2;PLA2G7;AOC3;CD163;LILRB1;VSIG4;CLEC5A
GO:0061082	myeloid leukocyte cytokine production	31	3	52.02081165	2.53E-05	0.060684763	FCER1G;HMOX1;LILRB1
GO:0002367	cytokine production involved in immune response	99	4	21.71912675	3.26E-05	0.060684763	FCER1G;HMOX1;TLR2;LILRB1
GO:0032763	regulation of mast cell cytokine production	5	2	215.0193548	3.34E-05	0.060684763	FCER1G;HMOX1
GO:0050727	regulation of inflammatory response	361	6	8.934322223	4.62E-05	0.063476799	ACP5;C1QB;C1QC;FCER1G;TLR2;PLA2G7
GO:0002684	positive regulation of immune system process	979	9	4.941711424	5.00E-05	0.063476799	C1QB;C1QC;FCER1G;FPR3;HMOX1;TLR2;PLA2G7;LILRB1;VSIG4
GO:0002443	leukocyte mediated immunity	760	8	5.658404075	5.59E-05	0.063476799	C1QB;C1QC;FCER1G;CXCL1;HMOX1;TLR2;LILRB1;CLEC5A
GO:0032762	mast cell cytokine production	7	2	153.5852535	6.99E-05	0.064643233	FCER1G;HMOX1
GO:0032653	regulation of interleukin-10 production	46	3	35.05750351	8.38E-05	0.064643233	FCER1G;TLR2;LILRB1

Enrichment analysis of KEGG among DEGs in pink module

ID	description	size	overlap	enrichmentRatio	pValue	FDR	geneID
hsa05150	Staphylococcus aureus infection	56	3	20.50093985	3.84E-04	0.12527055	C1QB;C1QC;FPR3
hsa04610	Complement and coagulation cascades	79	3	14.53231179	0.00105535	0.16730291 4	C1QB;C1QC;VSIG4
hsa05323	Rheumatoid arthritis	90	3	12.75614035	0.00139597	0.16730291 4	ACP5;CXCL1;TLR2
hsa05142	Chagas disease (American trypanosomiasis)	102	3	11.25541796	0.00225996	0.17978871 1	C1QB;C1QC;TLR2
hsa05020	Prion diseases	35	2	21.86766917	0.00356668	0.23841474	C1QB;C1QC
hsa00260	Glycine, serine and threonine metabolism	40	2	19.13421053	0.00475648 5	0.25843566 1	PGAM2;AOC3
hsa05134	Legionellosis	55	2	13.91578947	0.00884701 4	0.41201807 5	CXCL1;TLR2
hsa01230	Biosynthesis of amino acids	75	2	10.20491228	0.01602735 5	0.52043077 5	BCAT1;PGAM2
hsa05133	Pertussis	76	2	10.07063712	0.01643504 4	0.52043077 5	C1QB;C1QC
hsa04260	Cardiac muscle contraction	78	2	9.812415655	0.01726377 9	0.52043077 5	RYR2;TNNC1