## EnrichmentHsSymbolsFile2 Top pathways by non-permulation

Geneset	stat	num.genes	pval	p.adj	gene.vals
REACTOME_SIGNALING_BY_GPCR	-0.07377460	629		2.195e-06	ARHGEF12:11 VIPR1:24 ADCY1:43 CXCR5:46 GRM2:63 FGD3:77
REACTOME_CLASS_A_1_RHODOPSIN_LIKE_RECEPT	-0.09903491	294		1.068e-05	CXCR5:46 TAC1:132 CHRM2:144 PLPPR4:152 NTSR1:153 UTS2R:167
REACTOME_MUSCLE_CONTRACTION	-0.12223484	190	6.586e-09	1.068e-05	RYR2:32 SCN9A:44 LMOD1:57 HIPK1:60 ITPR1:117 ITGA1:119
REACTOME_GPCR_LIGAND_BINDING	-0.08525270	396	6.537e-09	1.068e-05	VIPR1:24 CXCR5:46 GRM2:63 TAC1:132 CHRM2:144 GRM6:148
KEGG_NEUROACTIVE_LIGAND_RECEPTOR_INTERAC	-0.10117404	259	2.223e-08	2.885e-05	VIPR1:24 GRM2:63 CHRM2:144 GRM6:148 NTSR1:153 UTS2R:167
MIKKELSEN_MEF_HCP_WITH_H3K27ME3	-0.06859299	555	3.837e-08	4.149e-05	CNTN4:26 RYR2:32 CSMD1:62 UGT8:65 APBA2:91 DSCAML1:98
REACTOME_NEURONAL_SYSTEM	-0.08049448	385	6.522e-08	6.045e-05	ADCY1:43 KCNA10:79 APBA2:91 KCNJ12:139 KCNV2:151 KCNJ14:158
REACTOME_CARDIAC_CONDUCTION	-0.14046100	121	9.739e-08	7.898e-05	RYR2:32 SCN9A:44 HIPK1:60 ITPR1:117 KCNJ12:139 KCNJ14:158
NIKOLSKY_BREAST_CANCER_8P12_P11_AMPLICON	0.20371628	52	3.769e-07	2.717e-04	ANK1:5 IDO2:9 RAB11FIP1:79 ADAM9:124 ADGRA2:251 STAR:288
WP_GPCRS_CLASS_A_RHODOPSINLIKE	-0.10093792	206	6.180e-07	4.010e-04	CXCR5:46 CHRM2:144 NTSR1:153 MAS1:228 DRD2:296 DRD5:418
REACTOME_POTASSIUM_CHANNELS	-0.14998331	91	7.741e-07	4.566e-04	KCNA10:79 KCNJ12:139 KCNV2:151 KCNJ14:158 KCNQ3:168 KCNF1:320
REACTOME_PEPTIDE_LIGAND_BINDING_RECEPTOR	-0.10943447	166	1.184e-06	6.401e-04	CXCR5:46 TAC1:132 NTSR1:153 UTS2R:167 QRFPR:223 NPS:388
BENPORATH_ES_WITH_H3K27ME3	-0.04565189	983	1.579e-06	7.089e-04	HSF4:19 CSF1:51 PHLDB1:53 LMOD1:57 CSMD1:62 SYT6:71
REACTOME_G_ALPHA_I_SIGNALLING_EVENTS	-0.08546827	269	1.478e-06	7.089e-04	ADCY1:43 CXCR5:46 GRM2:63 ITPR1:117 CHRM2:144 GRM6:148
BLALOCK_ALZHEIMERS_DISEASE_DN	-0.04212956	1165	1.639e-06	7.089e-04	UAP1:1 NOS1AP:2 LRRN3:7 HERC2:13 SYNJ1:34 CHL1:76
MEISSNER_NPC_HCP_WITH_H3K4ME2_AND_H3K27M	-0.07198866	331	7.157e-06	2.902e-03	VIPR1:24 RYR2:32 TMEM132E:97 DSCAML1:98 ZNF536:112 BNC1:192
NIKOLSKY_BREAST_CANCER_16P13_AMPLICON	0.12789472	100	1.005e-05	3.834e-03	PGAP6:283 ZNF213:465 SPSB3:474 EME2:495 RHBDL1:560 WDR90:796
KIM_ALL_DISORDERS_CALB1_CORR_UP	-0.05625354	528	1.073e-05	3.867e-03	VIPR1:24 CAMSAP2:30 RYR2:32 SYNJ1:34 CHL1:76 SORL1:89
REACTOME_VOLTAGE_GATED_POTASSIUM_CHANNEL	-0.18802724	42	2.493e-05	8.087e-03	KCNA10:79 KCNV2:151 KCNQ3:168 KCNF1:320 KCNAB1:469 KCNV1:509
WP_CALCIUM_REGULATION_IN_CARDIAC_CELLS	-0.10464872	137	2.395e-05	8.087e-03	RYR2:32 ADCY1:43 ITPR1:117 GJA8:142 CHRM2:144 CAMK2D:163
BENPORATH_SUZ12_TARGETS	-0.04087393	918	3.140e-05	9.700e-03	HSF4:19 CSF1:51 PHLDB1:53 CSMD1:62 SYT6:71 BRINP3:94
CHEN_LIVER_METABOLISM_QTL_CIS	-0.13079141	84	3.454e-05	1.018e-02	UAP1:1 DDR2:31 NAV1:52 CEP170:111 ADAMTS4:135 CDH19:171
REACTOME_TRNA_MODIFICATION_IN_THE_NUCLEU	0.19064602	39	3.804e-05	1.073e-02	THADA:106 TRMT10A:155 TRMT1:376 TRMT5:391 CTU2:427 TYW1:468
REACTOME_NERVOUS_SYSTEM_DEVELOPMENT	-0.05038394	550	5.794e-05	1.566e-02	ARHGEF12:11 ANK2:15 SCN9A:44 CHL1:76 DNM3:81 DSCAML1:98
REACTOME_PHASE_0_RAPID_DEPOLARISATION	-0.20537962	31	7.583e-05	1.968e-02	SCN9A:44 CAMK2D:163 CAMK2B:230 SCN3B:279 SCN2B:436 SCN1A:450
REACTOME_SIGNALING_BY_RECEPTOR_TYROSINE_	-0.05087542	503	1.007e-04	2.513e-02	DNM3:81 BAIAP2:100 ITPR1:117 WWP1:125 PTK2B:136 ARC:143
STARK_HYPPOCAMPUS_22Q11_DELETION_UP	-0.15884704	49	1.202e-04	2.805e-02	OLFML2B:102 FJX1:129 NETO1:180 PEAK1:217 EPAS1:922 CNTNAP1:957
MIKKELSEN_MCV6_HCP_WITH_H3K27ME3	-0.05494735	419	1.211e-04	2.805e-02	SYT6:71 TMEM132E:97 PCNX2:115 HS3ST2:118 NTSR1:153 KCNQ3:168
BENPORATH_EED_TARGETS	-0.03714603	928	1.432e-04	3.000e-02	HSF4:19 CSMD1:62 SORCS2:69 BRINP3:94 TMEM132E:97 DSCAML1:98
LIU_OVARIAN_CANCER_TUMORS_AND_XENOGRAFTS	-0.03142787	1337	1.400e-04	3.000e-02	LRRN3:7 TSHZ3:8 CNTN3:12 CNTN4:26 SYNPO2:28 DDR2:31
REACTOME_G_ALPHA_S_SIGNALLING_EVENTS	-0.09522959	134	1.434e-04	3.000e-02	VIPR1:24 ADCY1:43 NPS:388 DRD5:418 VIPR2:427 CRHR1:549
NIKOLSKY_BREAST_CANCER_15Q26_AMPLICON	-0.24486438	20	1.501e-04	3.043e-02	ARRDC4:38 SYNM:253 CHSY1:419 PCSK6:530 ALDH1A3:538 IGF1R:621
KIM_ALL_DISORDERS_OLIGODENDROCYTE_NUMBER	-0.04207277	704		3.089e-02	CHL1:76 SORL1:89 APBA2:91 DOCK4:96 TAC1:132 PPFIA4:214
SERVITJA_ISLET_HNF1A_TARGETS_UP	-0.08773145	149		4.246e-02	CSF1:51 CHL1:76 DNM3:81 ZFHX4:147 ACOT7:240 COL3A1:287
DAZARD_RESPONSE_TO_UV_NHEK_DN	0.06356511	284		4.373e-02	DST:57 BPTF:69 GSE1:145 TMEM131L:163 AKAP9:181 ASXL1:206
KEGG_PURINE_METABOLISM	-0.08623413	149		5.128e-02	ADCY1:43 PDE5A:220 PDE6B:258 PDE1C:306 ALLC:425 CANT1:446
NIKOLSKY_BREAST_CANCER_20Q12_Q13_AMPLICO	-0.09258674	128		5.292e-02	MYT1:37 NTSR1:153 RTEL1:221 PHACTR3:280 ZBTB46:400 TFAP2C:490
MIKKELSEN_NPC_HCP_WITH_H3K27ME3	-0.05773962	331		5.424e-02	VIPR1:24 RYR2:32 TMEM132E:97 DSCAML1:98 ZNF536:112 BNC1:192
NIKOLSKY BREAST CANCER 8Q12 Q22 AMPLICON	-0.09404219	122		5.584e-02	TMEM64:20 MMP16:95 RBM12B:138 ZFHX4:147 NECAB1:215 OSGIN2:242
WP_PRADERWILLI_AND_ANGELMAN_SYNDROME	-0.13833289	56			HERC2:13 GABRR1:342 GABRA5:416 GABRB3:630 UBE3A:689 GABRG3:740
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