

GPD_ID 169

Effects of DNA methylation and gene expression on rats with protein malnutrition in early life

Raw Data File

Table S1. GO entries with significant enrichment of differential genes in LPE vs CON group.

GO ID	GO function	GO term	S gene number	Genes	P-value
GO:0007186	Biological process	G-protein coupled receptor signaling pathway	8	Adrb2;Apoe;Ccl12;Ccl3;Ccl5;Ccr3;Cx3cr1;Gpr15	0.01
GO:0043065	Biological process	positive regulation of apoptotic process	7	Adrb2;Lilrb3a;AABR07002001.1;Ptgs2;Rhob;Scin;Zmat3	0.04
GO:0006954	Biological process	inflammatory response	6	Ccl12;Ccl3;Ccl5;Ccr3;Ltb4r;Ptgs2	0.01
GO:0045766	Biological process	positive regulation of angiogenesis	5	Ccl5;Ccr3;Cx3cr1;Rhob;Sema5a	0
GO:0006874	Biological process	cellular calcium ion homeostasis	5	Apoe;Ccl12;Ccl3;Ccl5;Kel	0
GO:0070098	Biological process	chemokine-mediated signaling pathway	5	Ccl12;Ccl3;Ccl5;Ccr3;Cx3cr1	0
GO:0019221	Biological process	cytokine-mediated signaling pathway	5	Cish;Cx3cr1;Il1rl1;Lilrb3a;AABR07002001.1	0.01
GO:0051607	Biological process	defense response to virus	5	Ifit1bl;Ifit1;Lilrb3a;AABR07002001.1;Rsad2	0.01
GO:0009615	Biological process	response to virus	5	Ccl5;Ifit1bl;Lilrb3a;AABR07002001.1;Rsad2	0
GO:0005615	Cellular component	extracellular space	15	AABR07051583.1;AABR07060953.1;AABR07060979.1;Apoe;C1qtnf6;Ccl12;Ccl3;Ccl5;Ccr3;F7;Il1rl1;LOC100360791;Retnlg;Spink8;Tgfbr3	0.04
GO:0005887	Cellular component	integral component of plasma membrane	11	AABR07030590.1;AABR07032888.1;Adrb2;Cdhr1;Epha4;Ltb4r;Sgms2;Sstr3;Tgfbr3;Tigit;Tspan33	0.01
GO:0009986	Cellular component	cell surface	9	Apoe;Cd24;Epha4;Il1rl1;L1cam;Ptgfn;Tgfbr3;Tigit;Tspan33	0.03

Table S2. GO entries with significant enrichment of differential genes in LPF vs CON group.

GO ID	GO function	GO term	S gene number	Genes	P-value
GO:0007186	Biological_process	G-protein coupled receptor signaling pathway	10	Adgre4;Adgrg3;C5ar2;Ccl9;Ccr3;Cxcr2;Gpr132;Gpr183;LOC102553138;Ptifr	0.01
GO:0006955	Biological_process	immune response	10	AABR07051583.1;AABR07059308.1;AABR07060953.1;Cebpg;Enpp3;Mept8;Oas3;Procr;RT1-N2;Susd2	0.02
GO:0019221	Biological_process	cytokine-mediated signaling pathway	6	Cish;Il1r2;Il22ra1;Il2rb;Lilrb3a;AABR07002001.1;Pirb	0
GO:0007169	Biological_process	transmembrane receptor protein tyrosine kinase signaling pathway	5	AABR07035776.1;Csfl;Erb3;LOC680910;RGD1561143	0
GO:0009615	Biological_process	response to virus	5	Ifit3;Lilrb3a;AABR07002001.1;Oas3;Rsad2;Stmn1	0
GO:0007166	Biological_process	cell surface receptor signaling pathway	5	AABR07059308.1;Adgre4;Adgrg3;Cxcr2;Tspan33	0.02
GO:0016021	Cellular_component	integral component of membrane	65	AABR07003235.1;AABR07030590.1;AABR07043421.1;AABR07059308.1;Adgre4;Adgrg3;Antxr2;Btl10;C5ar2;Ccr3;Cd7;Clnd1;Clec4d;Cnep1r1;Csfl;Cxcr2;Cybrd1;Cyp4f18;Dgat2;Enpp3;Erb3;Evi2a;Gabra1;Gapt;Gpr132;Gpr183;Gramd1b;Il18rap;Il1r2;Il2ra1;Il2rb;Jam2;Klrg2;Lilrb2;Lilrb3a;AABR07002001.1;Lime1;LOC100909595;LOC102553138;Lrrc25;Mgat2;Mtd2;AY172581.9;Nsg2;Paqr9;Pirb;Plekhb1;Plvap;Procr;Prom2;RGD1308564;RT1-N2;Rtp4;Sdc3;Sema5a;Serinc4;Sigmar1;Slc12a9;Slc16a10;Slc25a37;Slc25a45;Slc37a1;Slc4a1;Susd2;Tmem97;Trem1;Xk	0
GO:0005887	Cellular_component	integral component of plasma membrane	16	AABR07030590.1;AABR07032888.1;AABR07035776.1;Cdhr1;Gabra1;LOC100909595;LOC680910;Prom2;Ptfr;RGD1561143;Rhd;Slc16a10;Slc16a3;Slc4a1;Slc6a9;Tspan33	0
GO:0009986	Cellular_component	cell surface	13	AABR07059308.1;Adgre4;Arso;Cpm;Cxcr2;Enpp3;Il2rb;Plvap;Procr;Prom2;Sdc3;Slc4a1;Tspan33	0.01
GO:0005623	Cellular_component	cell	7	AABR07030590.1;LOC100362384;Mapk14;Pdia5;Slc6a9;Trem1;Xk	0
GO:0031965	Cellular_component	nuclear membrane	6	Cnep1r1;Fzr1;Gch1;Osbp3;Slc16a3;Tmem97	0.03
GO:0042803	Molecular_function	protein homodimerization activity	15	AABR07032888.1;Asns;Cat;Cebpg;Csfl;Dgat2;Gch1;Hdc;Hp;Id1;Lilrb3a;AABR07002001.1;Plekhb1;Plvap;Slc4a1;Zbtb16	0.01
GO:0004930	Molecular_function	G-protein coupled receptor activity	6	Adgre4;Adgrg3;C5ar2;Gpr132;Gpr183;LOC102553138	0.02

Table S3. GO entries with significant enrichment of differential genes in LPF vs LPE group.

GO ID	GO function	GO term	S gene number	Genes	P-value
GO:0055114	Biological_process	oxidation-reduction process	19	Creg1;Cyb5a;Cybrd1;Cyp2j4;Degs2;Dhrs2;Dhrs3;Gpx1;Hsd17b1;Hsd3b7;LOC100359515;Ndufa8;Nos2;Pcyox11;Ppox;Qsox1;RGD1308564;Tmlhe;Txn2	0
GO:0006468	Biological_process	protein phosphorylation	14	AABR07069282.1;Bub1;Ccl12;Cdk11;Dyrk3;Eif2ak1;Map4k5;Mapk10;Mmd;Nek211;Stk4;Stradb;Tyro3;Vrk2	0.02
GO:0014070	Biological_process	response to organic cyclic compound	11	Acs11;Ctsb;F7;Gpx1;Hmbs;Hp;Mki67;Ppp1r15a;Txn2;Tyms;Urod	0
GO:0055085	Biological_process	transmembrane transport	9	AABR07029596.1;Slc12a9;Slc16a10;Slc22a15;Slc22a5;Slc37a1;Slc6a12;Spns2;Sv2a	0
GO:0001666	Biological_process	response to hypoxia	9	Cat;Cygb;F7;Hmbs;Hp;Muc1;Nos2;Tfrc;Txn2	0.01
GO:0007059	Biological_process	chromosome segregation	8	AABR07069282.1;Bub1;Cenpf;Cenpt;Cenpw;Esco2;Hjup;Nek211	0
GO:0032355	Biological_process	response to estradiol	8	AABR07059308.1;Cat;F7;Gpx1;Hmbs;Nos2;RGD1565355;AABR07059308.1;LOC103690020;Urod	0
GO:0007568	Biological_process	aging	8	Cat;Gpx1;Hp;Irs1;Nos2;Ppp1r15a;Tfrc;Tyms	0.04
GO:0006641	Biological_process	triglyceride metabolic process	7	AABR07029596.1;AABR07059308.1;Acs11;Cat;Gpx1;RGD1565355;AABR07059308.1;LOC103690020;Slc22a5	0
GO:0046777	Biological_process	protein autophosphorylation	7	AABR07069282.1;Eif2ak1;Epha4;Nek211;Stk4;Tyro3;Vrk2	0.02
GO:0042742	Biological_process	defense response to bacterium	7	AABR07065782.1;AC135826.1;Hp;LOC100359515;LOC102549714;Lyc2;Nos2	0.03
GO:0051301	Biological_process	cell division	7	Cdca3;Cdca8;Cenpt;Cenpw;Kif18b;Kif18c;Kif1	0.04
GO:0000070	Biological_process	mitotic sister chromatid segregation	6	AABR07069282.1;Cdca8;Kif18a;Kif18b;Nek211;Nusap1	0
GO:0009725	Biological_process	response to hormone	6	F7;Gpx1;Hmbs;Ncoa4;Nos2;Txn2	0
GO:0007623	Biological_process	circadian rhythm	6	Cldn4;F7;Nos2;Prok2;Slc4a1;Tyms	0
GO:0006874	Biological_process	cellular calcium ion homeostasis	6	Ccl12;Kel;LOC100911313;Rmdn3;Slc30a1;Sv2a	0
GO:0014823	Biological_process	response to activity	6	AABR07059308.1;Cat;Irs1;Nos2;RGD1565355;AABR07059308.1;LOC103690020;Slc4a1	0
GO:0006887	Biological_process	exocytosis	6	Ccl12;Exoc3l1;Hap1;Itsn1;LOC100911851;Sern1	0
GO:0045471	Biological_process	response to ethanol	6	Car3;Cat;Ctsb;Slc2a4;Tyms;Urod	0.03
GO:0009612	Biological_process	response to mechanical stimulus	5	AABR07059308.1;Asns;Ctsb;Nos2;RGD1565355;AABR07059308.1;LOC103690020	0.01
GO:0006457	Biological_process	protein folding	5	Ahsp;Pdia5;Ppif;Qsox1;Txn2	0.04
GO:0009636	Biological_process	response to toxic substance	5	Asns;Cat;Dhrs2;Gpx1;Tyms	0.02
GO:0016021	Cellular_component	integral component of membrane	66	AABR07015057.1;AABR07029596.1;AABR07043421.1;AABR07059308.1;AABR07072356.1;Acs11;C1galt1;Cd33;Cd3e;Clcn3;Cyb5a;Cybc1;Cybrd1;Degs2;Dgat2;Dhrs3;Evi2a;Fut2;Gpat3;Gpr132;Hepacam2;Hsd3b7;Il1r1;Il22ra1;Kcnk6;Kcns3;Kel;Laptm4b;Lhfp12;LOC100911313;Mgat2;Mmd;Mtd2;AY172581.9;Muc1;Pkd112;RGD1308564;RGD1565355;AABR07059308.1;LOC103690020;Rmdn3;Sdc3;Sec11c;Siglec5;Sirpd;Slc12a9;Slc16a10;Slc1a5;Slc22a15;Slc22a5;Slc25a37;Slc2a4;Slc30a1;Slc37a1;Slc4a1;Slc6a12;Smim15;Spns2;Sv2a;Tfrc;Tmcc2;Tmeff2;Tmem242;Tmem38a;Tnfrsf13c;Ttyh3;Tyro3;Vrk2;Wls	0.04

GO:0005739	Cellular_component	mitochondrion	41	AABR07029596.1;AABR07059308.1;Acaa2;Acs1;Car5b;Cat;Ctsb;Cyb5a;Ddah1;Ddx28;Dgat2;Dhrs2;Fbxo7;Gpx1;Hap1;Hk3;LOC100911313;LOC100911733;Mapk10;Mtd2;AY172581.9;Nags;Ncoa4;Ndufa8;Nmnat3;Nt5dc3;Pdp2;Ppif;Ppox;Ppp1r15a;RGD1565355;AABR07059308.1;LOC103690020;Rmdn3;Rsd2;Slc22a5;Slc25a37;Sp140;Tfrc;Tmlhe;Trak2;Txn2;Tyms;Uros	0
GO:0005794	Cellular_component	Golgi apparatus	20	AABR07043421.1;AABR07059308.1;Bend5;Cat;Clcn3;Cog5;Epha4;Esco2;Hepacam2;Hp;Kcns3;Mgat2;Mmd;Nucb2;Ppp1r15a;Qsox1;RGD1565355;AABR07059308.1;LOC103690020;Slc1a5;Slc30a1;Wls	0.03
GO:0005783	Cellular_component	endoplasmic reticulum	19	AABR07059308.1;Acs1;Cat;Cyb5a;Cyp2j4;Dgat2;Epha4;Gpat3;Hap1;Hp;Nucb2;Pdia5;Ppp1r15a;RGD1565355;AABR07059308.1;LOC103690020;Rsd2;Sec1c;Slc30a1;Sv2a;Vrk2	0.04
GO:0009897	Cellular_component	external side of plasma membrane	11	AABR07059308.1;AABR07065782.1;Cd33;Cd3e;Clcn3;Ctsb;RGD1565355;AABR07059308.1;LOC103690020;Scube1;Slc2a4;Tfrc;Tnfrsf13c	0.02
GO:0005874	Cellular_component	microtubule	9	Kif18a;Kif18b;Kif2c;Kifc1;LOC100911313;Nusap1;Rmdn3;Tcp1111;Tpx2	0.01
GO:0000775	Cellular_component	chromosome, centromeric region	8	Bub1;Cdc8;Cenpf;Cenpt;Cenpw;Hjurp;Kif2c;Mki67	0
GO:0000776	Cellular_component	kinetochore	8	AABR07069282.1;Bub1;Cenpf;Cenpt;Cenpw;Kif18a;Kif2c;Nek211	0
GO:0016324	Cellular_component	apical plasma membrane	8	AABR07029596.1;AABR07059308.1;Clcn3;Cldn4;Ctsb;Muc1;RGD1565355;AABR07059308.1;LOC103690020;Slc22a5	0.04
GO:0005741	Cellular_component	mitochondrial outer membrane	7	Acs1;Epha4;LOC100911313;Ppp1r15a;RGD1308564;Rmdn3;Rsd2	0
GO:0000777	Cellular_component	condensed chromosome kinetochore	6	Bub1;Cenpt;Cenpu;Cenpw;Hjurp;Kif2c	0
GO:0005901	Cellular_component	caveola	6	AABR07059308.1;Ctsb;Ehd2;Irs1;Kif18a;RGD1565355;AABR07059308.1;LOC103690020	0
GO:0000922	Cellular_component	spindle pole	6	AABR07069282.1;Cenpf;LOC100911313;Nek211;Rmdn3;Tpx2	0
GO:0042383	Cellular_component	sarcolemma	6	AABR07059308.1;Ank1;Cd59;Ctsb;RGD1565355;AABR07059308.1;LOC103690020;Slc2a4	0.01
GO:0005819	Cellular_component	spindle	5	Cenpf;Hepacam2;Kifc1;Nusap1;Tpx2	0.01
GO:0005623	Cellular_component	cell	5	Ccl12;Hk3;Kel;Pdia5;Slc6a9	0.02
GO:0016023	Cellular_component	cytoplasmic, membrane-bounded vesicle	5	Als2cl;Dmtn;Hap1;Tfrc;Wls	0.03
GO:0031982	Cellular_component	vesicle	5	Cd59;F7;Muc1;Slc2a4;Spns2	0.03
GO:0005524	Molecular_function	ATP binding	32	AABR07029596.1;AABR07069282.1;AC118772.1;AC135826.1;Acs1;Asns;Blm;Bub1;Cdk11;Clcn3;Ddx28;Dyrk3;Ehd2;Eif2ak1;Epha4;Hk3;Kif18a;Kif18b;Kif2c;Kifc1;Map4k5;Mapk10;Myo5c;Nek211;Nmnat3;Slc22a5;Stk4;Stradb;Tyro3;Ube2c;Ube2o;Vrk2	0.02
GO:0004672	Molecular_function	protein kinase activity	11	AABR07069282.1;Bub1;Ccl12;Dyrk3;Eif2ak1;Epha4;Mapk10;Mmd;Nek211;Stk4;Stradb	0
GO:0020037	Molecular_function	heme binding	6	Cat;Cyb5a;Cygb;Cyp2j4;Eif2ak1;Nos2	0.01

Table S4. KEGG enrichment analysis of differential genes in LPE vs CON group.

Pathway_id	Pathway name	S gene number	Genes	P-value
ko05168	Herpes simplex infection	8	Ccl12;Ccl5;Ifit1bl;Ifit1;LOC100911733;Mapk10;RT1-N2;Sp140	0
ko00590	Arachidonic acid metabolism	6	Alox12e;Cyp2j4;Cyp2u1;Gpx1;Lta4h;Ptgs2	0
ko04060	Cytokine-cytokine receptor interaction	6	Ccl12;Ccl3;Ccl5;Ccr3;Cx3cr1;Il1rl1	0.01
ko04723	Retrograde endocannabinoid signaling	6	Mapk10;Ptgs2;Syt12	0.03
ko04062	Chemokine signaling pathway	5	Ccl12;Ccl3;Ccl5;Ccr3;Cx3cr1	0.02
ko04621	NOD-like receptor signaling pathway	4	Ccl12;Ccl5;Gvin1;AABR07004992.1;AABR07004993.1;Mapk10	0.01
ko04750	Inflammatory mediator regulation of TRP channels	4	Alox12e;Cyp2j4;Mapk10;Syt12	0.01
ko04726	Serotonergic synapse	4	Alox12e;Cyp2j4;Ptgs2;Syt12	0.02
ko04668	TNF signaling pathway	4	Ccl12;Ccl5;Mapk10;Ptgs2	0.03
ko04923	Regulation of lipolysis in adipocyte	3	Adrb2;Irs1;Ptgs2	0.02
ko04723	Retrograde endocannabinoid signaling	3	Mapk10;Ptgs2;Syt12	0.04

Table S5. KEGG enrichment analysis of differential genes in LPF vs CON group.

Pathway_id	Pathway name	S gene number	Genes	P-value
ko04060	Cytokine-cytokine receptor interaction	10	Ccl9;Ccr3;Csf1;Cxcr2;Il12rb1;Il18rap;Il1r2;Il22ra1;Il2rb;Plekho2	0
ko04080	Neuroactive ligand-receptor interaction	7	C5ar2;Gabra1;Gpr132;Gpr183;LOC102553138;Mcpt8;Ptafr	0.04
ko04610	Complement and coagulation cascades	5	C5ar2;Cfd;Gpr132;Procr;Tgm1	0.02
ko00250	Alanine, aspartate and glutamate metabolism	3	Asns;Fhdcl;RGD1308564	0.02
ko00760	Nicotinate and nicotinamide metabolism	3	Art4;Enpp3;Nmnat3	0.02

Table S6. KEGG enrichment analysis of differential genes in LPF vs LPE group.

Pathway_id	Pathway name	S gene number	Genes	P-value
ko04640	Hematopoietic cell lineage	13	AABR07059308.1;AABR07065782.1;Cd33;Cd3e;Cd59;Il1r1;Kel;RGD1565355;AABR07059308.1;LOC103690020;Siglec5;Tfrc;Tspan8	0
ko04146	Peroxisome	7	Acs11;Cat;Dhrs2;LOC100359515;Nos2;Slc25a37;Zfp831	0.01
ko04920	Adipocytokine signaling pathway	6	AABR07059308.1;Acs11;Irs1;Mapk10;RGD1565355;AABR07059308.1;LOC103690020;Slc2a4	0.01
ko04512	ECM-receptor interaction	6	AABR07059308.1;Muc1;RGD1565355;AABR07059308.1;LOC103690020;Sv2a;Tmeff2;Usp15	0.04
ko04970	Salivary secretion	5	Ifrd2;LOC102549714;Lyc2;Lyz11;Slc12a9	0.04
ko04621	NOD-like receptor signaling pathway	5	AC135826.1;Ccl12;Dyrk3;Mapk10;Trip6	0.04
ko04930	Type II diabetes mellitus	4	Hk3;Irs1;Mapk10;Slc2a4	0.02
ko00860	Porphyrin and chlorophyll metabolism	4	Hmbs;Ppox;Urod;Uros	0
ko00220	Arginine biosynthesis	3	LOC100359515;Nags;Nos2	0.01
ko00910	Nitrogen metabolism	3	Car1;Car3;Car5b	0
ko04975	Fat digestion and absorption	3	AABR07059308.1;Dgat2;RGD1565355;AABR07059308.1;LOC103690020	0.03

Table S8. GO entries with significant enrichment of differential genes in LFP v CON group.

GO ID	GO Term	GO function	Genes	Gene number	P-value
GO 0006351	transcription, DNA-templated	biological_process	ENSRNOG0000001823, ENSRNOG0000050703, ENSRNOG0000004814, ENSRNOG0000020782, ENSRNOG0000004294, ENSRNOG0000000792, ENSRNOG0000011427, ENSRNOG0000002456, ENSRNOG0000016218, ENSRNOG000000018719, ENSRNOG0000001990, ENSRNOG0000005489, ENSRNOG0000000446, ENSRNOG0000000884, ENSRNOG0000002845, ENSRNOG0000001448, ENSRNOG0000001975, ENSRNOG0000001767, ENSRNOG0000002194, ENSRNOG0000002648, ENSRNOG0000002185, ENSRNOG0000000415, ENSRNOG0000000779, ENSRNOG0000001348, ENSRNOG0000002924, ENSRNOG0000003694, ENSRNOG0000002651, ENSRNOG0000005458, ENSRNOG0000056098, ENSRNOG0000001259, ENSRNOG0000001064, ENSRNOG0000001206, ENSRNOG0000000649, ENSRNOG0000001027, ENSRNOG0000003332, ENSRNOG0000002751, ENSRNOG0000001653, ENSRNOG0000001642, ENSRNOG0000001423, ENSRNOG0000000288, ENSRNOG0000001397, ENSRNOG0000000990, ENSRNOG0000004810, ENSRNOG0000001138, ENSRNOG0000002071, ENSRNOG0000000004, 4111, ENSRNOG0000002149, ENSRNOG0000002562, ENSRNOG0000024061, ENSRNOG0000000332, ENSRNOG0000002175, ENSRNOG0000002737, ENSRNOG000000219, ENSRNOG0000000462, ENSRNOG0000000784, ENSRNOG0000001544, ENSRNOG00000007814, ENSRNOG0000002563, ENSRNOG0000004444, ENSRNOG00000012428, ENSRNOG00000001056, ENSRNOG00000021812, ENSRNOG00000014154, ENSRNOG00000005144, ENSRNOG0000000787, ENSRNOG00000000849, ENSRNOG00000046912, ENSRNOG0000001892, ENSRNOG000000038347, ENSRNOG0000000949, ENSRNOG0000002174, ENSRNOG000000001312, ENSRNOG00000001044, ENSRNOG0000000270, ENSRNOG00000004909, ENSRNOG00000004570, ENSRNOG00000000480, ENSRNOG00000018510, ENSRNOG0000001176, ENSRNOG0000001900, ENSRNOG0000000489, ENSRNOG0000001343, ENSRNOG0000000324, ENSRNOG0000000799, ENSRNOG00000001926, ENSRNOG000000001173, ENSRNOG000000001262, ENSRNOG000000020340, ENSRNOG0000001783, ENSRNOG00000001650, ENSRNOG00000017828, ENSRNOG00000000966, ENSRNOG00000000178, ENSRNOG00000000133, ENSRNOG000000001162, ENSRNOG000000001490, ENSRNOG0000000250, ENSRNOG00000006353, ENSRNOG0000000945, ENSRNOG0000000953, ENSRNOG0000002348, ENSRNOG0000005576, ENSRNOG0000001294, ENSRNOG00000000134, ENSRNOG0000000169, ENSRNOG00000000740, ENSRNOG0000002973, ENSRNOG00000001664, ENSRNOG0000000621139, ENSRNOG0000002649, ENSRNOG00000000591, ENSRNOG000000002389, ENSRNOG0000000178, ENSRNOG00000004873, ENSRNOG0000000644, ENSRNOG0000005813, ENSRNOG000000007131, ENSRNOG000000013013, ENSRNOG00000002708, ENSRNOG0000000560, ENSRNOG00000004629, ENSRNOG000000924, ENSRNOG0000014084, ENSRNOG0000002741, ENSRNOG00000011713, ENSRNOG00000001828, ENSRNOG00000049223, ENSRNOG0000002741, ENSRNOG0000000559, ENSRNOG00000010571, ENSRNOG000001444, ENSRNOG0000000951, ENSRNOG0000001302, ENSRNOG0000001234, ENSRNOG0000019422, ENSRNOG000000264, ENSRNOG0000003034, ENSRNOG000000023, ENSRNOG0000001039, ENSRNOG0000000172, ENSRNOG00000013850, ENSRNOG0000001674, ENSRNOG00000003260, ENSRNOG0000001407, ENSRNOG00000003762, ENSRNOG0000000644, ENSRNOG0000000782, ENSRNOG0000001421, ENSRNOG0000001214, ENSRNOG0000002164, ENSRNOG0000001801, ENSRNOG0000000825, ENSRNOG00000003078, ENSRNOG0000002655, ENSRNOG000000550, ENSRNOG0000004558, ENSRNOG00000049142, ENSRNOG0000001263, ENSRNOG0000009248, ENSRNOG00000019706, ENSRNOG00000017940, ENSRNOG0000001802, ENSRNOG00000020744, ENSRNOG0000004269, ENSRNOG000000383, ENSRNOG00000020383, ENSRNOG00000021960, ENSRNOG00000005330, ENSRNOG0000000482	183	0
GO 0044822	poly(A) RNA binding	molecular_function	ENSRNOG0000012630, ENSRNOG0000042557, ENSRNOG0000002489, ENSRNOG0000000857, ENSRNOG0000003030, ENSRNOG0000018243, ENSRNOG0000003510, ENSRNOG0000004099, ENSRNOG00000002433, ENSRNOG00000009636, ENSRNOG000000280, ENSRNOG0000014648, ENSRNOG0000001287, ENSRNOG0000014501, ENSRNOG00000019507, ENSRNOG0000017876, ENSRNOG0000020438, ENSRNOG0000000584, ENSRNOG00000003748, ENSRNOG0000025338, ENSRNOG0000002231, ENSRNOG0000009936, ENSRNOG0000008629, ENSRNOG000002722, ENSRNOG0000006618, ENSRNOG0000005823, ENSRNOG0000000209, ENSRNOG00000021044, ENSRNOG0000027015, ENSRNOG0000058486, ENSRNOG000000983, ENSRNOG0000015259, ENSRNOG0000017904, ENSRNOG0000005446, ENSRNOG0000000429, ENSRNOG0000003010, ENSRNOG000000001448, ENSRNOG000001032, ENSRNOG00000146, ENSRNOG0000018451, ENSRNOG0000000883, ENSRNOG000000392, ENSRNOG0000000000, ENSRNOG0000001602, ENSRNOG00000002844, ENSRNOG0000018333, ENSRNOG0000002542, ENSRNOG00000050786, ENSRNOG00000007098, ENSRNOG000000030563, ENSRNOG0000010217, ENSRNOG0000000000, ENSRNOG00000003091, ENSRNOG0000001799, ENSRNOG0000000964, ENSRNOG0000007943, ENSRNOG0000029878, ENSRNOG0000001421, ENSRNOG0000001552, ENSRNOG0000004986, ENSRNOG0000001140, ENSRNOG00000030721, ENSRNOG00000001084, ENSRNOG0000000171, ENSRNOG0000000086, ENSRNOG0000000064, ENSRNOG000000174, ENSRNOG0000000074, ENSRNOG0000000000, ENSRNOG0000002136, ENSRNOG0000003366, ENSRNOG0000000494, ENSRNOG0000008782, ENSRNOG0000019450, ENSRNOG0000016608, ENSRNOG0000005513, ENSRNOG00000004869, ENSRNOG00000001327, ENSRNOG00000002368, ENSRNOG00000006601, ENSRNOG0000015426, ENSRNOG00000020710, ENSRNOG000000032580, ENSRNOG000000220, ENSRNOG0000003852, ENSRNOG0000002055, ENSRNOG00000009163, ENSRNOG00000005925, ENSRNOG000000005468	94	0.01
GO 0006357	regulation of transcription from RNA polymerase II promoter	biological_process	ENSRNOG0000014191, ENSRNOG0000017960, ENSRNOG00000001632, ENSRNOG00000002959, ENSRNOG00000001592, ENSRNOG00000018902, ENSRNOG0000002291, ENSRNOG00000080871, ENSRNOG0000012419, ENSRNOG00000084170, ENSRNOG0000006045, ENSRNOG0000054497, ENSRNOG00000001428, ENSRNOG00000000770, ENSRNOG00000006187, ENSRNOG0000002734, ENSRNOG00000004132, ENSRNOG0000001512, ENSRNOG00000002049, ENSRNOG000001597, ENSRNOG00000006059, ENSRNOG00000043370, ENSRNOG0000003899, ENSRNOG00000002175, ENSRNOG00000032034, ENSRNOG0000005943, ENSRNOG0000000544, ENSRNOG00000006837, ENSRNOG00000024288, ENSRNOG0000002305, ENSRNOG0000001815, ENSRNOG000000005278, ENSRNOG00000020792, ENSRNOG00000020245, ENSRNOG0000003504, ENSRNOG00000000025, ENSRNOG0000001220, ENSRNOG0000000768, ENSRNOG0000001096, ENSRNOG000000874, ENSRNOG0000000898, ENSRNOG000000111, ENSRNOG0000001428, ENSRNOG000000192, ENSRNOG0000000000, ENSRNOG00000012240, ENSRNOG00000003981, ENSRNOG000000187, ENSRNOG00000013261, ENSRNOG0000004786, ENSRNOG0000001120, ENSRNOG00000001216, ENSRNOG00000006756, ENSRNOG00000006756, ENSRNOG0000000000, ENSRNOG00000004488, ENSRNOG0000002326, ENSRNOG0000000649, ENSRNOG0000002025, ENSRNOG00000020194, ENSRNOG0000003692, ENSRNOG00000004420, ENSRNOG0000000830, ENSRNOG000000019496, ENSRNOG0000005653, ENSRNOG00000007759, ENSRNOG00000049484	66	0.03
GO 0019904	protein domain specific binding	molecular_function	ENSRNOG0000001714, ENSRNOG0000005946, ENSRNOG0000011077, ENSRNOG00000007921, ENSRNOG0000018874, ENSRNOG000000081450, ENSRNOG0000017223, ENSRNOG00000008201, ENSRNOG0000045447, ENSRNOG00000009945, ENSRNOG000001435, ENSRNOG0000055650, ENSRNOG0000005471, ENSRNOG000000051650, ENSRNOG00000046790, ENSRNOG0000005290, ENSRNOG0000029438, ENSRNOG0000001571, ENSRNOG00000006816, ENSRNOG0000000189, ENSRNOG0000018440, ENSRNOG0000004806, ENSRNOG0000022597, ENSRNOG0000001011, ENSRNOG0000015144, ENSRNOG0000004328, ENSRNOG000000099, ENSRNOG00000011584, ENSRNOG0000000897, ENSRNOG00000001436, ENSRNOG0000001827, ENSRNOG00000020249, ENSRNOG0000002432, ENSRNOG0000004132, ENSRNOG0000001013, ENSRNOG00000004518, ENSRNOG00000012271, ENSRNOG00000001182, ENSRNOG00000014420, ENSRNOG00000003195, ENSRNOG0000001582, ENSRNOG00000005983, ENSRNOG00000004392, ENSRNOG0000000270, ENSRNOG000000016770, ENSRNOG00000001173, ENSRNOG000000018378, ENSRNOG0000002509, ENSRNOG00000018176, ENSRNOG0000000048874, ENSRNOG000000019497, ENSRNOG0000000042029	53	0
GO 0004872	protein kinase activity	molecular_function	ENSRNOG00000021048, ENSRNOG00000023668, ENSRNOG00000000411, ENSRNOG00000005808, ENSRNOG00000023521, ENSRNOG0000016913, ENSRNOG0000002892, ENSRNOG00000019482, ENSRNOG0000001424, ENSRNOG0000014013, ENSRNOG00000004676, ENSRNOG000000006213, ENSRNOG0000018416, ENSRNOG00000035981, ENSRNOG00000000831, ENSRNOG00000002791, ENSRNOG000000000242, ENSRNOG0000000791, ENSRNOG0000000410, ENSRNOG0000000180, ENSRNOG00000000958, ENSRNOG0000001968, ENSRNOG0000019097, ENSRNOG00000001143, ENSRNOG000000002894, ENSRNOG0000000600, ENSRNOG0000010756, ENSRNOG0000000444, ENSRNOG00000004518, ENSRNOG00000001275, ENSRNOG00000001182, ENSRNOG00000014420, ENSRNOG00000003195, ENSRNOG0000001582, ENSRNOG00000005983, ENSRNOG00000004392, ENSRNOG0000000000, ENSRNOG00000012240, ENSRNOG00000003981, ENSRNOG000000187, ENSRNOG00000013261, ENSRNOG0000004786, ENSRNOG0000001120, ENSRNOG00000001216, ENSRNOG00000006756, ENSRNOG00000006756, ENSRNOG0000000000, ENSRNOG00000004488, ENSRNOG0000002326, ENSRNOG0000000649, ENSRNOG0000002025, ENSRNOG00000020194, ENSRNOG0000003692, ENSRNOG00000004420, ENSRNOG0000000830, ENSRNOG000000019496, ENSRNOG0000005653, ENSRNOG00000007759, ENSRNOG00000049484	48	0
GO 005126	regulation of cell cycle	biological_process	ENSRNOG00000047741, ENSRNOG00000107151, ENSRNOG00000001996, ENSRNOG000000011375, ENSRNOG00000005428, ENSRNOG00000005402, ENSRNOG0000001304, ENSRNOG00000000211, ENSRNOG0000000011707, ENSRNOG00000026124, ENSRNOG0000002089, ENSRNOG00000047891, ENSRNOG0000002097, ENSRNOG00000004071, ENSRNOG00000004195, ENSRNOG00000016280, ENSRNOG0000010762, ENSRNOG0000001283, ENSRNOG0000000791, ENSRNOG0000000410, ENSRNOG000000180, ENSRNOG00000001968, ENSRNOG0000019097, ENSRNOG00000001143, ENSRNOG000000002894, ENSRNOG0000000600, ENSRNOG0000010756, ENSRNOG0000000444, ENSRNOG00000004518, ENSRNOG00000001275, ENSRNOG00000001182, ENSRNOG00000014420, ENSRNOG00000003195, ENSRNOG0000001582, ENSRNOG00000005983, ENSRNOG00000004392, ENSRNOG0000000000, ENSRNOG00000016612, ENSRNOG0000001227, ENSRNOG000000000485, ENSRNOG0000002393, ENSRNOG00000009940, ENSRNOG0000002330, ENSRNOG00000021780, ENSRNOG000000017991, ENSRNOG00000001194, ENSRNOG00000001194, ENSRNOG0000000462	44	0
GO 0015031	protein transport	biological_process	ENSRNOG00000002633, ENSRNOG0000018840, ENSRNOG00000004560, ENSRNOG00000000879, ENSRNOG00000000713, ENSRNOG000000032486, ENSRNOG0000019959, ENSRNOG0000018839, ENSRNOG00000060982, ENSRNOG0000010842, ENSRNOG000001851, ENSRNOG0000016531, ENSRNOG0000007992, ENSRNOG0000010171, ENSRNOG00000006545, ENSRNOG0000000822, ENSRNOG0000017235, ENSRNOG000000043182, ENSRNOG000002291, ENSRNOG0000005464, ENSRNOG0000005662, ENSRNOG00000018285, ENSRNOG0000000656, ENSRNOG00000008943, ENSRNOG0000013213, ENSRNOG00000009299, ENSRNOG00000014213, ENSRNOG00000000469, ENSRNOG0000000014152, ENSRNOG00000000759, ENSRNOG00000004603, ENSRNOG0000019587, ENSRNOG00000019730, ENSRNOG000000018385, ENSRNOG00000191113, ENSRNOG00000004819	40	0
GO 0005911	cell-cell junction	cellular_component	ENSRNOG00000004414, ENSRNOG0000016995, ENSRNOG00000002919, ENSRNOG0000011133, ENSRNOG00000005504, ENSRNOG0000000502, ENSRNOG00000000814, ENSRNOG0000011875, ENSRNOG00000001259, ENSRNOG0000001928, ENSRNOG0000003990, ENSRNOG00000003659, ENSRNOG0000002838, ENSRNOG00000004181, ENSRNOG00000002841, ENSRNOG0000002345, ENSRNOG0000002425, ENSRNOG0000001350, ENSRNOG000000019265, ENSRNOG0000015518, ENSRNOG00000005642, ENSRNOG0000022694, ENSRNOG0000045698, ENSRNOG000000016724, ENSRNOG00000030418, ENSRNOG00000047605, ENSRNOG000000012991, ENSRNOG000000045811, ENSRNOG00000004873, ENSRNOG0000016408, ENSRNOG000000021182	31	0
GO 0030425	dendrite	cellular_component	ENSRNOG000000011751, ENSRNOG00000049768, ENSRNOG0000005171, ENSRNOG000000007894, ENSRNOG00000007031, ENSRNOG00000021410, ENSRNOG00000045771, ENSRNOG000000000281, ENSRNOG00000000644, ENSRNOG000000021954, ENSRNOG0000001275, ENSRNOG00000000832, ENSRNOG0000000552, ENSRNOG0000001839, ENSRNOG00000010103, ENSRNOG0000000152, ENSRNOG000000002502, ENSRNOG000000002670, ENSRNOG00000012573, ENSRNOG00000011847, ENSRNOG00000020225, ENSRNOG00000013101, ENSRNOG000000002303, ENSRNOG00000014668	25	0
GO 0030426	growth cone	cellular_component	ENSRNOG00000002014, ENSRNOG00000014289, ENSRNOG00000003808, ENSRNOG000001448, ENSRNOG00000001274, ENSRNOG000000042753, ENSRNOG000001700, ENSRNOG00000001528, ENSRNOG00000001744, ENSRNOG0000003920, ENSRNOG0000011058, ENSRNOG0000011534, ENSRNOG0000002914, ENSRNOG0000002561, ENSRNOG0000010389, ENSRNOG00000003261, ENSRNOG00000002799, ENSRNOG00000001419, ENSRNOG00000001194, ENSRNOG0000000462	23	0
GO 0042981	regulation of apoptotic process	biological_process	ENSRNOG00000051612, ENSRNOG00000008145, ENSRNOG00000001482, ENSRNOG0000000148, ENSRNOG0000003970, ENSRNOG0000001651, ENSRNOG0000014997, ENSRNOG00000011383, ENSRNOG000000002418, ENSRNOG00000004685, ENSRNOG00000008472, ENSRNOG00000000851, ENSRNOG0000001353, ENSRNOG00000004312, ENSRNOG00000002147, ENSRNOG0000000596, ENSRNOG000000015440, ENSRNOG000000000412, ENSRNOG000000005520, ENSRNOG0000005810, ENSRNOG0000000490	21	0.04
GO 0051091	positive regulation of sequence-specific DNA binding transcription factor activity	biological_process	ENSRNOG00000024172, ENSRNOG0000000190, ENSRNOG00000021456, ENSRNOG00000009664, ENSRNOG00000005244, ENSRNOG0000004787, ENSRNOG0000000838, ENSRNOG00000004473, ENSRNOG00000000882, ENSRNOG00000019968, ENSRNOG00000005997, ENSRNOG00000021025, ENSRNOG00000020555, ENSRNOG00000049496, ENSRNOG00000055917, ENSRNOG00000006642, ENSRNOG0000000816, ENSRNOG00000002151, ENSRNOG000000021962	19	0.01
GO 0060076	excitatory synapse	cellular_component	ENSRNOG00000023730, ENSRNOG00000047014, ENSRNOG000000008426, ENSRNOG000000018422, ENSRNOG00000003951, ENSRNOG00000020279, ENSRNOG00000020840, ENSRNOG00000001831, ENSRNOG0000015430, ENSRNOG00000001470, ENSRNOG0000003206, ENSRNOG000001156, ENSRNOG0000000164, ENSRNOG000001782, ENSRNOG0000003178, ENSRNOG00000040266, ENSRNOG00000001397, ENSRNOG00000000099, ENSRNOG00000002585, ENSRNOG0000001863, ENSRNOG0000000887, ENSRNOG00000001280, ENSRNOG0000001199, ENSRNOG00000004109, ENSRNOG0000000849, ENSRNOG0000000410, ENSRNOG000000002502, ENSRNOG0000001366, ENSRNOG0000000608, ENSRNOG000001353, ENSRNOG00000001257, ENSRNOG00000007034, ENSRNOG00000016963, ENSRNOG00000014693	17	0
GO 0042787	protein ubiquitination involved in ubiquitin-dependent protein catabolic process	biological_process	ENSRNOG00000004142, ENSRNOG0000002585, ENSRNOG0000001863, ENSRNOG0000000887, ENSRNOG0000001280, ENSRNOG00000015143, ENSRNOG000000021, ENSRNOG00000013718, ENSRNOG000000012592, ENSRNOG0000001938, ENSRNOG0000005546, ENSRNOG00000001936, ENSRNOG00000010827, ENSRNOG0000000004781	16	0
GO 0050885	neuromuscular process controlling balance	biological_process	ENSRNOG00000002229, ENSRNOG0000018602, ENSRNOG0000002827, ENSRNOG00000047179, ENSRNOG000000004688, ENSRNOG00000025589, ENSRNOG00000026953, ENSRNOG00000018842, ENSRNOG0000005837, ENSRNOG00000018784, ENSRNOG0000019212, ENSRNOG0000002637, ENSRNOG00000008829, ENSRNOG00000051671, ENSRNOG0000002377	15	0
GO 0045773	positive regulation of axon extension	biological_process	ENSRNOG0000016047, ENSRNOG0000018150, ENSRNOG0000011302, ENSRNOG000001104, ENSRNOG0000010975, ENSRNOG00000099614, ENSRNOG000001470, ENSRNOG0000017428, ENSRNOG0000014288, ENSRNOG0000007887, ENSRNOG00000050714, ENSRNOG00000011295, ENSRNOG0000000174, ENSRNOG00000006067	14	0
GO 0006511	ubiquitin-dependent protein catabolic process	biological_process	ENSRNOG00000002772, ENSRNOG00000005189, ENSRNOG00000026880, ENSRNOG0000002771, ENSRNOG00000000502, ENSRNOG0000009049, ENSRNOG0000004240, ENSRNOG00000002579, ENS		

Table S10. KEGG enrichment analysis of differential genes in LPE vs CON group.

pathway_id	pathway_name	Genes	S gene number	P-value
4514	Cell adhesion molecules (CAMs)	ENSRNCG0000053332,ENSRNCG0000018870,ENSRNCG0000029399,ENSRNCG0000038112,ENSRNCG0000013503,ENSRNCG000001989,ENSRNCG000004438,ENSRNCG0000013481,ENSRNCG0000029798,ENSRNCG0000010535,ENSRNCG000001852,ENSRNCG0000019424,ENSRNCG0000021103,ENSRNCG0000023720,ENSRNCG0000045771,ENSRNCG0000020129,ENSRNCG0000016085,ENSRNCG000001103,ENSRNCG0000011803,ENSRNCG000008089,ENSRNCG0000047574,ENSRNCG0000013515,ENSRNCG0000026266,ENSRNCG0000028992,ENSRNCG0000016221,ENSRNCG0000032517,ENSRNCG000003365,ENSRNCG0000015430,ENSRNCG0000021023,ENSRNCG0000009219,ENSRNCG0000020277,ENSRNCG0000011700,ENSRNCG0000017193,ENSRNCG0000030515,ENSRNCG0000011927,ENSRNCG0000056643,ENSRNCG000001525,ENSRNCG0000018778,ENSRNCG0000019418,ENSRNCG0000013694,ENSRNCG0000050220,ENSRNCG0000031136,ENSRNCG0000033496,ENSRNCG0000033490,ENSRNCG0000018798,ENSRNCG0000019869,ENSRNCG0000021410,ENSRNCG000004067,ENSRNCG0000024243,ENSRNCG0000042078,ENSRNCG0000021243,ENSRNCG0000032576,ENSRNCG0000027992,ENSRNCG0000040076,ENSRNCG0000030840,ENSRNCG0000029556,ENSRNCG0000015562,ENSRNCG0000061230,ENSRNCG0000047002,ENSRNCG0000048277,ENSRNCG0000048036,ENSRNCG0000017918,ENSRNCG0000018668	63	0
4141	Protein processing in endoplasmic reticulum	ENSRNCG0000048509,ENSRNCG0000006619,ENSRNCG0000014165,ENSRNCG0000020340,ENSRNCG0000011148,ENSRNCG0000011618,ENSRNCG0000060107,ENSRNCG0000021202,ENSRNCG0000011922,ENSRNCG0000015173,ENSRNCG0000011066,ENSRNCG000005551,ENSRNCG0000058543,ENSRNCG0000015226,ENSRNCG0000015699,ENSRNCG0000018416,ENSRNCG0000010041,ENSRNCG000003649,ENSRNCG000005787,ENSRNCG000004794,ENSRNCG000007283,ENSRNCG0000011360,ENSRNCG0000013469,ENSRNCG000004882,ENSRNCG000009090,ENSRNCG0000045623,ENSRNCG0000045740,ENSRNCG0000010628,ENSRNCG000002251,ENSRNCG0000015368,ENSRNCG0000042523,ENSRNCG0000016137,ENSRNCG0000012559,ENSRNCG0000000841,ENSRNCG0000019724,ENSRNCG0000023278,ENSRNCG0000016251,ENSRNCG0000025781,ENSRNCG0000025689,ENSRNCG0000080604,ENSRNCG000008488,ENSRNCG0000025570,ENSRNCG0000034015,ENSRNCG0000000611,ENSRNCG0000021824,ENSRNCG0000055209,ENSRNCG000003099,ENSRNCG000001640,ENSRNCG0000051243,ENSRNCG0000014872,ENSRNCG0000007492,ENSRNCG0000007753,ENSRNCG0000009042,ENSRNCG0000019749,ENSRNCG0000052637,ENSRNCG0000013741,ENSRNCG0000047394,ENSRNCG0000009057,ENSRNCG0000051408,ENSRNCG000000557,ENSRNCG000004621,ENSRNCG000005502,ENSRNCG0000008427,ENSRNCG0000015079,ENSRNCG0000020239,ENSRNCG000001803,ENSRNCG0000015051,ENSRNCG000005418,ENSRNCG0000044544,ENSRNCG0000055365,ENSRNCG0000017087,ENSRNCG0000012392,ENSRNCG0000018796,ENSRNCG0000062275,ENSRNCG0000080080,ENSRNCG000001682,ENSRNCG0000090987,ENSRNCG0000019282,ENSRNCG000003988,ENSRNCG0000017781,ENSRNCG000006241,ENSRNCG000009028,ENSRNCG0000012503,ENSRNCG0000017876,ENSRNCG0000011194,ENSRNCG0000047175,ENSRNCG0000000130,ENSRNCG0000026985,ENSRNCG0000019798,ENSRNCG000007029,ENSRNCG0000016603,ENSRNCG0000053172,ENSRNCG0000030329,ENSRNCG0000034242,ENSRNCG0000026005,ENSRNCG0000046345,ENSRNCG0000014901,ENSRNCG0000007299,ENSRNCG0000033443,ENSRNCG0000007141,ENSRNCG0000008830,ENSRNCG000005108,ENSRNCG0000009092	103	0
3015	mRNA surveillance pathway	ENSRNCG0000004827,ENSRNCG0000009891,ENSRNCG0000012455,ENSRNCG0000050211,ENSRNCG0000009716,ENSRNCG0000018194,ENSRNCG0000027962,ENSRNCG0000060335,ENSRNCG0000002102,ENSRNCG0000014984,ENSRNCG0000051104,ENSRNCG0000019590,ENSRNCG0000019450,ENSRNCG0000016698,ENSRNCG000003041,ENSRNCG0000004061,ENSRNCG0000013491,ENSRNCG0000042983,ENSRNCG0000030705,ENSRNCG0000013533,ENSRNCG0000014533,ENSRNCG0000005733,ENSRNCG0000022289,ENSRNCG0000012946,ENSRNCG0000013336,ENSRNCG0000048817,ENSRNCG0000039994,ENSRNCG0000058386,ENSRNCG000005927,ENSRNCG0000023593,ENSRNCG0000061526,ENSRNCG0000025909,ENSRNCG0000008822,ENSRNCG000004806,ENSRNCG0000019712,ENSRNCG0000022770,ENSRNCG0000050289,ENSRNCG0000060206,ENSRNCG0000024507,ENSRNCG000001382,ENSRNCG0000020134,ENSRNCG0000047143,ENSRNCG0000020771,ENSRNCG0000014531,ENSRNCG0000012260,ENSRNCG0000022877,ENSRNCG0000006261,ENSRNCG0000047386,ENSRNCG0000043473	49	0
4728	Dopaminergic synapse	ENSRNCG0000001893,ENSRNCG0000018851,ENSRNCG0000016311,ENSRNCG0000021025,ENSRNCG000001409,ENSRNCG0000014448,ENSRNCG0000018337,ENSRNCG0000020417,ENSRNCG0000039562,ENSRNCG0000053122,ENSRNCG0000011282,ENSRNCG0000016638,ENSRNCG0000050070,ENSRNCG0000025040,ENSRNCG0000019174,ENSRNCG0000053338,ENSRNCG0000028404,ENSRNCG0000000668,ENSRNCG0000049452,ENSRNCG000002175,ENSRNCG0000050309,ENSRNCG000004327,ENSRNCG0000007080,ENSRNCG000005369,ENSRNCG000005299,ENSRNCG0000040456,ENSRNCG0000007645,ENSRNCG0000010397,ENSRNCG0000011158,ENSRNCG0000001658,ENSRNCG0000022999,ENSRNCG000002848,ENSRNCG0000052707,ENSRNCG0000058202,ENSRNCG0000016849,ENSRNCG0000045816,ENSRNCG0000029778,ENSRNCG000004680,ENSRNCG0000008467,ENSRNCG0000007682,ENSRNCG0000054204	42	0
4144	Endocytosis	ENSRNCG0000017612,ENSRNCG0000026212,ENSRNCG0000008331,ENSRNCG0000043150,ENSRNCG0000024345,ENSRNCG0000010502,ENSRNCG0000028255,ENSRNCG0000060123,ENSRNCG0000024602,ENSRNCG0000011394,ENSRNCG0000055527,ENSRNCG0000000048,ENSRNCG0000026880,ENSRNCG0000008614,ENSRNCG0000004382,ENSRNCG0000016374,ENSRNCG0000027761,ENSRNCG0000011302,ENSRNCG0000012379,ENSRNCG0000014970,ENSRNCG0000016539,ENSRNCG0000019776,ENSRNCG0000013381,ENSRNCG0000015269,ENSRNCG0000004140,ENSRNCG0000057556,ENSRNCG0000004282,ENSRNCG0000033477,ENSRNCG0000014429,ENSRNCG0000023007,ENSRNCG0000017383,ENSRNCG0000017029,ENSRNCG0000024566,ENSRNCG0000043328,ENSRNCG0000010274,ENSRNCG0000001190,ENSRNCG0000017746,ENSRNCG0000058975,ENSRNCG0000021010,ENSRNCG00000108471,ENSRNCG0000014083,ENSRNCG0000020293,ENSRNCG0000019973,ENSRNCG0000016818,ENSRNCG0000014997,ENSRNCG0000056964,ENSRNCG0000014127,ENSRNCG0000054033,ENSRNCG0000037477,ENSRNCG0000011391,ENSRNCG0000014806,ENSRNCG0000026527,ENSRNCG000007806,ENSRNCG0000058663,ENSRNCG0000015516,ENSRNCG0000013064,ENSRNCG0000060229,ENSRNCG0000057626,ENSRNCG0000016509,ENSRNCG000002844,ENSRNCG0000017467,ENSRNCG0000050406,ENSRNCG0000036880,ENSRNCG0000021051,ENSRNCG0000058733,ENSRNCG0000010361,ENSRNCG0000011040,ENSRNCG0000006472,ENSRNCG0000007272,ENSRNCG0000012822,ENSRNCG0000010299,ENSRNCG0000049127,ENSRNCG000001090,ENSRNCG0000052887,ENSRNCG0000047235,ENSRNCG0000042086,ENSRNCG0000013089,ENSRNCG0000019776,ENSRNCG0000013381,ENSRNCG0000015269,ENSRNCG0000004140,ENSRNCG0000057556,ENSRNCG0000004282,ENSRNCG0000033477,ENSRNCG0000017788,ENSRNCG000005703,ENSRNCG0000009096,ENSRNCG0000008673,ENSRNCG0000027183,ENSRNCG0000020515,ENSRNCG0000020331,ENSRNCG0000021403,ENSRNCG0000061270,ENSRNCG0000048699,ENSRNCG0000061519,ENSRNCG0000060350,ENSRNCG0000006975,ENSRNCG0000044805,ENSRNCG0000012623,ENSRNCG0000020281,ENSRNCG0000059322,ENSRNCG000003923,ENSRNCG0000020577,ENSRNCG0000019729,ENSRNCG0000025884,ENSRNCG0000016444,ENSRNCG0000014135,ENSRNCG0000010971,ENSRNCG000004036,ENSRNCG0000018462,ENSRNCG0000046741,ENSRNCG000002669,ENSRNCG0000060550,ENSRNCG0000020770,ENSRNCG0000051744,ENSRNCG0000038035,ENSRNCG0000047088,ENSRNCG0000022307,ENSRNCG0000012630,ENSRNCG0000007552,ENSRNCG0000002001,ENSRNCG0000011453,ENSRNCG0000016212,ENSRNCG000007515,ENSRNCG0000021434,ENSRNCG0000007485,ENSRNCG0000008994,ENSRNCG000004185,ENSRNCG0000006663,ENSRNCG000003428,ENSRNCG000005626,ENSRNCG0000012654,ENSRNCG0000051065,ENSRNCG0000017791,ENSRNCG0000032026,ENSRNCG0000031364,ENSRNCG0000026582,ENSRNCG0000009523,ENSRNCG0000012764,ENSRNCG0000011421,ENSRNCG0000043503,ENSRNCG0000006888	142	0
5012	Parkinson's disease	ENSRNCG0000004048,ENSRNCG0000007235,ENSRNCG0000049609,ENSRNCG0000029707,ENSRNCG000001862,ENSRNCG0000031979,ENSRNCG000001596,ENSRNCG0000010427,ENSRNCG0000001302,ENSRNCG0000019164,ENSRNCG0000031053,ENSRNCG0000008022,ENSRNCG0000062377,ENSRNCG0000015511,ENSRNCG0000031033,ENSRNCG0000008182,ENSRNCG0000010467,ENSRNCG000002840,ENSRNCG000005254,ENSRNCG000003299,ENSRNCG0000029971,ENSRNCG0000012902,ENSRNCG0000029042,ENSRNCG0000020533,ENSRNCG0000014399,ENSRNCG0000008656,ENSRNCG0000015385,ENSRNCG0000021123,ENSRNCG0000033615,ENSRNCG0000018045,ENSRNCG0000020912	31	0
4721	Synaptic vesicle cycle	ENSRNCG0000006426,ENSRNCG0000008237,ENSRNCG0000003905,ENSRNCG0000018452,ENSRNCG000003383,ENSRNCG0000018217,ENSRNCG000000936,ENSRNCG0000009994,ENSRNCG0000017333,ENSRNCG0000001709,ENSRNCG000007649,ENSRNCG0000026243,ENSRNCG0000026432,ENSRNCG0000006037,ENSRNCG0000004291,ENSRNCG0000017678,ENSRNCG000000105,ENSRNCG0000011000,ENSRNCG0000015420,ENSRNCG0000017506,ENSRNCG0000006989,ENSRNCG0000061543,ENSRNCG0000019318,ENSRNCG0000014635,ENSRNCG0000019193	25	0
3040	Spliceosome	ENSRNCG0000059764,ENSRNCG0000020438,ENSRNCG0000052968,ENSRNCG0000005218,ENSRNCG0000016737,ENSRNCG0000002612,ENSRNCG0000059362,ENSRNCG0000013847,ENSRNCG0000049128,ENSRNCG0000024497,ENSRNCG0000015914,ENSRNCG0000036839,ENSRNCG0000029068,ENSRNCG0000019817,ENSRNCG0000031127,ENSRNCG0000009960,ENSRNCG0000018849,ENSRNCG0000061039,ENSRNCG000003495,ENSRNCG0000012051,ENSRNCG0000020763,ENSRNCG0000031440,ENSRNCG0000005951,ENSRNCG0000034206,ENSRNCG000005387,ENSRNCG0000016919,ENSRNCG000002874,ENSRNCG0000008066,ENSRNCG000001783,ENSRNCG0000021986,ENSRNCG0000017724,ENSRNCG0000011175,ENSRNCG0000007921,ENSRNCG0000012323,ENSRNCG0000051193,ENSRNCG0000031479,ENSRNCG0000036852,ENSRNCG0000054391,ENSRNCG0000020946,ENSRNCG0000016016,ENSRNCG0000018685,ENSRNCG0000052539,ENSRNCG0000054355,ENSRNCG0000012021,ENSRNCG00000909156,ENSRNCG000009166,ENSRNCG0000051498,ENSRNCG0000042062,ENSRNCG0000009474,ENSRNCG000001170,ENSRNCG0000019507,ENSRNCG0000012157,ENSRNCG0000057759,ENSRNCG0000017586,ENSRNCG0000013962,ENSRNCG0000018997,ENSRNCG0000039876,ENSRNCG0000017838,ENSRNCG0000045459,ENSRNCG0000013516,ENSRNCG0000033790,ENSRNCG0000017416,ENSRNCG0000009639,ENSRNCG0000003844,ENSRNCG0000020772,ENSRNCG0000014619,ENSRNCG0000059347,ENSRNCG000002871,ENSRNCG0000020412,ENSRNCG0000052111,ENSRNCG0000018119,ENSRNCG0000012406,ENSRNCG0000012138,ENSRNCG000005258,ENSRNCG0000048758,ENSRNCG0000040045,ENSRNCG0000007992,ENSRNCG000002433,ENSRNCG0000008912	79	0
4530	Tight junction	ENSRNCG0000024322,ENSRNCG0000060061,ENSRNCG0000002625,ENSRNCG0000020667,ENSRNCG0000058842,ENSRNCG0000080801,ENSRNCG0000030113,ENSRNCG0000004650,ENSRNCG0000019152,ENSRNCG0000020501,ENSRNCG000008917,ENSRNCG000005434,ENSRNCG000002538,ENSRNCG000005323,ENSRNCG0000014928,ENSRNCG0000000042,ENSRNCG0000033575,ENSRNCG0000037967,ENSRNCG0000017117,ENSRNCG0000013962,ENSRNCG0000018997,ENSRNCG0000052113,ENSRNCG0000008788,ENSRNCG0000056283,ENSRNCG0000049695,ENSRNCG000004834,ENSRNCG0000032901,ENSRNCG0000014104,ENSRNCG0000012346,ENSRNCG0000055371,ENSRNCG0000013351,ENSRNCG0000014867,ENSRNCG0000016724,ENSRNCG0000006911,ENSRNCG0000054834,ENSRNCG0000010593,ENSRNCG0000014765,ENSRNCG0000033653,ENSRNCG000003948,ENSRNCG0000055480,ENSRNCG000000955,ENSRNCG0000053725,ENSRNCG0000016189	43	0
4360	Axon guidance	ENSRNCG0000059840,ENSRNCG0000006526,ENSRNCG0000004603,ENSRNCG0000006802,ENSRNCG0000049385,ENSRNCG0000017003,ENSRNCG0000003840,ENSRNCG0000013213,ENSRNCG0000039415,ENSRNCG0000030016,ENSRNCG000007865,ENSRNCG0000014650,ENSRNCG000004781,ENSRNCG0000007970,ENSRNCG0000006784,ENSRNCG000006509,ENSRNCG0000013072,ENSRNCG0000037340,ENSRNCG0000007030,ENSRNCG0000007377,ENSRNCG0000014648,ENSRNCG000002730,ENSRNCG0000054548,ENSRNCG0000066877,ENSRNCG0000028627,ENSRNCG0000027582,ENSRNCG0000007324,ENSRNCG0000020698,ENSRNCG0000007882,ENSRNCG0000021101,ENSRNCG0000029598,ENSRNCG0000029510,ENSRNCG000007687,ENSRNCG0000052509,ENSRNCG000003878,ENSRNCG0000031801,ENSRNCG000005573,ENSRNCG0000042607,ENSRNCG0000027463,ENSRNCG0000011858,ENSRNCG0000006733,ENSRNCG0000008100,ENSRNCG0000026065,ENSRNCG0000045998,ENSRNCG0000014367	45	0
5130	Pathogenic Escherichia coli infection	ENSRNCG0000047505,ENSRNCG0000059673,ENSRNCG0000016544,ENSRNCG0000028090,ENSRNCG0000014289,ENSRNCG00000060728,ENSRNCG0000010964,ENSRNCG0000020227,ENSRNCG0000003597,ENSRNCG0000028062,ENSRNCG0000017445,ENSRNCG0000010899,ENSRNCG0000053468,ENSRNCG0000008664	14	0
4114	Oocyte meiosis	ENSRNCG0000005828,ENSRNCG0000052080,ENSRNCG000003139,ENSRNCG000003657,ENSRNCG0000049768,ENSRNCG0000011589,ENSRNCG0000019503,ENSRNCG000001316,ENSRNCG0000006632,ENSRNCG0000016965,ENSRNCG000005447,ENSRNCG000004395,ENSRNCG0000011339,ENSRNCG0000053141,ENSRNCG0000043210,ENSRNCG000002229,ENSRNCG0000007104,ENSRNCG0000011295,ENSRNCG000009882,ENSRNCG0000036666,ENSRNCG000005043,ENSRNCG0000020689,ENSRNCG0000027066,ENSRNCG0000013194,ENSRNCG0000059479,ENSRNCG0000032150,ENSRNCG000003721,ENSRNCG0000010176,ENSRNCG000005310,ENSRNCG0000015101,ENSRNCG000001360,ENSRNCG000003169,ENSRNCG000004612,ENSRNCG0000016863,ENSRNCG0000010274,ENSRNCG0000053339,ENSRNCG0000054418,ENSRNCG000003767,ENSRNCG000001269,ENSRNCG000004060,ENSRNCG0000052795,ENSRNCG0000017640,ENSRNCG0000018712,ENSRNCG0000019161,ENSRNCG0000054757,ENSRNCG0000020401,ENSRNCG0000032570,ENSRNCG0000019721,ENSRNCG0000057321,ENSRNCG0000004890,ENSRNCG0000060561	51	0
3013	RNA transport	ENSRNCG000003673,ENSRNCG0000030628,ENSRNCG000001456,ENSRNCG0000034168,ENSRNCG0000012644,ENSRNCG0000017447,ENSRNCG000003325,ENSRNCG0000019085,ENSRNCG0000015332,ENSRNCG0000012046,ENSRNCG0000020330,ENSRNCG0000013423,ENSRNCG0000029038,ENSRNCG0000055790,ENSRNCG0000020457,ENSRNCG0000013977,ENSRNCG0000006467,ENSRNCG000005890,ENSRNCG0000015274,ENSRNCG0000015722,ENSRNCG0000019746,ENSRNCG0000014999,ENSRNCG0000010852,ENSRNCG000000796,ENSRNCG000003424,ENSRNCG000004588,ENSRNCG000001815,ENSRNCG0000060459,ENSRNCG0000031789,ENSRNCG0000058580,ENSRNCG000003723,ENSRNCG000001421,ENSRNCG0000016459,ENSRNCG0000020477,ENSRNCG000005390,ENSRNCG0000055236,ENSRNCG0000007568,ENSRNCG0000010117,ENSRNCG0000032840,ENSRNCG0000030247,ENSRNCG0000057550,ENSRNCG0000058327,ENSRNCG000001253,ENSRNCG0000042458,ENSRNCG0000048282,ENSRNCG000003979,ENSRNCG0000018761,ENSRNCG0000010218,ENSRNCG0000011876,ENSRNCG0000057464,ENSRNCG0000023393,ENSRNCG0000013746,ENSRNCG0000009275,ENSRNCG0000018564	54	0
4510	Focal adhesion	ENSRNCG0000050767,ENSRNCG0000038211,ENSRNCG0000009675,ENSRNCG0000014530,ENSRNCG0000019831,ENSRNCG0000014204,ENSRNCG0000009598,ENSRNCG0000015713,ENSRNCG0000017765,ENSRNCG000002529,ENSRNCG0000053200,ENSRNCG0000053203,ENSRNCG0000033736,ENSRNCG0000024703,ENSRNCG0000002841,ENSRNCG0000014420,ENSRNCG0000059166,ENSRNCG0000055305,ENSRNCG0000014363,ENSRNCG0000007307,ENSRNCG0000056038,ENSRNCG0000017939,ENSRNCG0000029738,ENSRNCG0000042029	24	0
5033	Nicotine addiction	ENSRNCG0000016385,ENSRNCG0000010803,ENSRNCG0000007581,ENSRNCG0000014066,ENSRNCG000003380,ENSRNCG0000046756,ENSRNCG0000002336,ENSRNCG0000028641,ENSRNCG0000020650,ENSRNCG0000015393,ENSRNCG0000053285,ENSRNCG0000039837,ENSRNCG0000008142,ENSRNCG00		

4512	ECM-receptor interaction	ENSRNOG0000053691,ENSRNOG0000033581,ENSRNOG0000090209,ENSRNOG0000014021,ENSRNOG0000008034,ENSRNOG0000046981,ENSRNOG0000058645, ENSRNOG0000021855,ENSRNOG0000025959,ENSRNOG0000052916,ENSRNOG0000031782,ENSRNOG0000011160,ENSRNOG0000046818,ENSRNOG0000016623, ENSRNOG0000016058,ENSRNOG0000021182,ENSRNOG0000002667,ENSRNOG0000011562,ENSRNOG000001254,ENSRNOG0000004248,ENSRNOG0000020205, ENSRNOG0000059903,ENSRNOG0000054863,ENSRNOG0000025793,ENSRNOG0000020864,ENSRNOG0000096649,ENSRNOG000000618,ENSRNOG0000009821, ENSRNOG0000013618,ENSRNOG0000009049,ENSRNOG0000005678,ENSRNOG0000010932,ENSRNOG0000017237,ENSRNOG0000011491,ENSRNOG0000012058, ENSRNOG0000020603,ENSRNOG0000009872,ENSRNOG0000021041,ENSRNOG0000006600,ENSRNOG0000012471,ENSRNOG00000008678,ENSRNOG0000025581, ENSRNOG0000009944,ENSRNOG0000005932,ENSRNOG0000002734,ENSRNOG0000021441	746	0
4330	Notch signaling pathway	ENSRNOG00000013013,ENSRNOG00000011004,ENSRNOG0000013239,ENSRNOG0000001432,ENSRNOG0000052025,ENSRNOG0000019338,ENSRNOG00000005879, ENSRNOG0000010044,ENSRNOG0000020867,ENSRNOG0000003268,ENSRNOG0000047296,ENSRNOG0000006770,ENSRNOG0000010124,ENSRNOG0000020848, ENSRNOG0000005882,ENSRNOG0000018719,ENSRNOG00000050848,ENSRNOG0000019154,ENSRNOG0000013364,ENSRNOG0000000806,ENSRNOG0000020753, ENSRNOG0000018356,ENSRNOG0000005129	23	0
5414	Dilated cardiomyopathy (DCM)	ENSRNOG0000058882,ENSRNOG0000062252,ENSRNOG0000011058,ENSRNOG0000005580,ENSRNOG0000018960,ENSRNOG00000003336,ENSRNOG00000032994, ENSRNOG0000031287,ENSRNOG0000004518,ENSRNOG0000020272,ENSRNOG0000015346,ENSRNOG0000033531,ENSRNOG0000003262,ENSRNOG0000057852, ENSRNOG0000003245,ENSRNOG0000012362,ENSRNOG00000056257,ENSRNOG0000018184,ENSRNOG0000011754,ENSRNOG00000046366,ENSRNOG0000007516, ENSRNOG0000006226,ENSRNOG0000010107,ENSRNOG0000019400,ENSRNOG0000009029,ENSRNOG0000000536,ENSRNOG0000058068,ENSRNOG0000019638	28	0
4120	Ubiquitin mediated proteolysis	ENSRNOG0000013718,ENSRNOG0000020088,ENSRNOG0000059876,ENSRNOG0000016963,ENSRNOG0000012671,ENSRNOG0000051671,ENSRNOG0000013281, ENSRNOG0000005157,ENSRNOG0000024479,ENSRNOG0000006221,ENSRNOG0000012333,ENSRNOG000001352,ENSRNOG0000017907,ENSRNOG0000009566, ENSRNOG0000001878,ENSRNOG0000013809,ENSRNOG0000002214,ENSRNOG0000029441,ENSRNOG00000056462,ENSRNOG0000027514,ENSRNOG00000061040, ENSRNOG0000016541,ENSRNOG0000017564,ENSRNOG0000020897,ENSRNOG0000013252,ENSRNOG0000004306,ENSRNOG0000014833,ENSRNOG00000042492, ENSRNOG0000007304,ENSRNOG0000010303,ENSRNOG0000027191,ENSRNOG0000006335,ENSRNOG0000014373,ENSRNOG0000018515,ENSRNOG0000004686, ENSRNOG0000023668,ENSRNOG0000010515,ENSRNOG0000017294,ENSRNOG0000018363,ENSRNOG0000020878,ENSRNOG0000011007,ENSRNOG00000002875, ENSRNOG0000010653,ENSRNOG0000010889,ENSRNOG0000016262,ENSRNOG00000543,ENSRNOG0000015758,ENSRNOG000001048205, ENSRNOG0000034075,ENSRNOG0000005371,ENSRNOG0000060542,ENSRNOG0000016877,ENSRNOG0000020791,ENSRNOG0000005357,ENSRNOG0000005081, ENSRNOG0000014529,ENSRNOG0000010479,ENSRNOG0000052513,ENSRNOG0000024535,ENSRNOG0000050106,ENSRNOG0000057706,ENSRNOG0000054096, ENSRNOG0000026286,ENSRNOG0000058053,ENSRNOG0000018372,ENSRNOG0000015552	67	0
4727	GABAergic synapse	ENSRNOG0000009019,ENSRNOG0000018111,ENSRNOG0000010881,ENSRNOG0000057620,ENSRNOG000006527,ENSRNOG0000014819,ENSRNOG00000208366, ENSRNOG0000019262,ENSRNOG0000032659,ENSRNOG0000019484,ENSRNOG0000013368	11	0
4724	Glutamatergic synapse	ENSRNOG0000033942,ENSRNOG0000008992,ENSRNOG0000050206,ENSRNOG0000016196,ENSRNOG0000016163,ENSRNOG0000052296,ENSRNOG0000019207, ENSRNOG000000368,ENSRNOG0000014302,ENSRNOG0000020426,ENSRNOG0000020225	11	0
4261	Adrenergic signaling in cardiomyocytes	ENSRNOG0000011501,ENSRNOG00000046353,ENSRNOG0000016243,ENSRNOG0000057221,ENSRNOG0000003031,ENSRNOG0000002934,ENSRNOG0000032473, ENSRNOG000001304,ENSRNOG000001597,ENSRNOG0000011227,ENSRNOG000001285,ENSRNOG0000032884,ENSRNOG0000006087,ENSRNOG0000058866, ENSRNOG0000015049,ENSRNOG0000050675,ENSRNOG0000021256,ENSRNOG000007290,ENSRNOG0000032378,ENSRNOG0000030269,ENSRNOG000007090, ENSRNOG0000019738,ENSRNOG0000017060,ENSRNOG0000056228,ENSRNOG000003378,ENSRNOG0000032202,ENSRNOG0000016143,ENSRNOG0000010240, ENSRNOG0000020263,ENSRNOG0000020276,ENSRNOG0000021102,ENSRNOG000004026,ENSRNOG0000015222,ENSRNOG0000060931	34	0
4015	Rap1 signaling pathway	ENSRNOG0000001671,ENSRNOG0000009995,ENSRNOG0000014576,ENSRNOG0000013886,ENSRNOG0000030568,ENSRNOG0000007646,ENSRNOG0000013825, ENSRNOG0000004823,ENSRNOG0000019791,ENSRNOG0000020703	10	0
4320	Dorso-ventral axis formation	ENSRNOG0000002042,ENSRNOG0000023536,ENSRNOG0000009588,ENSRNOG000003741,ENSRNOG000001795,ENSRNOG0000009871,ENSRNOG0000004489, ENSRNOG0000013659,ENSRNOG0000028685,ENSRNOG0000030149,ENSRNOG0000032660,ENSRNOG000009381,ENSRNOG0000004346,ENSRNOG0000054625, ENSRNOG000002472,ENSRNOG0000002292,ENSRNOG0000023548,ENSRNOG0000049802,ENSRNOG0000056997,ENSRNOG0000019921,ENSRNOG000001647, ENSRNOG0000004099,ENSRNOG0000025324,ENSRNOG0000008919	24	0
5412	Arrhythmic right ventricular cardiomyopathy (ARVC)	ENSRNOG0000016526,ENSRNOG0000015602,ENSRNOG0000013928,ENSRNOG000002930,ENSRNOG0000014371,ENSRNOG0000023781,ENSRNOG0000016047, ENSRNOG0000056258	8	0
4391	Hippo signaling pathway -fly	ENSRNOG0000027277,ENSRNOG0000009949,ENSRNOG0000013101,ENSRNOG0000020466,ENSRNOG0000009772,ENSRNOG0000004569,ENSRNOG0000002975, ENSRNOG0000017342,ENSRNOG0000028335,ENSRNOG0000009726,ENSRNOG0000012367,ENSRNOG0000027299,ENSRNOG0000003796,ENSRNOG000001363, ENSRNOG0000013306,ENSRNOG0000045960,ENSRNOG0000020095,ENSRNOG0000020119,ENSRNOG0000003929,ENSRNOG0000030954,ENSRNOG00000060410, ENSRNOG0000038068,ENSRNOG0000029049,ENSRNOG0000012123,ENSRNOG0000017940,ENSRNOG0000009253,ENSRNOG0000013330,ENSRNOG0000018613, ENSRNOG0000017045,ENSRNOG0000019357,ENSRNOG0000039457,ENSRNOG0000028856,ENSRNOG0000005347,ENSRNOG0000019799,ENSRNOG0000031974, ENSRNOG0000020058	36	0
511	Other glycan degradation	ENSRNOG0000036667,ENSRNOG0000056162,ENSRNOG0000030654,ENSRNOG0000028341,ENSRNOG0000027498,ENSRNOG0000003195	6	0
4340	Hedgehog signaling pathway	ENSRNOG0000012629,ENSRNOG0000024955,ENSRNOG0000009956,ENSRNOG000005883,ENSRNOG0000050485,ENSRNOG0000016206,ENSRNOG0000005274, ENSRNOG0000014395,ENSRNOG0000056184,ENSRNOG0000028390,ENSRNOG0000020587,ENSRNOG0000020835,ENSRNOG0000018268,ENSRNOG0000014358, ENSRNOG0000016913,ENSRNOG000002537,ENSRNOG0000036676,ENSRNOG0000012735,ENSRNOG0000004879	19	0.01
4152	AMPK signaling pathway	ENSRNOG00000008482,ENSRNOG0000001069,ENSRNOG000001034,ENSRNOG000005963,ENSRNOG0000010728,ENSRNOG0000037505,ENSRNOG000006853, ENSRNOG0000027719,ENSRNOG000000165,ENSRNOG0000054011,ENSRNOG0000056337,ENSRNOG0000013752,ENSRNOG0000002961,ENSRNOG0000018901, ENSRNOG0000012873	15	0.01
3018	RNA degradation	ENSRNOG0000018931,ENSRNOG0000019579,ENSRNOG0000056487,ENSRNOG0000062283,ENSRNOG0000057988,ENSRNOG0000015642,ENSRNOG0000015375, ENSRNOG0000018582,ENSRNOG0000021052,ENSRNOG0000010537,ENSRNOG0000010719,ENSRNOG0000000702,ENSRNOG0000016218,ENSRNOG0000010795, ENSRNOG0000056629,ENSRNOG000002630,ENSRNOG0000022267,ENSRNOG0000053084,ENSRNOG000008178,ENSRNOG0000004909,ENSRNOG0000043262, ENSRNOG0000009442,ENSRNOG0000059442,ENSRNOG000004078,ENSRNOG000002827,ENSRNOG000005344,ENSRNOG000002075,ENSRNOG0000040297, ENSRNOG0000004284,ENSRNOG0000010799,ENSRNOG0000020782,ENSRNOG0000012263,ENSRNOG0000055687,ENSRNOG0000000421,ENSRNOG000008639, ENSRNOG0000012500,ENSRNOG000001555,ENSRNOG0000012271,ENSRNOG0000003689,ENSRNOG0000013267,ENSRNOG0000004568,ENSRNOG0000000204, ENSRNOG0000024212,ENSRNOG0000007340,ENSRNOG0000029194,ENSRNOG000003386,ENSRNOG0000004688	47	0.01
4711	Circadian rhythm - fly	ENSRNOG0000002456,ENSRNOG0000019383,ENSRNOG0000021027	3	0.01
4010	MAPK signaling pathway	ENSRNOG0000033508,ENSRNOG0000002749,ENSRNOG0000058478,ENSRNOG0000012422,ENSRNOG0000030091,ENSRNOG0000016684,ENSRNOG000004482, ENSRNOG000003568,ENSRNOG0000013981,ENSRNOG0000002838,ENSRNOG0000021581,ENSRNOG0000008130,ENSRNOG0000023896,ENSRNOG0000013657, ENSRNOG0000032828,ENSRNOG0000019568,ENSRNOG0000013034,ENSRNOG0000027911,ENSRNOG0000015134,ENSRNOG0000014013,ENSRNOG0000011841, ENSRNOG0000012730,ENSRNOG0000055981,ENSRNOG0000017419,ENSRNOG000001662,ENSRNOG000003877,ENSRNOG000005334,ENSRNOG0000019964, ENSRNOG0000029394,ENSRNOG0000014128,ENSRNOG0000011518,ENSRNOG0000005807,ENSRNOG0000009956,ENSRNOG000001138,ENSRNOG0000010789, ENSRNOG0000007271,ENSRNOG0000005133,ENSRNOG0000030667,ENSRNOG0000017568,ENSRNOG0000013136,ENSRNOG0000005185	41	0.01
534	Glycosaminoglycan biosynthesis - heparan sulfate / heparin	ENSRNOG0000016776,ENSRNOG0000012549,ENSRNOG0000014323,ENSRNOG0000024886,ENSRNOG0000017659,ENSRNOG0000030880,ENSRNOG0000013581, ENSRNOG000000316,ENSRNOG0000015781,ENSRNOG0000037886	10	0.02
4022	cGMP - PKG signaling pathway	ENSRNOG0000033134,ENSRNOG0000013463,ENSRNOG0000054458,ENSRNOG000006324,ENSRNOG0000031778,ENSRNOG0000020188,ENSRNOG0000024998, ENSRNOG0000013887,ENSRNOG0000001714,ENSRNOG0000047756,ENSRNOG0000001235,ENSRNOG0000047545,ENSRNOG0000009299	13	0.02
4919	Thyroid hormone signaling pathway	ENSRNOG0000002832,ENSRNOG0000060437,ENSRNOG0000003679,ENSRNOG000004068,ENSRNOG0000050606,ENSRNOG0000052017,ENSRNOG0000008711, ENSRNOG0000003848,ENSRNOG0000009066,ENSRNOG0000032798,ENSRNOG000005246,ENSRNOG0000032254,ENSRNOG0000048622,ENSRNOG000003792	14	0.02
5202	Transcriptional misregulation in cancers	ENSRNOG0000000652,ENSRNOG0000018317,ENSRNOG0000007257,ENSRNOG0000036678,ENSRNOG0000054375,ENSRNOG0000006965,ENSRNOG0000012961, ENSRNOG0000050200,ENSRNOG0000012205,ENSRNOG0000006400,ENSRNOG0000010648,ENSRNOG0000009071,ENSRNOG000002117,ENSRNOG0000058096, ENSRNOG0000003229,ENSRNOG0000006010,ENSRNOG0000007590,ENSRNOG000004730,ENSRNOG0000046996,ENSRNOG0000009979,ENSRNOG000003135, ENSRNOG0000051929,ENSRNOG0000007814,ENSRNOG0000016885,ENSRNOG0000040606,ENSRNOG0000016800,ENSRNOG0000052572,ENSRNOG0000017863, ENSRNOG0000007439,ENSRNOG0000010560,ENSRNOG0000006867,ENSRNOG000002950,ENSRNOG0000014253,ENSRNOG0000017206,ENSRNOG0000037613, ENSRNOG0000018468,ENSRNOG0000008137,ENSRNOG0000057031,ENSRNOG0000053562,ENSRNOG0000047450,ENSRNOG0000007818,ENSRNOG0000005964, ENSRNOG0000028611,ENSRNOG0000025051,ENSRNOG0000004693,ENSRNOG0000012186,ENSRNOG0000017113,ENSRNOG000001588,ENSRNOG0000007151, ENSRNOG0000051472,ENSRNOG0000018483,ENSRNOG000003786,ENSRNOG0000002232,ENSRNOG0000016957,ENSRNOG0000012478,ENSRNOG00000212933, ENSRNOG0000013620,ENSRNOG0000061910,ENSRNOG0000008785	59	0.02
5206	MicroRNAs in cancer	ENSRNOG00000028097,ENSRNOG0000007514,ENSRNOG0000032332,ENSRNOG0000020860,ENSRNOG0000010711,ENSRNOG0000047028,ENSRNOG0000031612, ENSRNOG000005624,ENSRNOG0000015732,ENSRNOG0000009184,ENSRNOG0000011544,ENSRNOG0000033910,ENSRNOG0000000579,ENSRNOG00000004109, ENSRNOG0000060153,ENSRNOG0000020336,ENSRNOG0000058340,ENSRNOG0000054508,ENSRNOG0000030034,ENSRNOG0000043077,ENSRNOG0000004677, ENSRNOG0000009696,ENSRNOG0000056246,ENSRNOG0000011575,ENSRNOG0000036865,ENSRNOG00000205371,ENSRNOG0000018929	27	0.03
5134	Legionellosis	ENSRNOG0000058710,ENSRNOG0000003714,ENSRNOG0000021732,ENSRNOG0000012394,ENSRNOG0000030126,ENSRNOG0000011358,ENSRNOG0000019333, ENSRNOG0000018220,ENSRNOG0000012477,ENSRNOG0000007034,ENSRNOG0000020500,ENSRNOG0000050510,ENSRNOG0000015253	13	0.03
4713	Circadian entrainment	ENSRNOG0000003348,ENSRNOG0000042929,ENSRNOG0000012524,ENSRNOG0000020557,ENSRNOG00000008951	5	0.03
240	Pyrimidine metabolism	ENSRNOG0000017412,ENSRNOG0000000549,ENSRNOG0000021552,ENSRNOG0000017850,ENSRNOG0000004257,ENSRNOG0000007221,ENSRNOG00000005477	7	0.03
4931	Insulin resistance	ENSRNOG0000013135,ENSRNOG0000017600,ENSRNOG0000006400,ENSRNOG000004100,ENSRNOG0000021729,ENSRNOG00000023951,ENSRNOG0000012568, ENSRNOG0000024711,ENSRNOG00000004110,ENSRNOG0000011739,ENSRNOG0000018457,ENSRNOG0000014478,ENSRNOG0000040650	13	0.03
4550	Signaling pathways regulating pluripotency of stem cells	ENSRNOG0000010551,ENSRNOG0000013959,ENSRNOG0000003517,ENSRNOG0000016099,ENSRNOG0000006378,ENSRNOG0000010501,ENSRNOG0000060334, ENSRNOG0000047686,ENSRNOG0000010822,ENSRNOG0000021139,ENSRNOG0000045918,ENSRNOG0000026124,ENSRNOG0000040801,ENSRNOG0000014871, ENSRNOG0000050282,ENSRNOG000005340,ENSRNOG0000000012,ENSRNOG0000028348,ENSRNOG0000014452,ENSRNOG0000009899,ENSRNOG0000008765, ENSRNOG0000056098,ENSRNOG0000017019,ENSRNOG0000002593,ENSRNOG0000038909,ENSRNOG0000022644,ENSRNOG0000025634,ENSRNOG0000010357, ENSRNOG0000022870,ENSRNOG0000019771,ENSRNOG0000004278,ENSRNOG0000014483,ENSRNOG0000006062,ENSRNOG0000016181,ENSRNOG0000006908	35	0.03
1210	2-Oxocarboxylic acid metabolism	ENSRNOG0000013271,ENSRNOG0000055572,ENSRNOG0000007268,ENSRNOG0000007280,ENSRNOG0000059579,ENSRNOG0000002428,ENSRNOG0000015514, ENSRNOG0000020879	8	0.04
4014	Ras signaling pathway	ENSRNOG0000013780,ENSRNOG0000033744,ENSRNOG0000011471,ENSRNOG0000004917,ENSRNOG0000012912,ENSRNOG0000017017,ENSRNOG0000028630, ENSRNOG0000021444,ENSRNOG0000026799,ENSRNOG0000032700,ENSRNOG0000012864,ENSRNOG0000008089,ENSRNOG0000029784,ENSRNOG0000014276, ENSRNOG00000048389,ENSRNOG0000019131,ENSRNOG0000009662,ENSRNOG0000042753,ENSRNOG0000057322,ENSRNOG0000002347,ENSRNOG00000046499, ENSRNOG0000016945,ENSRNOG0000014689,ENSRNOG0000014025,ENSRNOG0000034177,ENSRNOG0000008960,ENSRNOG0000010780,ENSRNOG0000017671, ENSRNOG0000016995,ENSRNOG0000004676,ENSRNOG0000020573,ENSRNOG0000011568,ENSRNOG000005404,ENSRNOG0000000474,ENSRNOG00000000483, ENSRNOG0000024040,ENSRNOG0000016050,ENSRNOG0000032703,ENSRNOG0000010131	39	0.04
630	Glyoxylate and dicarboxylate metabolism	ENSRNOG0000012891,ENSRNOG0000009536,ENSRNOG0000028659,ENSRNOG0000008374,ENSRNOG0000011535,ENSRNOG0000013836,ENSRNOG0000003603, ENSRNOG0000051496,ENSRNOG0000056944	9	0.04
4910	Insulin signaling pathway	ENSRNOG0000059753,ENSRNOG0000004473,ENSRNOG0000014693,ENSRNOG0000028733,ENSRNOG0000008088,ENSRNOG0000049876,ENSRNOG0000013391, ENSRNOG0000010171,ENSRNOG0000003919,ENSRNOG0000010358,ENSRNOG0000024870,ENSRNOG0000046256,ENSRNOG0000025046,ENSRNOG0000015717, ENSRNOG0000050578,ENSRNOG0000018780,ENSRNOG0000015658,ENSRNOG0000055319,ENSRNOG0000034013,ENSRNOG0000010652,ENSRNOG0000009085, ENSRNOG0000023509,ENSRNOG0000013798,ENSRNOG0000003821,ENSRNOG0000047247,ENSRNOG0000014316,ENSRNOG0000052343,ENSRNOG0000017226, ENSRNOG0000007400,ENSRNOG0000050711,ENSRNOG0000025792,		

Table S11. KEGG enrichment analysis of differential genes in LPF vs CON group.

pathway id	pathway name	Genes	s gene number	P-value
4144	Endocytosis	ENSRNOG00000017612;ENSRNOG00000013538;ENSRNOG00000009946;ENSRNOG00000043150;ENSRNOG00000024345;ENSRNOG00000010502;ENSRNOG00000028255;ENSRNOG0000004087;ENSRNOG00000006881;ENSRNOG000000006123;ENSRNOG00000024602;ENSRNOG0000001194;ENSRNOG0000001294;ENSRNOG00000011962;ENSRNOG00000014274;ENSRNOG00000000048;ENSRNOG00000026780;ENSRNOG00000004382;ENSRNOG00000016374;ENSRNOG00000027761;ENSRNOG00000025344;ENSRNOG0000001302;ENSRNOG00000012379;ENSRNOG000000014970;ENSRNOG00000016539;ENSRNOG00000004091;ENSRNOG00000015753;ENSRNOG00000001730;ENSRNOG00000000017333;ENSRNOG00000015002;ENSRNOG00000019435;ENSRNOG00000015232;ENSRNOG000000008981;ENSRNOG00000056207;ENSRNOG00000009999;ENSRNOG000000024207;ENSRNOG000000009198;ENSRNOG00000002705;ENSRNOG000000017029;ENSRNOG000000024566;ENSRNOG00000043328;ENSRNOG00000012001;ENSRNOG00000001274;ENSRNOG000000011100;ENSRNOG00000017746;ENSRNOG00000058975;ENSRNOG00000008471;ENSRNOG00000017832;ENSRNOG00000014083;ENSRNOG00000002903;ENSRNOG000000011105;ENSRNOG00000019973;ENSRNOG00000016818;ENSRNOG00000014997;ENSRNOG000000008672;ENSRNOG000000014127;ENSRNOG000000054033;ENSRNOG00000004043;ENSRNOG00000004977;ENSRNOG000000060979;ENSRNOG00000002657;ENSRNOG00000007806;ENSRNOG00000058663;ENSRNOG00000015516;ENSRNOG00000008642;ENSRNOG00000004239;ENSRNOG00000005726;ENSRNOG00000002844;ENSRNOG0000001350;ENSRNOG00000021051;ENSRNOG00000058733;ENSRNOG000000010361;ENSRNOG00000010140;ENSRNOG000000004672;ENSRNOG00000007272;ENSRNOG00000004791;ENSRNOG00000010299;ENSRNOG000000049127;ENSRNOG0000000001090;ENSRNOG00000000052887;ENSRNOG000000047235;ENSRNOG00000011944;ENSRNOG00000023993;ENSRNOG00000004140;ENSRNOG00000057556;ENSRNOG00000004282;ENSRNOG00000002856;ENSRNOG000000013884;ENSRNOG00000017788;ENSRNOG00000019130;ENSRNOG00000007356;ENSRNOG00000019555;ENSRNOG000000027183;ENSRNOG000000005015;ENSRNOG00000001947;ENSRNOG000000021403;ENSRNOG00000057125;ENSRNOG0000001270;ENSRNOG00000048699;ENSRNOG00000006159;ENSRNOG00000006030;ENSRNOG00000026048;ENSRNOG000000009675;ENSRNOG000000022844;ENSRNOG000000018176;ENSRNOG0000001059;ENSRNOG00000012623;ENSRNOG000000014996;ENSRNOG000000020281;ENSRNOG000000004951;ENSRNOG00000020577;ENSRNOG00000019729;ENSRNOG00000025584;ENSRNOG00000014135;ENSRNOG00000018123;ENSRNOG00000010971;ENSRNOG00000004043;ENSRNOG000000022347;ENSRNOG00000000350;ENSRNOG00000007684;ENSRNOG00000018462;ENSRNOG00000034071;ENSRNOG0000000046741;ENSRNOG00000002669;ENSRNOG00000006077;ENSRNOG000000015744;ENSRNOG000000038035;ENSRNOG00000047088;ENSRNOG000000007710;ENSRNOG0000000027491;ENSRNOG000000005752;ENSRNOG000000000200201;ENSRNOG00000010224;ENSRNOG00000008994;ENSRNOG00000004185;ENSRNOG00000006663;ENSRNOG00000003428;ENSRNOG00000012354;ENSRNOG000000002106;ENSRNOG00000056826;ENSRNOG00000012654;ENSRNOG000000032026;ENSRNOG00000026582;ENSRNOG000000030131;ENSRNOG00000016763;ENSRNOG000000005923;ENSRNOG000000012764;ENSRNOG0000000006336;ENSRNOG00000003785;ENSRNOG000000061821;ENSRNOG00000011421;ENSRNOG000000001065;ENSRNOG00000005898;ENSRNOG00000000014317;ENSRNOG000000029628;ENSRNOG00000043503;ENSRNOG00000007648;ENSRNOG000000061099;ENSRNOG00000000671	160	0
4514	Cell adhesion molecules (CAMs)	ENSRNOG00000018870;ENSRNOG000000003812;ENSRNOG00000013503;ENSRNOG000000052405;ENSRNOG0000001989;ENSRNOG000000023490;ENSRNOG00000013481;ENSRNOG000000029798;ENSRNOG00000010533;ENSRNOG00000019424;ENSRNOG000000021103;ENSRNOG000000023720;ENSRNOG000000020129;ENSRNOG0000001103;ENSRNOG000000011803;ENSRNOG00000000898;ENSRNOG00000047574;ENSRNOG000000013515;ENSRNOG000000032656;ENSRNOG000000028992;ENSRNOG00000047605;ENSRNOG0000000550;ENSRNOG0000000325717;ENSRNOG00000003365;ENSRNOG00000015430;ENSRNOG00000021023;ENSRNOG00000009219;ENSRNOG00000020277;ENSRNOG0000001700;ENSRNOG000000017193;ENSRNOG000000030515;ENSRNOG00000011927;ENSRNOG000000065643;ENSRNOG00000018178;ENSRNOG00000019418;ENSRNOG000000013694;ENSRNOG000000050220;ENSRNOG000000031136;ENSRNOG000000033496;ENSRNOG000000033496;ENSRNOG00000018798;ENSRNOG00000019869;ENSRNOG000000021410;ENSRNOG00000004067;ENSRNOG00000024243;ENSRNOG000000042078;ENSRNOG000000032576;ENSRNOG00000002792;ENSRNOG000000040076;ENSRNOG00000003040;ENSRNOG00000006940;ENSRNOG000000003387;ENSRNOG00000019958;ENSRNOG00000014440;ENSRNOG00000023809;ENSRNOG000000048277;ENSRNOG00000017918;ENSRNOG00000018557;ENSRNOG00000029212	59	0
3015	mRNA surveillance pathway	ENSRNOG00000004827;ENSRNOG00000009891;ENSRNOG000000017829;ENSRNOG00000012455;ENSRNOG00000021058;ENSRNOG00000009716;ENSRNOG00000018194;ENSRNOG00000027962;ENSRNOG000000060335;ENSRNOG000000062103;ENSRNOG00000013456;ENSRNOG00000014984;ENSRNOG00000019590;ENSRNOG000000062215;ENSRNOG000000003041;ENSRNOG00000004061;ENSRNOG00000016145;ENSRNOG00000013533;ENSRNOG00000014353;ENSRNOG00000005733;ENSRNOG00000022289;ENSRNOG00000007333;ENSRNOG00000012089;ENSRNOG000000048817;ENSRNOG0000000039994;ENSRNOG00000057821;ENSRNOG00000005927;ENSRNOG00000023593;ENSRNOG00000001526;ENSRNOG000000020668;ENSRNOG000000008822;ENSRNOG00000004806;ENSRNOG00000002270;ENSRNOG00000017397;ENSRNOG00000050289;ENSRNOG00000006206;ENSRNOG000000024507;ENSRNOG00000011832;ENSRNOG00000020134;ENSRNOG000000047143;ENSRNOG00000006420;ENSRNOG00000020771;ENSRNOG00000012260;ENSRNOG000000022877;ENSRNOG00000006261;ENSRNOG000000047386;ENSRNOG000000025338	47	0
4724	Glutamatergic synapse	ENSRNOG00000020310;ENSRNOG00000033942;ENSRNOG000000008992;ENSRNOG000000050206;ENSRNOG00000016196;ENSRNOG00000012573;ENSRNOG00000016163;ENSRNOG00000022296;ENSRNOG00000019207;ENSRNOG00000000368;ENSRNOG00000014302;ENSRNOG000000020426;ENSRNOG00000020225;ENSRNOG00000007509;ENSRNOG000000011644	15	0
4141	Protein processing in endoplasmic reticulum	ENSRNOG000000048509;ENSRNOG00000006619;ENSRNOG00000014165;ENSRNOG00000020340;ENSRNOG00000004521;ENSRNOG00000005841;ENSRNOG00000006107;ENSRNOG00000021202;ENSRNOG00000011922;ENSRNOG00000015173;ENSRNOG00000011066;ENSRNOG00000005531;ENSRNOG000000058543;ENSRNOG00000015226;ENSRNOG00000010441;ENSRNOG00000010441;ENSRNOG00000019273;ENSRNOG0000000794;ENSRNOG0000000907283;ENSRNOG00000004657;ENSRNOG00000013360;ENSRNOG00000013469;ENSRNOG00000004882;ENSRNOG00000009090;ENSRNOG0000000045623;ENSRNOG00000010628;ENSRNOG00000010101;ENSRNOG000000042523;ENSRNOG00000016137;ENSRNOG00000012559;ENSRNOG000000037137;ENSRNOG00000019506;ENSRNOG000000019724;ENSRNOG000000023278;ENSRNOG00000016251;ENSRNOG00000013865;ENSRNOG00000000025689;ENSRNOG000000007892;ENSRNOG000000008604;ENSRNOG00000004888;ENSRNOG00000025570;ENSRNOG00000013061;ENSRNOG00000034015;ENSRNOG000000000611;ENSRNOG00000003755;ENSRNOG000000021824;ENSRNOG00000005209;ENSRNOG00000003099;ENSRNOG00000001640;ENSRNOG00000051889;ENSRNOG000000051243;ENSRNOG0000000036837;ENSRNOG00000007492;ENSRNOG00000007753;ENSRNOG00000009042;ENSRNOG00000004464;ENSRNOG00000019749;ENSRNOG00000029995;ENSRNOG00000002637ENSRNOG00000013741;ENSRNOG00000004794;ENSRNOG000000051408;ENSRNOG0000000557;ENSRNOG00000004621;ENSRNOG00000006228;ENSRNOG00000015079;ENSRNOG0000001803;ENSRNOG00000015051;ENSRNOG00000004444;ENSRNOG0000001444;ENSRNOG0000001238;ENSRNOG0000001682;ENSRNOG00000009090;ENSRNOG000000030026;ENSRNOG00000010353;ENSRNOG00000007884;ENSRNOG00000010944;ENSRNOG00000006241;ENSRNOG00000017876;ENSRNOG00000015202;ENSRNOG00000005263;ENSRNOG00000026985;ENSRNOG000000055446;ENSRNOG00000019798;ENSRNOG00000012255;ENSRNOG000000060345;ENSRNOG00000007029;ENSRNOG000000016603;ENSRNOG00000005172;ENSRNOG00000003029;ENSRNOG00000034242;ENSRNOG00000026005;ENSRNOG000000046345;ENSRNOG000000024632;ENSRNOG00000003343;ENSRNOG00000007141;ENSRNOG000000008830;ENSRNOG00000005108;ENSRNOG00000000902	99	0
4728	Dopaminergic synapse	ENSRNOG000000001893;ENSRNOG000000018851;ENSRNOG000000015182;ENSRNOG0000000021025;ENSRNOG0000001409;ENSRNOG0000000016940;ENSRNOG000000014448;ENSRNOG00000004973;ENSRNOG00000018337;ENSRNOG000000039562;ENSRNOG00000006957;ENSRNOG000000053122;ENSRNOG00000011282;ENSRNOG00000016638;ENSRNOG000000005706;ENSRNOG0000001019174;ENSRNOG00000001348;ENSRNOG00000000461;ENSRNOG000000000460;ENSRNOG00000004601;ENSRNOG00000023688;ENSRNOG00000005369;ENSRNOG000000005299;ENSRNOG000000047799;ENSRNOG000000049270;ENSRNOG00000010397;ENSRNOG00000011158;ENSRNOG000000001658;ENSRNOG00000022999;ENSRNOG00000008428;ENSRNOG000000052707;ENSRNOG000000058202;ENSRNOG00000016849;ENSRNOG000000045816;ENSRNOG000000017466;ENSRNOG00000002899;ENSRNOG00000004680;ENSRNOG00000007682;ENSRNOG000000054204	41	0
4727	GABAergic synapse	ENSRNOG00000009019;ENSRNOG00000005697;ENSRNOG00000018111;ENSRNOG00000010881;ENSRNOG00000057620;ENSRNOG00000006527;ENSRNOG00000014819;ENSRNOG00000016827;ENSRNOG00000020366;ENSRNOG00000019262;ENSRNOG00000032659;ENSRNOG00000019484;ENSRNOG00000013368	13	0
5134	Legionellosis	ENSRNOG00000003714;ENSRNOG000000004992;ENSRNOG000000012394;ENSRNOG000000023269;ENSRNOG000000030126;ENSRNOG000000025768;ENSRNOG00000011558;ENSRNOG00000019333;ENSRNOG000000020075;ENSRNOG00000018220;ENSRNOG00000012477;ENSRNOG00000018604;ENSRNOG00000037393;ENSRNOG00000020500;ENSRNOG00000006698;ENSRNOG00000005010;ENSRNOG00000015253	18	0
4360	Axon guidance	ENSRNOG00000005506;ENSRNOG00000058545;ENSRNOG0000000059840;ENSRNOG00000006526;ENSRNOG00000047967;ENSRNOG000000004566;ENSRNOG00000016254;ENSRNOG00000005849;ENSRNOG00000011133;ENSRNOG00000003840;ENSRNOG000000013213;ENSRNOG00000010320;ENSRNOG00000045952;ENSRNOG00000029614;ENSRNOG0000000006970;ENSRNOG00000007865;ENSRNOG00000014650;ENSRNOG00000007970;ENSRNOG0000000006784;ENSRNOG00000004064;ENSRNOG00000013036;ENSRNOG00000006509;ENSRNOG000000202;ENSRNOG000000037340;ENSRNOG00000009230;ENSRNOG00000007377;ENSRNOG00000014648;ENSRNOG0000001665;ENSRNOG00000006877;ENSRNOG00000028627;ENSRNOG00000007324;ENSRNOG00000006000;ENSRNOG0000001101;ENSRNOG000000029510;ENSRNOG00000025299;ENSRNOG00000003878;ENSRNOG00000004042607;ENSRNOG00000027463;ENSRNOG00000019365;ENSRNOG0000001704;ENSRNOG00000006733;ENSRNOG000000008100;ENSRNOG00000026065;ENSRNOG000000014367	44	0
4721	Synaptic vesicle cycle	ENSRNOG00000006426;ENSRNOG00000008237;ENSRNOG00000003905;ENSRNOG00000018452;ENSRNOG000000033835;ENSRNOG000000018217;ENSRNOG000000000936;ENSRNOG00000017136;ENSRNOG0000001733;ENSRNOG0000001709;ENSRNOG000000129165;ENSRNOG000000026432;ENSRNOG0000006037;ENSRNOG00000004291;ENSRNOG00000017678;ENSRNOG0000000105;ENSRNOG00000055612;ENSRNOG00000011000;ENSRNOG00000006989;ENSRNOG000000019318;ENSRNOG00000019613;ENSRNOG00000000060;ENSRNOG00000019193	23	0
3040	Spliceosome	ENSRNOG00000043370;ENSRNOG00000056208;ENSRNOG000000020438;ENSRNOG00000010587;ENSRNOG00000043099;ENSRNOG000000052968;ENSRNOG00000005218;ENSRNOG00000059362;ENSRNOG000000013847;ENSRNOG000000049128;ENSRNOG00000015914;ENSRNOG00000011400;ENSRNOG00000036839;ENSRNOG00000012505;ENSRNOG000000387;ENSRNOG000000016919;ENSRNOG00000000866;ENSRNOG00000001783;ENSRNOG000000021986;ENSRNOG00000017724;ENSRNOG00000011175;ENSRNOG000000007921;ENSRNOG000000051193;ENSRNOG0000001479;ENSRNOG000000036852;ENSRNOG00000006418;ENSRNOG00000020946;ENSRNOG00000016016;ENSRNOG00000018685;ENSRNOG0000000500052529;ENSRNOG00000001060;ENSRNOG00000054355;ENSRNOG000000033176;ENSRNOG0000000009156;ENSRNOG00000004864;ENSRNOG000000042062;ENSRNOG00000000710;ENSRNOG00000009474;ENSRNOG0000001170;ENSRNOG000000019507;ENSRNOG000000012157;ENSRNOG000000057759;ENSRNOG00000013541;ENSRNOG00000014846;ENSRNOG000000008607;ENSRNOG00000039876;ENSRNOG00000014777;ENSRNOG00000007541;ENSRNOG0000000004549;ENSRNOG00000013186;ENSRNOG000000033790;ENSRNOG0000000096939;ENSRNOG00000003844;ENSRNOG00000059347;ENSRNOG00000002871;ENSRNOG000000020412;ENSRNOG00000017708;ENSRNOG000000047628;ENSRNOG000000052111;ENSRNOG00000028282;ENSRNOG000000012406;ENSRNOG00000012138;ENSRNOG00000005258;ENSRNOG000000040405;ENSRNOG00000021946;ENSRNOG00000007992;ENSRNOG000000002433;ENSRNOG00000037604	75	0
4391	Hippo signaling pathway-fly	ENSRNOG000000030330;ENSRNOG00000009949;ENSRNOG00000013101;ENSRNOG000000099205;ENSRNOG00000020666;ENSRNOG00000020466;ENSRNOG00000009772;ENSRNOG0000005698;ENSRNOG0000003123;ENSRNOG00000028335;ENSRNOG000000009726;ENSRNOG00000012367;ENSRNOG00000027299;ENSRNOG00000001643;ENSRNOG000000040344;ENSRNOG00000013306;ENSRNOG00000027232;ENSRNOG00000017917;ENSRNOG000000020095;ENSRNOG00000002001;ENSRNOG00000003929;ENSRNOG00000003954;ENSRNOG0000003889;ENSRNOG00000038068;ENSRNOG000000042376;ENSRNOG00000029049;ENSRNOG00000039459;ENSRNOG0000001213;ENSRNOG00000017940;ENSRNOG0000000016358;ENSRNOG00000012988;ENSRNOG00000020746;ENSRNOG000000022720;ENSRNOG00000019357;ENSRNOG00000004581;ENSRNOG00000019799;ENSRNOG0000000301974;ENSRNOG00000011585;ENSRNOG00000021891;ENSRNOG00000020058	40	0
4512	ECM-receptor interaction	ENSRNOG0000001964;ENSRNOG00000033581;ENSRNOG00000009209;ENSRNOG00000002746;ENSRNOG00000014021;ENSRNOG00000008034;ENSRNOG00000046981;ENSRNOG00000058645;ENSRNOG00000025959;ENSRNOG000000011160;ENSRNOG00000019577;ENSRNOG000000048178;ENSRNOG00000016534;ENSRNOG00000016623;ENSRNOG000000016058;ENSRNOG00000007726;ENSRNOG00000021182;ENSRNOG000000011562;ENSRNOG000000001254;ENSRNOG000000020468;ENSRNOG00000020205;ENSRNOG00000059903;ENSRNOG0000004208;ENSRNOG000000032569;ENSRNOG00000016678;ENSRNOG00000011900;ENSRNOG00000025793;ENSRNOG00000020864;ENSRNOG00000009649;ENSRNOG0000022726;ENSRNOG0000000618;ENSRNOG00000009982;ENSRNOG00000009949;ENSRNOG00000005678;ENSRNOG000000043451;ENSRNOG0000010932;ENSRNOG0000001172;ENSRNOG0000000020603;ENSRNOG00000009872;ENSRNOG00000013654;ENSRNOG00000021041;ENSRNOG00000006060;ENSRNOG00000099414;ENSRNOG0000005932;ENSRNOG00000049531;ENSRNOG00000039207;ENSRNOG0000002734;ENSRNOG000000021441	48	0
4726	Serotonergic synapse	ENSRNOG00000052486;ENSRNOG00000004077;ENSRNOG000000004417;ENSRNOG00000019719;ENSRNOG00000014686;ENSRNOG000000019959;ENSRNOG000000108285;ENSRNOG0000007454;ENSRNOG00000006988;ENSRNOG00000019750;ENSRNOG00000006202;ENSRNOG0000002149;ENSRNOG00000002431;ENSRNOG0000000446;ENSRNOG00000050741;ENSRNOG000000013681;ENSRNOG00000013042;ENSRNOG000000045131;ENSRNOG00000010254;ENSRNOG00000005401;ENSRNOG000000053640	20	0
4010	MAPK signaling pathway	ENSRNOG00000014065;ENSRNOG00000033508;ENSRNOG0000000011705;ENSRNOG00000000058478;ENSRNOG00000012422;ENSRNOG00000016684;ENSRNOG00000033568;ENSRNOG0000024808;ENSRNOG00000002838;ENSRNOG0000000201581;ENSRNOG000000008704;ENSRNOG000000046000;ENSRNOG00000008130;ENSRNOG000000036798;ENSRNOG00000023896;ENSRNOG00000013657;ENSRNOG00000032828;ENSRNOG0000000080849;ENSRNOG00000015692;ENSRNOG00000019568;ENSRNOG00000016810;ENSRNOG00000015134;ENSRNOG00000014013;ENSRNOG00000053232;ENSRNOG0000		

4120	Ubiquitin mediated proteolysis	ENSRNOG00000013718;ENSRNOG00000047604;ENSRNOG00000059876;ENSRNOG00000016963;ENSRNOG00000012671;ENSRNOG00000016711;ENSRNOG00000013281;ENSRNOG00000013703;ENSRNOG00000005157;ENSRNOG00000006221;ENSRNOG00000012333;ENSRNOG000000048848;ENSRNOG0000001352;ENSRNOG00000009566;ENSRNOG000000061868;ENSRNOG00000048975;ENSRNOG00000013809;ENSRNOG00000036796;ENSRNOG00000029441;ENSRNOG00000027514;ENSRNOG00000026833;ENSRNOG00000016541;ENSRNOG0000001754;ENSRNOG00000020701;ENSRNOG00000020897;ENSRNOG0000004306;ENSRNOG00000042492;ENSRNOG0000007394;ENSRNOG0000001303;ENSRNOG00000007373;ENSRNOG00000027191;ENSRNOG00000006335;ENSRNOG00000014373;ENSRNOG00000018515;ENSRNOG00000006515;ENSRNOG00000019390;ENSRNOG00000000033372;ENSRNOG00000015143;ENSRNOG00000004686;ENSRNOG00000004193;ENSRNOG00000017294;ENSRNOG00000011007;ENSRNOG000000006633;ENSRNOG00000015633;ENSRNOG00000037315;ENSRNOG00000010889;ENSRNOG0000001262;ENSRNOG00000055433;ENSRNOG000000005758;ENSRNOG00000020302;ENSRNOG00000027728;ENSRNOG0000000034075;ENSRNOG00000005371;ENSRNOG00000006542;ENSRNOG00000016877;ENSRNOG00000012723;ENSRNOG00000020791;ENSRNOG00000008039;ENSRNOG00000001124;ENSRNOG00000014529;ENSRNOG00000010479;ENSRNOG000000052513;ENSRNOG00000024535;ENSRNOG000000006816;ENSRNOG00000057706;ENSRNOG00000021712;ENSRNOG00000016612;ENSRNOG000000058053;ENSRNOG00000006905	69	0
5213	Endometrial cancer	ENSRNOG00000020423;ENSRNOG00000033809;ENSRNOG00000010838;ENSRNOG00000021147;ENSRNOG00000055010;ENSRNOG00000020723;ENSRNOG0000004058;ENSRNOG0000042556	8	0
532	Glycosaminoglycan biosynthesis - chondroitin sulfate / dermatan sulfate	ENSRNOG00000020038;ENSRNOG00000053075;ENSRNOG000000008885;ENSRNOG000000032307;ENSRNOG00000019804;ENSRNOG00000016855;ENSRNOG00000003728;ENSRNOG00000015867;ENSRNOG00000023101;ENSRNOG00000016267;ENSRNOG00000045997;ENSRNOG00000025930;ENSRNOG0000001252;ENSRNOG00000012698;ENSRNOG000000150152	15	0
310	Lysine degradation	ENSRNOG00000015621;ENSRNOG00000042355;ENSRNOG00000005486;ENSRNOG00000016680;ENSRNOG00000038140;ENSRNOG00000006615;ENSRNOG00000015133;ENSRNOG00000032546;ENSRNOG000000061080;ENSRNOG000000021143;ENSRNOG000000002317;ENSRNOG000000020915;ENSRNOG0000001337;ENSRNOG00000007242;ENSRNOG00000019955;ENSRNOG00000005585;ENSRNOG00000055028;ENSRNOG00000011308;ENSRNOG000000021614;ENSRNOG0000001417;ENSRNOG000000036841;ENSRNOG00000016790;ENSRNOG00000005061;ENSRNOG00000008689;ENSRNOG00000023587;ENSRNOG00000016410;ENSRNOG00000005130;ENSRNOG00000013975;ENSRNOG000000061312;ENSRNOG00000020386;ENSRNOG00000021110;ENSRNOG000000062048	32	0
4550	Signaling pathways regulating pluripotency of stem cells	ENSRNOG00000010551;ENSRNOG00000013959;ENSRNOG00000003517;ENSRNOG00000016099;ENSRNOG000000066378;ENSRNOG00000010591;ENSRNOG000000047686;ENSRNOG0000001139;ENSRNOG00000010822;ENSRNOG00000011319;ENSRNOG00000045913;ENSRNOG0000005996;ENSRNOG00000048011;ENSRNOG00000014871;ENSRNOG00000012850;ENSRNOG00000020687;ENSRNOG00000055028;ENSRNOG000000055340;ENSRNOG00000028348;ENSRNOG00000009899;ENSRNOG000000060544;ENSRNOG00000016915;ENSRNOG00000008765;ENSRNOG000000056098;ENSRNOG00000017019;ENSRNOG0000000001520;ENSRNOG000000020250;ENSRNOG00000002593;ENSRNOG0000000380909;ENSRNOG0000002664;ENSRNOG00000025634;ENSRNOG00000010357;ENSRNOG00000022870;ENSRNOG00000019095;ENSRNOG0000004828;ENSRNOG0000005174;ENSRNOG00000018532;ENSRNOG00000000861;ENSRNOG00000014483;ENSRNOG000000006908	40	0
4340	Hedgehog signaling pathway	ENSRNOG00000006120;ENSRNOG00000012629;ENSRNOG00000024955;ENSRNOG00000019271;ENSRNOG00000009956;ENSRNOG00000005883;ENSRNOG00000019807;ENSRNOG0000007864;ENSRNOG00000016620;ENSRNOG00000014395;ENSRNOG000000056184;ENSRNOG00000017106;ENSRNOG00000020835;ENSRNOG00000020241;ENSRNOG00000014358;ENSRNOG00000016913;ENSRNOG00000014644;ENSRNOG000000036676;ENSRNOG00000012735;ENSRNOG000000054879	20	0
4152	AMPK signaling pathway	ENSRNOG00000001069;ENSRNOG00000001034;ENSRNOG00000005963;ENSRNOG000000010728;ENSRNOG000000051592;ENSRNOG000000025285;ENSRNOG00000001891;ENSRNOG00000006853;ENSRNOG000000207719;ENSRNOG0000000165;ENSRNOG00000002180;ENSRNOG000000056337;ENSRNOG00000013752;ENSRNOG00000023601;ENSRNOG000000018901;ENSRNOG000000025881	16	0
4114	Oocyte meiosis	ENSRNOG00000005528;ENSRNOG00000052080;ENSRNOG00000008691;ENSRNOG00000019685;ENSRNOG00000049768;ENSRNOG00000011589;ENSRNOG00000019503;ENSRNOG00000003116;ENSRNOG00000006632;ENSRNOG00000016965;ENSRNOG00000005447;ENSRNOG00000011339;ENSRNOG0000005376;ENSRNOG000000043210;ENSRNOG00000010329;ENSRNOG000000050578;ENSRNOG00000011295;ENSRNOG00000008982;ENSRNOG00000000543;ENSRNOG00000020689;ENSRNOG00000015303;ENSRNOG00000002706;ENSRNOG00000059479;ENSRNOG000000007321;ENSRNOG000000010176;ENSRNOG000000033169;ENSRNOG00000004612;ENSRNOG00000016863;ENSRNOG0000000504418;ENSRNOG000000021269;ENSRNOG00000004060;ENSRNOG00000052795;ENSRNOG000000018712;ENSRNOG000000029785;ENSRNOG00000019161;ENSRNOG000000020401;ENSRNOG000000014187;ENSRNOG00000019721;ENSRNOG000000057321;ENSRNOG00000005639;ENSRNOG00000005402;ENSRNOG0000004890;ENSRNOG00000046085;ENSRNOG00000006831;ENSRNOG00000054782	45	0
5030	Cocaine addiction	ENSRNOG00000009146;ENSRNOG00000018666;ENSRNOG00000003793;ENSRNOG000000008017;ENSRNOG00000046667;ENSRNOG00000013171;ENSRNOG00000021685;ENSRNOG0000003742;ENSRNOG00000005519;ENSRNOG000000018526	10	0.01
4261	Adrenergic signaling in cardiomyocytes	ENSRNOG00000017002;ENSRNOG000000057221;ENSRNOG00000003031;ENSRNOG0000002934;ENSRNOG00000032473;ENSRNOG00000061304;ENSRNOG00000001597;ENSRNOG00000016452;ENSRNOG00000011227;ENSRNOG00000024952;ENSRNOG000000003276;ENSRNOG00000001285;ENSRNOG00000006087;ENSRNOG00000058866;ENSRNOG000000015049;ENSRNOG00000017154;ENSRNOG00000017786;ENSRNOG00000007290;ENSRNOG00000030269;ENSRNOG00000007090;ENSRNOG00000013147;ENSRNOG00000019738;ENSRNOG00000017060;ENSRNOG000000056228;ENSRNOG00000016143;ENSRNOG000000010240;ENSRNOG00000020263;ENSRNOG00000021102;ENSRNOG00000014900;ENSRNOG0000004026;ENSRNOG00000015269;ENSRNOG00000015222;ENSRNOG00000006931	33	0.01
4910	Insulin signaling pathway	ENSRNOG00000011397;ENSRNOG00000014693;ENSRNOG000000019730;ENSRNOG000000028733;ENSRNOG000000008088;ENSRNOG00000046790;ENSRNOG000000061527;ENSRNOG00000029028;ENSRNOG000000001142;ENSRNOG000000018788;ENSRNOG000000057134;ENSRNOG000000010171;ENSRNOG00000005376;ENSRNOG00000001571;ENSRNOG000000010381;ENSRNOG00000007104;ENSRNOG00000011295;ENSRNOG00000008982;ENSRNOG00000000543;ENSRNOG00000020689;ENSRNOG00000015303;ENSRNOG00000002706;ENSRNOG00000009085;ENSRNOG000000023509;ENSRNOG000000033821;ENSRNOG000000047247;ENSRNOG000000014316;ENSRNOG00000019529;ENSRNOG000000052343;ENSRNOG000000014366;ENSRNOG00000011375;ENSRNOG00000007400;ENSRNOG00000005711;ENSRNOG00000025792;ENSRNOG00000011470;ENSRNOG00000007583;ENSRNOG000000003463;ENSRNOG00000008030;ENSRNOG00000024101;ENSRNOG00000015894;ENSRNOG000000053869;ENSRNOG000000061499;ENSRNOG00000026235;ENSRNOG000000021090;ENSRNOG00000014485;ENSRNOG000000036964	46	0.01
4068	FoxO signaling pathway	ENSRNOG000000061851;ENSRNOG00000005802;ENSRNOG0000000032311;ENSRNOG000000047891;ENSRNOG000000018709;ENSRNOG00000014205;ENSRNOG0000004007014;ENSRNOG00000012928;ENSRNOG000000404266;ENSRNOG00000015371;ENSRNOG00000027547;ENSRNOG00000017905;ENSRNOG00000004090;ENSRNOG00000017808;ENSRNOG00000003373;ENSRNOG000000036663;ENSRNOG00000009820;ENSRNOG00000014829;ENSRNOG000000011951;ENSRNOG000000025443;ENSRNOG00000003261;ENSRNOG00000001623;ENSRNOG00000053804;ENSRNOG00000017190;ENSRNOG000000017417;ENSRNOG000000028330;ENSRNOG0000004392;ENSRNOG0000004709;ENSRNOG0000000027923	29	0.01
4925	Aldosterone synthesis and secretion	ENSRNOG000000060407;ENSRNOG000000060528;ENSRNOG000000009790;ENSRNOG000000032922;ENSRNOG000000027264;ENSRNOG00000033893;ENSRNOG000000016550;ENSRNOG00000016681;ENSRNOG000000058317;ENSRNOG00000017882;ENSRNOG000000015603;ENSRNOG00000016110;ENSRNOG00000005600;ENSRNOG0000001079	14	0.01
3013	RNA transport	ENSRNOG00000003673;ENSRNOG00000030628;ENSRNOG00000001456;ENSRNOG000000034168;ENSRNOG00000017447;ENSRNOG00000042879;ENSRNOG000000015332;ENSRNOG00000012046;ENSRNOG00000016423;ENSRNOG000000020457;ENSRNOG00000013977;ENSRNOG000000006467;ENSRNOG00000005890;ENSRNOG00000019746;ENSRNOG000000014999;ENSRNOG0000004727;ENSRNOG000000051480;ENSRNOG0000000796;ENSRNOG00000003424;ENSRNOG00000047185;ENSRNOG00000010455;ENSRNOG00000004588;ENSRNOG0000001815;ENSRNOG0000000006459;ENSRNOG0000000041789;ENSRNOG00000001733;ENSRNOG0000003765;ENSRNOG0000004332;ENSRNOG000000020477;ENSRNOG00000010117;ENSRNOG000000408733;ENSRNOG000000030247;ENSRNOG000000057550;ENSRNOG000000058327;ENSRNOG00000001253;ENSRNOG00000042458;ENSRNOG000000049326;ENSRNOG00000048282;ENSRNOG00000049505;ENSRNOG00000003979;ENSRNOG000000018761;ENSRNOG00000010218;ENSRNOG00000011876;ENSRNOG000000057464;ENSRNOG00000013746;ENSRNOG00000018033;ENSRNOG00000009275;ENSRNOG000000018564	48	0.01
4919	Thyroid hormone signaling pathway	ENSRNOG00000002832;ENSRNOG00000003679;ENSRNOG000000004068;ENSRNOG000000009740;ENSRNOG00000005606;ENSRNOG00000052017;ENSRNOG0000000805711;ENSRNOG0000003848;ENSRNOG0000000966;ENSRNOG000000032798;ENSRNOG00000001120;ENSRNOG000000055246;ENSRNOG00000032254;ENSRNOG00000048622;ENSRNOG00000003792	15	0.01
4711	Circadian rhythm - fly	ENSRNOG00000002456;ENSRNOG00000019383;ENSRNOG000000021027	3	0.01
4150	mTOR signaling pathway	ENSRNOG000000011341;ENSRNOG00000017198;ENSRNOG000000057078;ENSRNOG0000000009667;ENSRNOG00000006285;ENSRNOG00000020009;ENSRNOG00000017426;ENSRNOG00000070511;ENSRNOG000000037214;ENSRNOG00000006962;ENSRNOG000000014721;ENSRNOG00000001454;ENSRNOG00000027711;ENSRNOG000000054203	14	0.01
4070	Phosphatidylinositol signaling system	ENSRNOG00000021024;ENSRNOG000000060045;ENSRNOG00000007496;ENSRNOG000000022704;ENSRNOG00000001796;ENSRNOG000000027487;ENSRNOG00000000060609;ENSRNOG0000003033;ENSRNOG00000014436;ENSRNOG00000007472;ENSRNOG00000017635;ENSRNOG00000017660;ENSRNOG0000006197;ENSRNOG00000018946;ENSRNOG000000024112;ENSRNOG00000042255;ENSRNOG00000008392;ENSRNOG00000020361;ENSRNOG000000021265;ENSRNOG000000019361;ENSRNOG000000026128;ENSRNOG00000002040749;ENSRNOG00000056954;ENSRNOG0000001737;ENSRNOG000000010713;ENSRNOG00000020388;ENSRNOG00000017114;ENSRNOG00000016244;ENSRNOG00000013030;ENSRNOG000000005284;ENSRNOG00000009812;ENSRNOG00000011560;ENSRNOG000000016770;ENSRNOG000000019932;ENSRNOG00000005923;ENSRNOG00000016361;ENSRNOG000000023238	37	0.01
5210	Colorectal cancer	ENSRNOG00000016134;ENSRNOG00000015796;ENSRNOG000000021334;ENSRNOG000000033099	5	0.02
4931	Insulin resistance	ENSRNOG00000017640;ENSRNOG000000096400;ENSRNOG00000004100;ENSRNOG00000023951;ENSRNOG00000024711;ENSRNOG00000004110;ENSRNOG000000022373;ENSRNOG00000019504;ENSRNOG00000017822;ENSRNOG00000011739;ENSRNOG000000018457;ENSRNOG00000009902;ENSRNOG00000014478;ENSRNOG00000025679	14	0.02
5130	Pathogenic Escherichia coli infection	ENSRNOG00000047505;ENSRNOG000000060728;ENSRNOG000000010964;ENSRNOG00000018273;ENSRNOG00000003597;ENSRNOG00000017445;ENSRNOG00000010899;ENSRNOG00000035468;ENSRNOG00000008664;ENSRNOG00000017558	10	0.02
5203	Viral carcinogenesis	ENSRNOG00000020715;ENSRNOG000000056756;ENSRNOG00000004726;ENSRNOG000000046834;ENSRNOG00000012360;ENSRNOG00000018183;ENSRNOG00000005290;ENSRNOG00000012314;ENSRNOG00000023383;ENSRNOG00000015379;ENSRNOG000000052840;ENSRNOG000000050258;ENSRNOG0000001436;ENSRNOG00000018232;ENSRNOG00000018991;ENSRNOG00000026295;ENSRNOG00000032574;ENSRNOG00000001149;ENSRNOG000000026519;ENSRNOG00000002506;ENSRNOG00000004158;ENSRNOG00000000060663;ENSRNOG00000017960;ENSRNOG000000004388;ENSRNOG000000006785;ENSRNOG0000004776;ENSRNOG000000059382;ENSRNOG00000011931;ENSRNOG000000012716;ENSRNOG000000055991;ENSRNOG00000003762;ENSRNOG00000003951;ENSRNOG0000000009271;ENSRNOG000000015734;ENSRNOG000000056753;ENSRNOG000000019113;ENSRNOG000000019075;ENSRNOG00000046784;ENSRNOG0000001114;ENSRNOG000000006824;ENSRNOG00000059624;ENSRNOG00000055471;ENSRNOG00000025496;ENSRNOG00000019496;ENSRNOG00000034241;ENSRNOG000000056150;ENSRNOG000000051650;ENSRNOG00000019062;ENSRNOG00000009772;ENSRNOG00000019311;ENSRNOG00000017828;ENSRNOG000000008180;ENSRNOG00000023917;ENSRNOG00000018309;ENSRNOG00000031173;ENSRNOG00000008195;ENSRNOG000000021097;ENSRNOG00000037998;ENSRNOG00000015816	59	0.02
4330	Notch signaling pathway	ENSRNOG00000001004;ENSRNOG000000013850;ENSRNOG00000003239;ENSRNOG000000052025;ENSRNOG000000019338;ENSRNOG000000005879;ENSRNOG000000020194;ENSRNOG00000020867;ENSRNOG00000003268;ENSRNOG00000007443;ENSRNOG00000006770;ENSRNOG00000010124;ENSRNOG00000020848;ENSRNOG00000005882;ENSRNOG00000018719;ENSRNOG000000050848;ENSRNOG00000019154;ENSRNOG000000011397;ENSRNOG00000002753;ENSRNOG000000018356	20	0.02
5100	Bacterial invasion of epithelial cells	ENSRNOG00000002757;ENSRNOG000000043182;ENSRNOG00000002182;ENSRNOG000000000713;ENSRNOG00000007462;ENSRNOG000000049507;ENSRNOG000000018747;ENSRNOG00000009411;ENSRNOG00000013152;ENSRNOG00000007686;ENSRNOG000000020393;ENSRNOG00000009033;ENSRNOG00000002807	13	0.02
5132	Salmonella infection	ENSRNOG000000020299;ENSRNOG000000032070;ENSRNOG000000039754;ENSRNOG000000011077;ENSRNOG00000001678;ENSRNOG00000021526;ENSRNOG00000005810;ENSRNOG0000004668;ENSRNOG00000003975;ENSRNOG000000004131;ENSRNOG00000001061;ENSRNOG000000011317;ENSRNOG000000009700	13	0.02
5169	Epstein-Barr virus infection	ENSRNOG00000025731;ENSRNOG00000018584;ENSRNOG00000006355;ENSRNOG00000006559	4	0.02
4713	Circadian entrainment	ENSRNOG00000003348;ENSRNOG000000042929;ENSRNOG000000012524;ENSRNOG000000020557;ENSRNOG000000008951	5	0.03
511	Other glycan degradation	ENSRNOG000000036667;ENSRNOG000000056162;ENSRNOG000000028341;ENSRNOG000000027498;ENSRNOG000000003195	5	0.03
4932	Non-alcoholic fatty liver disease (NAFLD)	ENSRNOG00000010298;ENSRNOG00000014568;ENSRNOG000000020773;ENSRNOG000000052764;ENSRNOG000000030700;ENSRNOG00000046863;ENSRNOG00000002833;ENSRNOG00000006293;ENSRNOG0000001068;ENSRNOG00000011383;ENSRNOG00000017801;ENSRNOG00000007990;ENSRNOG00000016660;ENSRNOG00000017446;ENSRNOG00000004143;ENSRNOG000000023521;ENSRNOG00000002963;ENSRNOG000000025459;ENSRNOG000000016846;ENSRNOG00000003469;ENSRNOG000000027002;ENSRNOG000000017459;ENSRNOG00000022753;ENSRNOG000000056810;ENSRNOG00000009795;ENSRNOG000000031766;ENSRNOG00000004324;ENSRNOG00000019228;ENSRNOG000000038552;ENSRNOG00		