

# EnrichmentHsSymbolsFile2 Top pathways by non-permutation

Geneset	stat	num.genes	pval	p.adj	gene.vals
NIKOLSKY_BREAST_CANCER_16P13_AMPLICON	0.16680052	99	1.002e-08	6.498e-05	EME2:9 TELO2:158 PKD1:166 WFIKKN1:172 WDR90:176 TBL3:277
BLALOCK_ALZHEIMERS_DISEASE_DN	-0.04984205	1093	3.767e-08	8.148e-05	CHL1:3 HERC2:10 LRRN3:16 LTN1:31 BHLHE40:40 PHTF1:44
KIM_ALL_DISORDERS_CALB1_CORR_UP	-0.07347183	492	2.789e-08	8.148e-05	CHL1:3 CAMSAP2:34 BHLHE40:40 ATP1B1:49 AKR1B1:77 AHSA1:80
BENPORATH_ES_WITH_H3K27ME3	-0.04234500	964	1.037e-05	1.683e-02	CACNA1B:26 CALCR:78 LMOD1:88 KCNV1:95 VAV3:98 BRINP3:107
KIM_ALL_DISORDERS_OLIGODENDROCYTE_NUMBER	-0.04896850	654	2.189e-05	2.840e-02	CHL1:3 PPFA4:39 KIF21B:52 AKR1B1:77 AHSA1:80 PRR3:82
KAUFFMANN_DNA_REPAIR_GENES	0.08393894	208	3.114e-05	3.367e-02	TEP1:8 PRKDC:48 POLK:61 ERCC5:125 MBD4:131 DCLRE1C:232
REACTOME_DNA_DOUBLE_STRAND_BREAK_REPAIR	0.10333494	129	5.156e-05	4.779e-02	EME2:9 PRKDC:48 POLK:61 SLX4:66 DCLRE1C:232 POLH:317
DIAZ_CHRONIC_MYELOGENOUS_LEUKEMIA_UP	-0.03384785	1247	7.218e-05	5.203e-02	KDM5B:15 BLMH:55 URI1:81 VAV3:98 ZNF277:116 SREBF1:135
KEGG_NEUROACTIVE_LIGAND_RECEPTOR_INTERAC	-0.07190274	259	7.052e-05	5.203e-02	CALCR:78 VIPR2:102 GZMA:118 HRH2:124 CHRM2:245 PTH1R:248
BENPORATH_EED_TARGETS	-0.03776854	901	1.388e-04	6.927e-02	CACNA1B:26 CALCR:78 URI1:81 ANKRD9:83 KCNV1:95 VIPR2:102
BENPORATH_PRC2_TARGETS	-0.04748258	569	1.180e-04	6.927e-02	CACNA1B:26 KCNV1:95 BRINP3:107 VASH1:156 CLCN5:167 CDKN2C:173
NIKOLSKY_BREAST_CANCER_16Q24_AMPLICON	0.16396499	46	1.199e-04	6.927e-02	ANKRD11:7 CTU2:21 SNAI3:57 CBFA2T3:71 ACSF3:102 PIEZO1:118
WP_DNA_REPAIR_PATHWAYS_FULL_NETWORK	0.10397984	113	1.363e-04	6.927e-02	PRKDC:48 POLK:61 ERCC5:125 MBD4:131 DCLRE1C:232 POLH:317
REACTOME_ADAPTIVE_IMMUNE_SYSTEM	-0.04433478	619	1.817e-04	8.419e-02	WWP1:7 HERC2:10 SEC24D:21 LTN1:31 VCAM1:50 BLMH:55
NIKOLSKY_BREAST_CANCER_8Q12_Q22_AMPLICON	-0.09724968	118	2.671e-04	1.083e-01	SLC26A7:9 MMP16:22 TMEM64:33 GDAP1:58 OSGIN2:60 GEM:134
MATHEW_FANCONI_ANEMIA_GENES	0.31834153	11	2.561e-04	1.083e-01	BRIP1:606 BRCA2:828 FANCG:1092 FANCE:1166 FANCM:1537 FANCA:1652
BENPORATH_SUZ12_TARGETS	-0.03586074	898	3.036e-04	1.112e-01	CYP4X1:11 CACNA1B:26 KCNV1:95 VIPR2:102 BRINP3:107 SLC12A5:125
KIM_BIPOLAR_DISORDER_OLIGODENDROCYTE_DEN	-0.04430895	574	3.086e-04	1.112e-01	CHL1:3 CAMSAP2:34 AKR1B1:77 AHSA1:80 ALAS1:150 SLC25A12:187
REACTOME_SIGNALING_BY_RECEPTOR_TYROSINE_	-0.04793795	478	3.520e-04	1.202e-01	WWP1:7 BAX:43 SIN3A:48 VAV3:98 ATP6V0D2:136 DNM3:139
WP_PRADERWILLI_AND_ANGELMAN_SYNDROME	-0.13867321	54	4.255e-04	1.204e-01	HERC2:10 ATP10A:18 UBE3A:117 CDKN2C:173 TUBGCP5:286 GABRA5:305
WP_ALLOGRAFT_REJECTION	-0.12224223	70	4.082e-04	1.204e-01	HLA-DOB:157 CXCL13:191 TNF:209 CCL21:429 CD86:653 ABCB1:666
WP_NONHOMOLOGOUS_END_JOINING	0.32171763	10	4.267e-04	1.204e-01	PRKDC:48 DCLRE1C:232 NHEJ1:749 LIG4:935 WRN:1141 XRCC5:2373
WP_CALCIIUM_REGULATION_IN_CARDIAC_CELLS	-0.09133176	126	4.052e-04	1.204e-01	CACNA1B:26 ATP1B1:49 RYR2:121 GJA8:235 CHRM2:245 CACNA1S:264
REACTOME_TRNA_MODIFICATION_IN_THE_NUCLEU	0.16152459	39	4.834e-04	1.307e-01	CTU2:21 THADA:194 NSUN6:612 TRMT44:638 ALKBH8:683 TRMT1:756
REACTOME_DNA_REPAIR	0.06111750	271	5.516e-04	1.432e-01	EME2:9 PRKDC:48 POLK:61 SLX4:66 USP10:98 ERCC5:125
WP_PHOTODYNAMIC_THERAPYINDUCED_AP1_SURVI	-0.14242815	48	6.429e-04	1.604e-01	BAX:43 TNFSF10:74 MAP2K3:202 TNF:209 CCNE1:234 FOS:672
REACTOME_GPCR_LIGAND_BINDING	-0.04959680	394	7.620e-04	1.748e-01	CALCR:78 VIPR2:102 HRH2:124 CXCL13:191 CHRM2:245 PTH1R:248
REACTOME_RESOLUTION_OF_D_LOOP_STRUCTURES	0.17207352	32	7.563e-04	1.748e-01	EME2:9 SLX4:66 BRIP1:606 BRCA1:653 EME1:660 SPIDR:740
REACTOME_HOMOLOGY_DIRECTED_REPAIR	0.09681800	101	7.811e-04	1.748e-01	EME2:9 POLK:61 SLX4:66 POLH:317 ABL1:566 BRIP1:606
REACTOME_HDR_THROUGH_HOMOLOGOUS_RECOMBIN	0.12265088	62	8.420e-04	1.821e-01	EME2:9 POLK:61 SLX4:66 POLH:317 BRIP1:606 BRCA1:653
ROYLANCE_BREAST_CANCER_16Q_COPY_NUMBER_D	-0.20421693	22	9.143e-04	1.914e-01	NETO2:59 VPS35:270 GPT2:427 ITFG1:490 SHCBP1:591 ORC6:638
MIKKELSEN_MEF_HCP_WITH_H3K27ME3	-0.04152419	546	9.639e-04	1.954e-01	UGT8:8 CALCR:78 KCNV1:95 RYR2:121 HRH2:124 SLC12A5:125
REACTOME_DISEASES_OF_DNA_REPAIR	0.13486480	49	1.095e-03	2.152e-01	MSH3:505 BRIP1:606 BRCA1:653 RFC2:797 PMS2:825 BRCA2:828
NIKOLSKY_BREAST_CANCER_1Q21_AMPLICON	0.16626657	32	1.135e-03	2.166e-01	RUSC1:161 PBXIP1:249 FLAD1:485 ADAM15:839 ZBTB7B:899 MRPL9:1117
HOUNKPE_HOUSEKEEPING_GENES	-0.03029310	996	1.362e-03	2.524e-01	NUP133:56 AHSA1:80 IPO9:120 USP4:141 DHX29:241 RNF216:295
NIKOLSKY_BREAST_CANCER_15Q26_AMPLICON	-0.21037727	19	1.501e-03	2.639e-01	PCSK6:203 CHSY1:208 LRRK1:221 ARRDC4:500 ALDH1A3:511 TARS3:520
KEGG_TYPE_I_DIABETES_MELLITUS	-0.17330222	28	1.505e-03	2.639e-01	HLA-DOB:157 TNF:209 GAD1:280 LTA:435 CD86:653 CD80:780
ROYLANCE_BREAST_CANCER_16Q_COPY_NUMBER_U	-0.12645222	52	1.614e-03	2.685e-01	IRX3:204 VPS35:270 CHD9:284 GPT2:427 RBL2:499 SHCBP1:591
REACTOME_TRANSPORT_OF_INORGANIC_CATIONS_	-0.09064809	102	1.574e-03	2.685e-01	SLC26A7:9 SLC12A5:125 SLC20A1:162 SLC34A2:249 SLC9A4:361 SLC38A4:383
WP_SUDDEN_INFANT_DEATH_SYNDROME_SIDS_SUS	-0.07667012	141	1.694e-03	2.748e-01	BHLHE40:40 VIPR2:102 RYR2:121 NOS1AP:128 LMX1B:207 TNF:209