## EnrichmentHsSymbolsFile2 Top pathways by non-permulation

Geneset	stat	num.genes	pval	p.adj	gene.vals
REACTOME_OLFACTORY_SIGNALING_PATHWAY	-0.18388698	116	8.223e-12	5.335e-08	OR1J1:7 OR2C3:8 OR52M1:13 OR10G3:16 OR52W1:27 OR4D1:30
REACTOME_SENSORY_PERCEPTION	-0.10729567	308	1.066e-10	3.460e-07	GUCA1B:4 OR1J1:7 OR2C3:8 OR52M1:13 OR10G3:16 OPN1SW:20
KEGG_OLFACTORY_TRANSDUCTION	-0.14318059	130	1.791e-08	3.873e-05	GUCA1B:4 OR1J1:7 OR2C3:8 OR52M1:13 OR10G3:16 OR52W1:27
REACTOME_PEROXISOMAL_LIPID_METABOLISM	0.22815763	29	2.118e-05	3.435e-02	ACOX3:1 PHYH:55 ACOX2:152 EHHADH:165 SCP2:244 ACOT4:478
NIKOLSKY_BREAST_CANCER_16P13_AMPLICON	0.12152914	99	2.978e-05	3.864e-02	RPUSD1:74 CHTF18:89 WDR24:90 RAB11FIP3:167 BAIAP3:226 PKD1:227
KEGG_COMPLEMENT_AND_COAGULATION_CASCADES	0.15205824	59	5.388e-05	5.827e-02	F11:24 C1QA:98 F8:181 CR2:274 CPB2:282 CD59:314
WP_COMPLEMENT_SYSTEM	0.13186460	74	8.859e-05	8.211e-02	ITGA2B:8 F11:24 C5AR2:104 LAMA5:176 CR2:274 CD59:314
REACTOME_COMPLEMENT_CASCADE	0.17519764	41	1.041e-04	8.445e-02	C1QA:98 C5AR2:104 CR2:274 CPB2:282 CD59:314 C1QC:335
HOUNKPE_HOUSEKEEPING_GENES	-0.03499021	996	2.161e-04	1.143e-01	RANGAP1:2 ST13:28 PTRH2:43 PWP1:58 HSP90AB1:59 NAP1L1:89
REACTOME_NEURONAL_SYSTEM	-0.05546840	373	2.467e-04	1.143e-01	GRM5:33 GRIK3:57 ADCY6:98 CACNA1B:100 GRIN2C:108 LRFN2:118
REACTOME_DEVELOPMENTAL_BIOLOGY	-0.03827895	855	1.646e-04	1.143e-01	NR5A1:47 DPYSL5:52 HSP90AB1:59 RBPJ:61 SEMA6D:73 DSP:92
KIM_ALL_DISORDERS_OLIGODENDROCYTE_NUMBER	-0.04246825	654	2.320e-04	1.143e-01	MADD:24 SLC20A1:56 B3GAT1:113 STX1A:129 ATG9A:179 DAZAP2:196
KEGG_STEROID_HORMONE_BIOSYNTHESIS	0.20464995	28	1.784e-04	1.143e-01	CYP7B1:300 HSD17B1:330 CYP1A1:344 CYP17A1:384 CYP11A1:476 SRD5A2:601
PID_FANCONI_PATHWAY	0.16139784	44	2.129e-04	1.143e-01	BRCA2:10 RAD17:97 BRIP1:308 ATM:475 FANCM:491 FANCA:568
KAUFFMANN_DNA_REPAIR_GENES	0.07284596	208	3.008e-04	1.301e-01	BRCA2:10 POLA2:30 DCLRE1A:45 TP53BP1:67 RAD17:97 TEP1:116
REACTOME_IMMUNOREGULATORY_INTERACTIONS_B	0.12571798	67	3.753e-04	1.318e-01	SLAMF6:12 TREML2:169 SLAMF7:184 ITGA4:474 TREM1:534 CD34:567
REACTOME_FANCONI_ANEMIA_PATHWAY	0.17381728	35	3.737e-04	1.318e-01	DCLRE1A:45 SLX4:285 FANCM:491 FANCA:568 FANCL:738 FANCI:746
REACTOME_DISEASES_OF_DNA_REPAIR	0.14630062	49	3.974e-04	1.318e-01	BRCA2:10 RAD17:97 WRN:120 BRIP1:308 PMS2:350 NEIL3:407
WP_DEGRADATION_PATHWAY_OF_SPHINGOLIPIDS_	0.25947438	16	3.264e-04	1.318e-01	LIPA:70 GLB1:79 NEU2:234 GALC:307 HEXB:433 GM2A:626
BLALOCK_ALZHEIMERS_DISEASE_DN	-0.03191722	1093	4.266e-04	1.318e-01	PTRH2:43 REEP2:48 HSP90AB1:59 STX1A:129 GLT8D1:153 CNR1:170
KEGG_HEMATOPOIETIC_CELL_LINEAGE	0.12103557	71	4.241e-04	1.318e-01	ITGA2B:8 CR2:274 CD59:314 ITGA2:468 ITGA4:474 CD5:515
KIM_BIPOLAR_DISORDER_OLIGODENDROCYTE_DEN	-0.04297601	574	4.661e-04	1.375e-01	PRSS3:25 B3GAT1:113 STX1A:129 GRN:151 CCNI:162 DAZAP2:196
MARSON_BOUND_BY_E2F4_UNSTIMULATED	0.04051534	629	5.665e-04	1.598e-01	BRCA2:10 MCPH1:16 NPHP4:36 GABPB2:56 SKA3:58 HJURP:60
WP_STEROID_BIOSYNTHESIS	0.32926706	9	6.245e-04	1.688e-01	HSD17B1:330 CYP17A1:384 HSD17B4:496 HSD3B2:901 F13B:1012 HSD17B2:1028
WP_COMPLEMENT_AND_COAGULATION_CASCADES	0.13866128	50	6.967e-04	1.808e-01	C1QA:98 F8:181 CR2:274 CPB2:282 C1QC:335 C1S:398
BIOCARTA_BBCELL_PATHWAY	0.36855862	7	7.328e-04	1.829e-01	FAS:113 CD4:603 CD28:700 CD40LG:1090 CD40:1379 HLA-DRA:1727
WP_STEROID_HORMONE_PRECURSOR_BIOSYNTHESI	0.36563388	7	8.075e-04	1.940e-01	CYP17A1:384 CYP11A1:476 SRD5A2:601 HSD3B2:901 CYP21A2:1182 SRD5A1:2400
WP_MRNA_VACCINE_ACTIVATION_OF_DENDRITIC_	0.35838239	7	1.024e-03	2.373e-01	IRF7:228 TLR8:368 IRF3:618 IFIH1:1564 TNFRSF11A:1689 TLR3:2266
BIOCARTA_LYM_PATHWAY	0.27005721	12	1.198e-03	2.681e-01	PECAM1:295 ITGA4:474 CD34:567 ICAM2:990 VCAM1:1052 ITGAL:1348
FLORIO_NEOCORTEX_BASAL_RADIAL_GLIA_DN	0.06969291	176	1.451e-03	3.036e-01	BRCA2:10 SKA3:58 HJURP:60 CDCA2:77 GTSE1:114 CKAP2:126
WP_DNA_IRDAMAGE_AND_CELLULAR_RESPONSE_VI	0.10596156	76	1.413e-03	3.036e-01	BRCA2:10 MCPH1:16 DCLRE1A:45 TP53BP1:67 RAD17:97 WRN:120
REACTOME_PEROXISOMAL_PROTEIN_IMPORT	0.12179522	56	1.625e-03	3.294e-01	ACOX3:1 DDO:31 PHYH:55 ACOX2:152 EHHADH:165 SCP2:244
REACTOME_HDR_THROUGH_HOMOLOGOUS_RECOMBIN	0.11536766	62	1.687e-03	3.317e-01	BRCA2:10 RAD17:97 WRN:120 SLX4:285 BRIP1:308 ATM:475
ZHAN_MULTIPLE_MYELOMA_DN	0.16049343	31	1.986e-03	3.682e-01	ITGA2B:8 CTSH:69 LIPA:70 SMPDL3A:160 A2M:529 PF4V1:564
WP_CIRCADIAN_RHYTHM_GENES	-0.06680554	181	1.968e-03	3.682e-01	SIN3A:21 ZFHX3:55 SFTPC:60 OPRL1:75 HCRTR1:165 SIX3:167
REACTOME_HOMOLOGOUS_DNA_PAIRING_AND_STRA	0.13889507	41	2.094e-03	3.773e-01	BRCA2:10 RAD17:97 WRN:120 BRIP1:308 ATM:475 TOPBP1:666
REACTOME_FORMATION_OF_FIBRIN_CLOT_CLOTTI	0.14742191	36	2.210e-03	3.817e-01	F11:24 F8:181 F9:399 F12:518 A2M:529 PF4V1:564
KEGG_CYTOKINE_CYTOKINE_RECEPTOR_INTERACT	0.06160907	208	2.235e-03	3.817e-01	IL10RA:51 OSMR:109 FAS:113 TNFRSF19:119 TNFRSF8:194 CX3CR1:311
BENPORATH_ES_WITH_H3K27ME3	-0.02901315	964	2.519e-03	3.890e-01	DPYSL5:52 ZFHX3:55 GRIK3:57 SFTPC:60 VSX2:72 SEMA6D:73
REACTOME_BETA_OXIDATION_OF_PRISTANOYL_CO	0.29084691	9	2.515e-03	3.890e-01	ACOX3:1 ACOX2:152 SCP2:244 HSD17B4:496 CROT:806 AMACR:1171