	GO results of n					Lupi	0
	Enrichment FDR		_		Pathway	URL	Genes
BP:GO - positively correlated only in human,ZEB2 (n = 1210)	1.8E-04	73			GO:0120036 plasma membrane bounded cell projection organization	http://amigo.gene	
	1.8E-04	114	2867	1.63	GO:0009653 anatomical structure morphogenesis	http://amigo.gene	
	1.8E-04	164	4617	1.45	GO:0048731 system development	http://amigo.gene	
	2.0E-04	73	1606	1.86	GO:0030030 cell projection organization	http://amigo.gene	MKS1,FRY
	1.7E-03	100	2618	1.56	GO:0007399 nervous system development	http://amigo.gene	FRYL,NRC
	4.7E-03	62	1449	1.75	GO:0030182 neuron differentiation	http://amigo.gene	FRYL,NRC
	1.3E-02	62	1522	1.67	GO:0048699 generation of neurons	http://amigo.gene	FRYL,NRC
	1.3E-02	84	2254	1.53	GO:0006928 movement of cell or subcellular component	http://amigo.gene	NRCAM,IT
	1.3E-02	69	1757	1.61	GO:0022008 neurogenesis	http://amigo.gene	FRYL,NRC
	1.9E-02	126	3774	1.37	GO:0048513 animal organ development	http://amigo.gene	FLT4,NRC
	2.0E-02	90	2509	1.47	GO:0051128 regulation of cellular component organization	http://amigo.gene	FZD5,CLE
	4.5E-02	80	2239	1.46	GO:0048468 cell development	http://amigo.gene	FRYL,NRC
	4.5E-02	141	4433	1.30	GO:0019219 regulation of nucleobase-containing compound metabolic process	http://amigo.gene	ALX4,EYA2
	4.8E-02	97	2847	1.39	GO:0035556 intracellular signal transduction	http://amigo.gene	GJA1,CAN
	4.9E-02	75	2086	1.47	GO:0009888 tissue development	http://amigo.gene	SIPA1L3,A
	4.9E-02	91	2642	1.41	GO:0008104 protein localization	http://amigo.gene	NPEPPS,F
	5.0E-02	97	2859	1.39	GO:0006366 transcription by RNA polymerase II	http://amigo.gene	ALX4,ZXD
	9.8E-03	29	491	2.68	GO:0007389 pattern specification process	http://amigo.gene	NPHP3,NP
	2.1E-02	11	102	4.89	GO:0043535 regulation of blood vessel endothelial cell migration	http://amigo.gene	PRCP,APC
	2.1E-02	18	262	3.11	GO:0060828 regulation of canonical Wnt signaling pathway	http://amigo.gene	XIAP,PLEK
	2.1E-02	47	1123	1.90	GO:0035295 tube development	http://amigo.gene	PRCP,JCA
	2.1E-02	89	2618	1.54	GO:0007399 nervous system development	http://amigo.gene	NDRG2,Ch
	2.1E-02	94	2805	1.52	GO:0009056 catabolic process	http://amigo.gene	GALC,MMI
	2.4E-02	12	130	4.18	GO:0043534 blood vessel endothelial cell migration	http://amigo.gene	PRCP,APC
	2.4E-02	65	1777	1.66	GO:0048585 negative regulation of response to stimulus	http://amigo.gene	SEMA3F,S
	2.4E-02	139	4617	1.36	GO:0048731 system development	http://amigo.gene	NDRG2,Ch
	2.5E-02	103	3210	1.45	GO:0009966 regulation of signal transduction	http://amigo.gene	†
	2.6E-02	9	84	4.85	GO:0014032 neural crest cell development	http://amigo.gene	SEMA3F,S
	2.6E-02	9	79	5.16	GO:0030330 DNA damage response signal transduction by p53 class mediator	http://amigo.gene	CDKN1A,F
	2.6E-02	10	98	4.62	GO:0014033 neural crest cell differentiation	http://amigo.gene	SEMA3F,S
	2.6E-02	12	148	3.67	GO:0009799 specification of symmetry	http://amigo.gene	NPHP3,NP
	2.6E-02	12	147	3.70	GO:0009855 determination of bilateral symmetry	http://amigo.gene	NPHP3,NP
	2.6E-02	17	257	3.00	GO:0048863 stem cell differentiation	http://amigo.gene	SEMA3E.S

http://amigo.gene WNT11,XIAP,PL 2.6E-02 19 317 2.72 GO:0060070 canonical Wnt signaling pathway 21 2.6E-02 368 2.59 GO:0016042 lipid catabolic process http://amigo.gene GALC,APOE,CP BP:GO - negatively correlated only in human, ZEB2 (n = 957) 2.6E-02 23 435 2.40 GO:0001503 ossification http://amigo.gene ITGA11,COL6A1 2.6E-02 27 550 2.22 GO:0002009 morphogenesis of an epithelium http://amigo.gene PLEKHA4,NPHF 52 1354 2.6E-02 GO:0009968 negative regulation of signal transduction http://amigo.gene PIK3IP1,EYA1,G 1.74 9 2.8E-02 89 GO:0014031 mesenchymal cell development http://amigo.gene SEMA3F,SEMA3 16 249 2.91 GO:0048762 mesenchymal cell differentiation 2.8E-02 http://amigo.gene SEMA3F,SEMA3 16 250 http://amigo.gene EYA1,LGALS3,T 2.8E-02 2.90 GO:2001234 negative regulation of apoptotic signaling pathway 2.8E-02 23 446 GO:0001667 ameboidal-type cell migration http://amigo.gene SEMA3F,SEMA3 45 1150 2.8E-02 1.77 GO:0072359 circulatory system development http://amigo.gene MEF2C,PDLIM4 2.8E-02 46 1189 1.75 GO:0009790 embryo development http://amigo.gene WHRN,SOBP,NF 9 2.9E-02 91 GO:0048864 stem cell development http://amigo.geneSEMA3F,SEMA3 30 2.9E-02 663 2.05 GO:0048729 tissue morphogenesis http://amigo.gene PLEKHA4,NPHF 16 257 3.0E-02 2.82 GO:0045926 negative regulation of growth http://amigo.gene SEMA3F,SEMA3 19 337 2.55 GO:0030111 regulation of Wnt signaling pathway http://amigo.gene XIAP,PLEKHA4, 3.0E-02 54 3.0E-02 1483 1.65 GO:0010648 negative regulation of cell communication http://amigo.gene PIK3IP1,EYA1,G 110 3615 http://amigo.gene HMOX1,NDFIP1 3.0E-02 1.38 GO:0023051 regulation of signaling 54 3.1E-02 1488 GO:0023057 negative regulation of signaling http://amigo.gene PIK3IP1,EYA1,G GO:1905114 cell surface receptor signaling pathway involved in cell-27 580 3.1E-02 2.11 cell signaling http://amigo.gene WNT11,XIAP,PL 37 3.1E-02 902 1.86 GO:0035239 tube morphogenesis http://amigo.gene PRCP,JCAD,GD 9 3.2E-02 96 4.25 GO:0060021 roof of mouth development http://amigo.gene SNAI2,WNT11,L 11 139 http://amigo.gene PLEKHA4,GDNF 3.2F-02 3.59 GO:2000027 regulation of animal organ morphogenesis 3.2E-02 109 3602 GO:0010646 regulation of cell communication http://amigo.gene HMOX1,NDFIP1 3.3E-02 20 377 2.40 GO:0003002 regionalization http://amigo.gene SOSTDC1,DDIT 11 3.5E-02 142 3.51 GO:0090090 negative regulation of canonical Wnt signaling pathway http://amigo.gene ANKRD6,DRAX 3.6E-02 93 2990 GO:0007166 cell surface receptor signaling pathway http://amigo.gene SEMA3F,BTN3A 27 4.2E-02 600 2.04 GO:0051272 positive regulation of cellular component movement http://amigo.gene SEMA3F,CD99, 4.3E-02 75 2312 GO:1901575 organic substance catabolic process http://amigo.gene GALC,COMT,RN 1.47 126 4.5E-02 4338 1.32 GO:0048583 regulation of response to stimulus http://amigo.gene HMOX1,NDFIP1 4.7E-02 13 199 2.96 GO:0030308 negative regulation of cell growth http://amigo.geneSEMA3F,SEMA3 20 4.7E-02 395 2.29 GO:2001233 regulation of apoptotic signaling pathway http://amigo.gene EYA1,LGALS3,T 28 4.7E-02 641 GO:0048598 embryonic morphogenesis WHRN.SOBP.NF http://amigo.gene 4.7E-02 77 2402 GO:0044248 cellular catabolic process http://amigo.gene GALC,COMT,RN 169 1.42 GO:0071702 organic substance transport http://amigo.gene USP36,PINK1,U 1.8E-04 2618 163 http://amigo.gene USP36,CDKL3,F 1.9E-04 2509 1.43 GO:0051128 regulation of cellular component organization

2.3E-04	255	4309	1.31	GO:0010556 regulation of macromolecule biosynthetic process	http://amigo.gene	ZNF195,ETV1,T
				GO:0019219 regulation of nucleobase-containing compound		, ,
3.3E-04	260	4433	1.29	metabolic process	http://amigo.gene	ZNF195,ETV1,TI
5.9E-04	242	4112	1.30	GO:0051252 regulation of RNA metabolic process	http://amigo.gene	ZNF195,ETV1,TI
6.1E-04	270	4676	1.27	GO:1901362 organic cyclic compound biosynthetic process	http://amigo.gene	NCBP1,ZNF195,
6.9E-04	228	3847	1.31	GO:0010604 positive regulation of macromolecule metabolic process	http://amigo.gene	RNF14,BCLAF1,
7.4E-04	261	4513	1.28	GO:0019438 aromatic compound biosynthetic process	http://amigo.gene	NCBP1,ZNF195,
8.5E-04	244	4181	1.29	GO:0009893 positive regulation of metabolic process	http://amigo.gene	ABHD5,RNF14,E
8.8E-04	256	4425	1.28	GO:0034654 nucleobase-containing compound biosynthetic process	http://amigo.gene	NCBP1,ZNF195,
1.1E-03	259	4503	1.27	GO:0018130 heterocycle biosynthetic process	http://amigo.gene	NCBP1,ZNF195,
1.3E-03	172	2795	1.36	GO:0051246 regulation of protein metabolic process	http://amigo.gene	DBNDD1,RNF14
1.6E-03	214	3630	1.30	GO:0044085 cellular component biogenesis	http://amigo.gene	SMARCA5,EHD
2.2E-03	228	3936	1.28	GO:0006351 transcription DNA-templated	http://amigo.gene	NCBP1,ZNF195,
2.2E-03	228	3937	1.28	GO:0097659 nucleic acid-templated transcription	http://amigo.gene	NCBP1,ZNF195,
2.8E-03	228	3957	1.27	GO:0032774 RNA biosynthetic process	http://amigo.gene	NCBP1,ZNF195,
3.6E-03	172	2867	1.32	GO:0009653 anatomical structure morphogenesis	http://amigo.gene	CDKL3,NEDD4L
3.6E-03	219	3797	1.27	GO:0006355 regulation of transcription DNA-templated	http://amigo.gene	ZNF195,ETV1,TI
3.6E-03	219	3798	1.27	GO:1903506 regulation of nucleic acid-templated transcription	http://amigo.gene	ZNF195,ETV1,TI
3.9E-03	162	2680	1.33	GO:0050793 regulation of developmental process	http://amigo.gene	CDKL3,WWC3,N
3.9E-03	219	3807	1.27	GO:2001141 regulation of RNA biosynthetic process	http://amigo.gene	ZNF195,ETV1,TI
6.3E-03	191	3283	1.28	GO:0009892 negative regulation of metabolic process	http://amigo.gene	DBNDD1,TIMP2
1.0E-02	265	4823	1.21	GO:0006810 transport	http://amigo.gene	VPS18,USP36,P
1.1E-02	245	4424	1.22	GO:0006950 response to stress	http://amigo.gene	MYH9,RAD52,SI
1.2E-02	167	2859	1.29	GO:0006366 transcription by RNA polymerase II	http://amigo.gene	NCBP1,ETV1,TF
1.2E-02	272	4987	1.20	GO:0051234 establishment of localization	http://amigo.gene	VPS18,USP36,P
1.2E-02	254	4617	1.21	GO:0048731 system development	http://amigo.gene	HSPA5,MAPKAF
1.3E-02	174	3005	1.28	GO:0006796 phosphate-containing compound metabolic process	http://amigo.gene	DBNDD1,CDKL3
1.3E-02	161	2748	1.29	GO:0031324 negative regulation of cellular metabolic process	http://amigo.gene	DBNDD1,TIMP2
1.4E-02	175	3030	1.27	GO:0006793 phosphorus metabolic process	http://amigo.gene	DBNDD1,CDKL3
1.5E-02	176	3057	1.27	GO:0010605 negative regulation of macromolecule metabolic process	http://amigo.gene	DBNDD1,TIMP2
1.5E-02	188	3300	1.26	GO:0070887 cellular response to chemical stimulus	http://amigo.gene	HSPA5,SYT1,TG
1.8E-02	190	3356	1.25	GO:0065009 regulation of molecular function	http://amigo.gene	DBNDD1,GCLM
2.5E-02	184	3269	1.24	GO:0010033 response to organic substance	http://amigo.gene	TIMP2,HSPA5,T
4.2E-02	222	4103	1.19	GO:0065008 regulation of biological quality	http://amigo.gene	VPS18,MYH9,CI
1.1E-05	266	4338	1.35	GO:0048583 regulation of response to stimulus	http://amigo.gene	ECT2,GPR89A,S
1.1E-07	273	4206	1.43	GO:0006996 organelle organization	http://amigo.gene	SMARCA5,USP3
1.3E-05	188	2847	1.46	GO:0035556 intracellular signal transduction	http://amigo.gene	ECT2,GPR89A,S

	1.4E-05	217	3403	1 41	GO:0051173 positive regulation of nitrogen compound metabolic process	http://amigo.gen	RNF14,BCLAF1,
	1.6E-11	277	3952		GO:0036211 protein modification process		DBNDD1,CDKL3
	1.6E-11	291	4206		GO:0043412 macromolecule modification		DBNDD1,CDKL3
	1.9E-11	275	3932	1.54	GO:0006464 cellular protein modification process		DBNDD1,CDKL3
	2.0E-06	182	2642	1.52	GO:0008104 protein localization	http://amigo.gen	USP36,CCT4,PI
	2.1E-06	233	3602	1.43	GO:0010646 regulation of cell communication	http://amigo.gen	VPS18,ECT2,GF
	3.0E-05	162	2402	1.49	GO:0044248 cellular catabolic process	http://amigo.gen	USP36,UBE3C,A
	5.6E-07	212	3133	1.49	GO:0033036 macromolecule localization	http://amigo.gen	USP36,CCT4,PI
	6.3E-05	224	3617	1.37	GO:0031325 positive regulation of cellular metabolic process	http://amigo.gen	ABHD5,RNF14,E
	6.3E-05	268	4482	1.32	GO:0031326 regulation of cellular biosynthetic process	http://amigo.gen	ZNF195,ETV1,T
	6.5E-05	271	4545	1.32	GO:0009889 regulation of biosynthetic process	http://amigo.gene	ZNF195,ETV1,TI
	7.4E-06	204	3120	1.44	GO:0051641 cellular localization	http://amigo.gene	VPS18,USP36,C
	7.8E-05	181	2805	1.42	GO:0009056 catabolic process	http://amigo.gene	USP36,UBE3C,A
	8.8E-07	215	3210	1.48	GO:0009966 regulation of signal transduction	http://amigo.gen	ECT2,GPR89A,\$
	8.8E-07	236	3615	1.44	GO:0023051 regulation of signaling	http://amigo.gen	VPS18,ECT2,GF
				·			
<u> </u>	3.1E-03	203	4823	1.32	GO:0006810 transport	http://amigo.gen	ITGB3,HTRA2,C
BP:GO	4.6E-03	193	4617		GO:0048731 system development	http://amigo.gen	TNMD,ITGA2B,0
ВР	4.6E-03	206	4987	1.30	GO:0051234 establishment of localization	http://amigo.gene	ITGB3,HTRA2,C