

Table S3

NAME	GS NES	follow link to MSigDB NOM p-val	GS DETAILS FDR q-val	SIZE FWER p-val
RANK AT MAX	LEADING EDGE			
REACTOME_DNA_REPLICATION	REACTOME_DNA_REPLICATION	Details ...		
161	0.78869563	2.5848584	0	0
2765	"tags=83%, list=17%, signal=99%"			
REACTOME_MITOTIC_M_M_G1_PHASES	REACTOME_MITOTIC_M_M_G1_PHASES	Details ...		
0	2765	143	0.78841156	2.5204270
0	"tags=82%, list=17%, signal=98%"			
REACTOME_CELL_CYCLE_MITOTIC	REACTOME_CELL_CYCLE_MITOTIC	Details ...		
0	0	260	0.7375567	2.4846542
0	"tags=70%, list=17%, signal=83%"			
REACTOME_G1_S_TRANSITION	REACTOME_G1_S_TRANSITION	Details ...		
92	0.7910559	2.4551210	0	0
2738	"tags=85%, list=17%, signal=102%"			
REACTOME_CELL_CYCLE	REACTOME_CELL_CYCLE	Details ...		
316	0.7305762	2.4511210	0	0
2706	"tags=66%, list=17%, signal=78%"			
REACTOME_S_PHASE	REACTOME_S_PHASE	Details ...	91	
0.7886546	2.4393938	0	0	0
2690	"tags=85%, list=17%, signal=101%"			
REACTOME_CELL_CYCLE_CHECKPOINTS	REACTOME_CELL_CYCLE_CHECKPOINTS	Details ...		
0	0	96	0.77978736	2.4209056
0	"tags=79%, list=17%, signal=94%"			
REACTOME_SYNTHESIS_OF_DNA	REACTOME_SYNTHESIS_OF_DNA	Details ...		
78	0.80050945	2.4191465	0	0
2690	"tags=88%, list=17%, signal=106%"			
REACTOME_M_G1_TRANSITION	REACTOME_M_G1_TRANSITION	Details ...		
67	0.81085366	2.4167511	0	0
2668	"tags=90%, list=17%, signal=107%"			
REACTOME_MITOTIC_G1_G1_S_PHASES	REACTOME_MITOTIC_G1_G1_S_PHASES	Details ...		
0	0	112	0.7584441	2.4039187
0	"tags=77%, list=17%, signal=92%"			
REACTOME_MITOTIC_PROMETAPHASE	REACTOME_MITOTIC_PROMETAPHASE	Details ...		
0	1954	73	0.78409654	2.3797410
0	"tags=67%, list=12%, signal=76%"			
REACTOME_REGULATION_OF_MITOTIC_CELL_CYCLE	REACTOME_REGULATION_OF_MITOTIC_CELL_CYCLE	Details ...	71	
0.7838498	2.3530934	0	0	0
2668	"tags=76%, list=17%, signal=91%"			
REACTOME_HOST_INTERACTIONS_OF_HIV_FACTORS	REACTOME_HOST_INTERACTIONS_OF_HIV_FACTORS	Details ...	107	
0.73496544	2.3394303	0	0	0
3093	"tags=71%, list=19%, signal=87%"			
REACTOME_ASSEMBLY_OF_THE_PRE_REPLICATIVE_COMPLEX	REACTOME_ASSEMBLY_OF_THE_PRE_REPLICATIVE_COMPLEX	Details ...		
54	0.802842	2.3383176	0	0
2668	"tags=87%, list=17%, signal=104%"			
REACTOME_MEIOTIC_RECOMBINATION	REACTOME_MEIOTIC_RECOMBINATION	Details ...		
0	0	50	0.8093249	2.3278651
0	"tags=58%, list=6%, signal=62%"			
REACTOME_CHROMOSOME_MAINTENANCE	REACTOME_CHROMOSOME_MAINTENANCE	Details ...		
0	0	83	0.7562414	2.3254275
0	"tags=58%, list=6%, signal=62%"			

0	0	2249	"tags=66%, list=14%, signal=77%"		
REACTOME_APC_C_CDC20_MEDIATED_DEGRADATION_OF_MITOTIC_PROTEINS					
REACTOME_APC_C_CDC20_MEDIATED_DEGRADATION_OF_MITOTIC_PROTEINS					
Details ...	61	0.7811348	2.3230066	0	
0	0	2668	"tags=79%, list=17%, signal=94%"		
REACTOME_TELOMERE_MAINTENANCE REACTOME_TELOMERE_MAINTENANCE					
Details ...	51	0.80506754	2.3171136	0	
0	0	2249	"tags=80%, list=14%, signal=93%"		
REACTOME_DEPOSITION_OF_NEW_CENPA_CONTAINING_NUCLEOSOMES_AT_THE_CENTR					
OMERE					
REACTOME_DEPOSITION_OF_NEW_CENPA_CONTAINING_NUCLEOSOMES_AT_THE_CENTR					
OMERE					
Details ...	34	0.8541647	2.3165529		
0	0	0	998	"tags=71%, list=6%, signal=75%"	
REACTOME_RESPIRATORY_ELECTRON_TRANSPORT_ATP_SYNTHESIS_BY_CHEMIOSMOTI					
C_COUPLING_AND_HEAT_PRODUCTION_BY_UNCOUPLING_PROTEINS_					
REACTOME_RESPIRATORY_ELECTRON_TRANSPORT_ATP_SYNTHESIS_BY_CHEMIOSMOTI					
C_COUPLING_AND_HEAT_PRODUCTION_BY_UNCOUPLING_PROTEINS_					
Details ...	68	0.77703553	2.3080008	0	
0	0	2924	"tags=85%, list=18%, signal=104%"		
REACTOME_RNA_POL_I_PROMOTER_OPENING					
REACTOME_RNA_POL_I_PROMOTER_OPENING					
0.8706158	2.2984710	0	0	30	
1003	"tags=73%, list=6%, signal=78%"				
REACTOME_TCA_CYCLE_AND_RESPIRATORY_ELECTRON_TRANSPORT					
REACTOME_TCA_CYCLE_AND_RESPIRATORY_ELECTRON_TRANSPORT					
98	0.7268342	2.2933068	0	0	0
2973	"tags=78%, list=18%, signal=95%"				
REACTOME_ER_PHAGOSOME_PATHWAY REACTOME_ER_PHAGOSOME_PATHWAY					
0	50	0.7840883	2.2895174	0	0
0	2668	"tags=82%, list=17%, signal=98%"			
REACTOME_ORC1_REMOVAL_FROM_CHROMATIN					
REACTOME_ORC1_REMOVAL_FROM_CHROMATIN					
0.7865059	2.2866470	0	0	56	
2668	"tags=84%, list=17%, signal=100%"				
REACTOME_APC_C_CDH1_MEDIATED_DEGRADATION_OF_CDC20_AND_OTHER_APC_C_CD					
H1_TARGETED_PROTEINS_IN_LATE_MITOSIS_EARLY_G1					
REACTOME_APC_C_CDH1_MEDIATED_DEGRADATION_OF_CDC20_AND_OTHER_APC_C_CD					
H1_TARGETED_PROTEINS_IN_LATE_MITOSIS_EARLY_G1					
0.7776883	2.2833645	0	0	60	
2668	"tags=78%, list=17%, signal=94%"				
REACTOME_CDK_MEDIATED_PHOSPHORYLATION_AND_REMOVAL_OF_CDC6					
REACTOME_CDK_MEDIATED_PHOSPHORYLATION_AND_REMOVAL_OF_CDC6					
43	0.7909794	2.2752893	0	0	0
2668	"tags=86%, list=17%, signal=103%"				
REACTOME_RESPIRATORY_ELECTRON_TRANSPORT					
REACTOME_RESPIRATORY_ELECTRON_TRANSPORT					
0.7702804	2.2692463	0	0	54	
2924	"tags=85%, list=18%, signal=104%"				
REACTOME_CDT1_ASSOCIATION_WITH_THE_CDC6_ORC_ORIGIN_COMPLEX					
REACTOME_CDT1_ASSOCIATION_WITH_THE_CDC6_ORC_ORIGIN_COMPLEX					
45	0.78918034	2.2586434	0	0	0
2668	"tags=84%, list=17%, signal=101%"				
REACTOME_CYCLIN_E_ASSOCIATED_EVENTS_DURING_G1_S_TRANSITION_					
REACTOME_CYCLIN_E_ASSOCIATED_EVENTS_DURING_G1_S_TRANSITION_					

58	0.76881486	2.2541435	0	0	0
2668	"tags=79%, list=17%, signal=95%"				
	REACTOME_SCF_BETA_TRCP_MEDIATED_DEGRADATION_OF_EMI1				
	REACTOME_SCF_BETA_TRCP_MEDIATED_DEGRADATION_OF_EMI1				
45	0.7882718	2.2519166	0	0	0
2668	"tags=82%, list=17%, signal=98%"				
	REACTOME_SCFSKP2_MEDIATED_DEGRADATION_OF_P27_P21				
	REACTOME_SCFSKP2_MEDIATED_DEGRADATION_OF_P27_P21				
	0.77751833	2.2404475	0	0	50
2668	"tags=82%, list=17%, signal=98%"				
	REACTOME_G2_M_CHECKPOINTS REACTOME_G2_M_CHECKPOINTS				
	0.8458865	2.2397203	0	0	30
1538	"tags=80%, list=10%, signal=88%"				
	REACTOME_AUTODEGRADATION_OF_CDH1_BY_CDH1_APC_C				
	REACTOME_AUTODEGRADATION_OF_CDH1_BY_CDH1_APC_C				
	0.77187735	2.2342322	0	0	54
2668	"tags=78%, list=17%, signal=93%"				
	REACTOME_DNA_STRAND_ELONGATION REACTOME_DNA_STRAND_ELONGATION				
	27	0.84076446	2.2288375	0	0
0	2249	"tags=93%, list=14%, signal=107%"			
	REACTOME_AMYLOIDS REACTOME_AMYLOIDS				
	0.79445565	2.2211552	0	0	46
1003	"tags=46%, list=6%, signal=49%"				
	REACTOME_SIGNALING_BY_WNT REACTOME_SIGNALING_BY_WNT				
	0.75162977	2.2064720	0	0	56
3053	"tags=80%, list=19%, signal=99%"				
	REACTOME_P53_DEPENDENT_G1_DNA_DAMAGE_RESPONSE				
	REACTOME_P53_DEPENDENT_G1_DNA_DAMAGE_RESPONSE				
	0.75394356	2.2016776	0	0	49
2668	"tags=80%, list=17%, signal=95%"				
	REACTOME_REGULATION_OF_APOPTOSIS REACTOME_REGULATION_OF_APOPTOSIS				
	51	0.76376444	2.2012720	0	0
2668	"tags=75%, list=17%, signal=89%"				
	REACTOME_DESTABILIZATION_OF_MRNA_BY_AUF1_HNRNP_D0				
	REACTOME_DESTABILIZATION_OF_MRNA_BY_AUF1_HNRNP_D0				
	0.77340597	2.1961904	0	0	46
2668	"tags=80%, list=17%, signal=96%"				
	REACTOME_P53_INDEPENDENT_G1_S_DNA_DAMAGE_CHECKPOINT				
	REACTOME_P53_INDEPENDENT_G1_S_DNA_DAMAGE_CHECKPOINT				
45	0.77980363	2.1932652	0	0	0
2668	"tags=84%, list=17%, signal=101%"				
	REACTOME_HIV_INFECTION REACTOME_HIV_INFECTION				
	0.6647168	2.1860485	0	0	167
2668	"tags=57%, list=17%, signal=68%"				
	REACTOME_ACTIVATION_OF_ATR_IN_RESPONSE_TO_REPLICATION_STRESS				
	REACTOME_ACTIVATION_OF_ATR_IN_RESPONSE_TO_REPLICATION_STRESS				
	25	0.8510356	2.1837802	0	0
0	2087	"tags=88%, list=13%, signal=101%"			
	REACTOME_CROSS_PRESENTATION_OF_SOLUBLE_EXOGENOUS_ANTIGENS_ENDOSOMES				
	REACTOME_CROSS_PRESENTATION_OF_SOLUBLE_EXOGENOUS_ANTIGENS_ENDOSOMES				
	43	0.7877412	2.1805656	0	0
2668	"tags=81%, list=17%, signal=97%"				
	REACTOME_RNA_POL_I_TRANSCRIPTION REACTOME_RNA_POL_I_TRANSCRIPTION				
	50	0.76578796	2.1791706	0	0

0	1003	"tags=48%, list=6%, signal=51%"			
REACTOME_PACKAGING_OF_TELOMERE_ENDS					
REACTOME_PACKAGING_OF_TELOMERE_ENDS					
0.8334472	2.1748927	0	0	0	26
914	"tags=65%, list=6%, signal=69%"				
REACTOME_MEIOSIS REACTOME_MEIOSIS					
2.1692438	0	0	0	2189	0.72017777
list=14%, signal=62%"					
REACTOME_ANTIGEN_PROCESSING_CROSS_PRESENTATION					
REACTOME_ANTIGEN_PROCESSING_CROSS_PRESENTATION					
0.72450024	2.1686313	0	0	0	62
2668	"tags=69%, list=17%, signal=83%"				
REACTOME_REGULATION_OF_ORNITHINE_DECARBOXYLASE_ODC					
REACTOME_REGULATION_OF_ORNITHINE_DECARBOXYLASE_ODC					
0.7665451	2.1684968	0	0	0	45
2668	"tags=78%, list=17%, signal=93%"				
REACTOME_VIF_MEDIATED_DEGRADATION_OF_APOBEC3G					
REACTOME_VIF_MEDIATED_DEGRADATION_OF_APOBEC3G					
0.7728417	2.1652725	0	0	0	45
3270	"tags=89%, list=20%, signal=111%"				
REACTOME_REGULATION_OF_MRNA_STABILITY_BY_PROTEINS_THAT_BIND_AU_RICH_ELEMENTS					
REACTOME_REGULATION_OF_MRNA_STABILITY_BY_PROTEINS_THAT_BIND_AU_RICH_ELEMENTS					
	72	0.7167441	2.1609774	0	
0	0	3296	"tags=71%, list=20%, signal=89%"		
REACTOME_ACTIVATION_OF_NF_KAPPAB_IN_B_CELLS					
REACTOME_ACTIVATION_OF_NF_KAPPAB_IN_B_CELLS					
0.73404765	2.1494226	0	0	0	57
2668	"tags=68%, list=17%, signal=82%"				
REACTOME_AUTODEGRADATION_OF_THE_E3_UBIQUITIN_LIGASE_COP1					
REACTOME_AUTODEGRADATION_OF_THE_E3_UBIQUITIN_LIGASE_COP1					
43	0.7685827	2.1427708	0	0	0
3071	"tags=86%, list=19%, signal=106%"				
REACTOME_ACTIVATION_OF_THE_PRE_REPLICATIVE_COMPLEX					
REACTOME_ACTIVATION_OF_THE_PRE_REPLICATIVE_COMPLEX					
0.8516214	2.1190932	0	0	0	22
2349	"tags=95%, list=15%, signal=112%"				
REACTOME_EXTENSION_OF_TELOMERES REACTOME_EXTENSION_OF_TELOMERES					
	25	0.8280412	2.1181946	0	0
0	2249	"tags=88%, list=14%, signal=102%"			
REACTOME_METABOLISM_OF_RNA REACTOME_METABOLISM_OF_RNA					
	209	0.6318977	2.0889328	0	0
0	3131	"tags=54%, list=19%, signal=66%"			
REACTOME_METABOLISM_OF_MRNA REACTOME_METABOLISM_OF_MRNA					
	168	0.6350364	2.0792878	0	0
0	3545	"tags=58%, list=22%, signal=74%"			
REACTOME_E2F_MEDIATED_REGULATION_OF_DNA_REPLICATION					
REACTOME_E2F_MEDIATED_REGULATION_OF_DNA_REPLICATION					
24	0.8109448	2.0652668	0	0	0
2349	"tags=83%, list=15%, signal=97%"				
REACTOME_DOWNSTREAM_SIGNALING_EVENTS_OF_B_CELL_RECEPTOR_BCR					
REACTOME_DOWNSTREAM_SIGNALING_EVENTS_OF_B_CELL_RECEPTOR_BCR					
83	0.6694285	2.0540242	0	0	0
2668	"tags=57%, list=17%, signal=68%"				

REACTOME_TRANSCRIPTION	REACTOME_TRANSCRIPTION				142
0.6363671	2.0534878	0	0	0	
2541	"tags=47%, list=16%, signal=56%"				
REACTOME_MEIOTIC_SYNAPSIS	REACTOME_MEIOTIC_SYNAPSIS				46
0.7230101	2.0430810	0	0		
1726	"tags=52%, list=11%, signal=58%"				
REACTOME_LAGGING_STRAND_SYNTHESIS	REACTOME_LAGGING_STRAND_SYNTHESIS				
19	0.8339135	2.0228088	0	0	
0	2690	"tags=100%, list=17%, signal=120%"			
REACTOME_RNA_POL_I_RNA_POL_III_AND_MITOCHONDRIAL_TRANSCRIPTION	REACTOME_RNA_POL_I_RNA_POL_III_AND_MITOCHONDRIAL_TRANSCRIPTION				
79	0.6645122	2.0082498	0	0	
0	2153	"tags=43%, list=13%, signal=49%"			
REACTOME_PROCESSING_OF_CAPPED_INTRON_CONTAINING_PRE_MRNA	REACTOME_PROCESSING_OF_CAPPED_INTRON_CONTAINING_PRE_MRNA				
101	0.63119835	1.9826515	0	1.65E-05	0.001
3083	"tags=55%, list=19%, signal=68%"				
REACTOME_DNA_REPAIR	REACTOME_DNA_REPAIR				90
0.629968	1.9553496	0	1.62E-05	0.001	
2690	"tags=49%, list=17%, signal=58%"				
REACTOME_SIGNALING_BY_THE_B_CELL_RECEPTOR_BCR	REACTOME_SIGNALING_BY_THE_B_CELL_RECEPTOR_BCR				110
0.61634815	1.9544188	0	1.60E-05	0.001	
3347	"tags=58%, list=21%, signal=73%"				
REACTOME_APOPTOSIS	REACTOME_APOPTOSIS				127
0.6065087	1.9460149	0	3.13E-05	0.002	
3053	"tags=59%, list=19%, signal=72%"				
REACTOME_MRNA_SPLICING	REACTOME_MRNA_SPLICING				74
0.63119173	1.9337256	0	4.73E-05	0.003	
3625	"tags=64%, list=23%, signal=82%"				
REACTOME_TRANSLATION	REACTOME_TRANSLATION				111
0.6085699	1.9254034	0	6.25E-05	0.004	
4860	"tags=73%, list=30%, signal=104%"				
REACTOME_MRNA_PROCESSING	REACTOME_MRNA_PROCESSING				117
0.6059184	1.9190344	0	6.16E-05	0.004	
4097	"tags=63%, list=25%, signal=84%"				
REACTOME_MHC_CLASS_II_ANTIGEN_PRESENTATION	REACTOME_MHC_CLASS_II_ANTIGEN_PRESENTATION				65
0.6381284	1.9057755	0	1.21E-04	0.008	
2943	"tags=52%, list=18%, signal=64%"				
REACTOME_PROCESSIVE_SYNTHESIS_ON_THE_LAGGING_STRAND	REACTOME_PROCESSIVE_SYNTHESIS_ON_THE_LAGGING_STRAND				
15	0.83370626	1.9022654	0	1.50E-04	0.01
2690	"tags=100%, list=17%, signal=120%"				
REACTOME_INFLUENZA_LIFE_CYCLE	REACTOME_INFLUENZA_LIFE_CYCLE				
100	0.6054846	1.8994455	0	1.63E-04	
0.011	4452	"tags=64%, list=28%, signal=88%"			
REACTOME_INHIBITION_OF_THE_PROTEOLYTIC_ACTIVITY_OF_APC_C_REQUIRED_FOR_THE_ONSET_OF_ANAPHASE_BY_MITOTIC_SPINDLE_CHECKPOINT_COMPONENTS	REACTOME_INHIBITION_OF_THE_PROTEOLYTIC_ACTIVITY_OF_APC_C_REQUIRED_FOR_THE_ONSET_OF_ANAPHASE_BY_MITOTIC_SPINDLE_CHECKPOINT_COMPONENTS				
18	0.77951956	1.8872938	0	2.05E-04	
0.014	2529	"tags=67%, list=16%, signal=79%"			
REACTOME_MITOTIC_G2_G2_M_PHASES	REACTOME_MITOTIC_G2_G2_M_PHASES				

0.016	62	0.63001895	1.8832685	0	2.31E-04
	1802	"tags=45%, list=11%, signal=51%"			
		REACTOME_CLASS_I_MHC_MEDIATED_ANTIGEN_PROCESSING_PRESENTATION			
		REACTOME_CLASS_I_MHC_MEDIATED_ANTIGEN_PROCESSING_PRESENTATION			
0.022	209	0.5615058	1.8732063	0	3.12E-04
	2668	"tags=43%, list=17%, signal=51%"			
		REACTOME_METABOLISM_OF_NON_CODING_RNA			
		REACTOME_METABOLISM_OF_NON_CODING_RNA			
0.66467977		1.8494879	0	5.31E-04	0.038
2566		"tags=52%, list=16%, signal=62%"			
		REACTOME_KINESINS			17
0.7696647		1.8409367	0	6.20E-04	0.044
1004		"tags=47%, list=6%, signal=50%"			
		REACTOME_ANTIGEN_PROCESSING_UBIQUITINATION_PROTEASOME_DEGRADATION			
		REACTOME_ANTIGEN_PROCESSING_UBIQUITINATION_PROTEASOME_DEGRADATION			
0.046	180	0.56208265	1.8390976	0	6.39E-04
	3417	"tags=49%, list=21%, signal=62%"			
		REACTOME_SRP_DEPENDENT_COTRANSLATIONAL_PROTEIN_TARGETING_TO_MEMBRANE			
		REACTOME_SRP_DEPENDENT_COTRANSLATIONAL_PROTEIN_TARGETING_TO_MEMBRANE			
6.31E-04	80	0.6074608	1.8380127	0	
0.046	5170	"tags=76%, list=32%, signal=112%"			
		REACTOME_FORMATION_OF_THE_TERNARY_COMPLEX_AND_SUBSEQUENTLY_THE_43S_COMPLEX			
		REACTOME_FORMATION_OF_THE_TERNARY_COMPLEX_AND_SUBSEQUENTLY_THE_43S_COMPLEX			
6.23E-04	34	0.6693575	1.8376149	0	
0.046	5011	"tags=85%, list=31%, signal=124%"			
		REACTOME_INTERACTIONS_OF_VPR_WITH_HOST_CELLULAR_PROTEINS			
		REACTOME_INTERACTIONS_OF_VPR_WITH_HOST_CELLULAR_PROTEINS			
29	0.7054716	1.8346659	0	6.93E-04	0.051
2566		"tags=52%, list=16%, signal=61%"			
		REACTOME_THE_ROLE_OF_NEF_IN_HIV1_REPLICATION_AND_DISEASE_PATHOGENESIS			
		REACTOME_THE_ROLE_OF_NEF_IN_HIV1_REPLICATION_AND_DISEASE_PATHOGENESIS			
7.62E-04	22	0.72063744	1.8282096	0	
0.057	2388	"tags=59%, list=15%, signal=69%"			
		REACTOME_SIGNAL_TRANSDUCTION_BY_L1			
		REACTOME_SIGNAL_TRANSDUCTION_BY_L1			
0.6843626		1.8276379	0.001257862	7.53E-04	0.057
3168		"tags=56%, list=20%, signal=70%"			
		REACTOME_3_UTR_MEDIATED_TRANSLATIONAL_REGULATION			
		REACTOME_3_UTR_MEDIATED_TRANSLATIONAL_REGULATION			
0.5974011		1.8265032	0	7.69E-04	0.059
5170		"tags=77%, list=32%, signal=112%"			
		REACTOME_SYNTHESIS_AND_INTERCONVERSION_OF_NUCLEOTIDE_DI_AND_TRIPHOSPHATES			
		REACTOME_SYNTHESIS_AND_INTERCONVERSION_OF_NUCLEOTIDE_DI_AND_TRIPHOSPHATES			
0.06	15	0.77967	1.8250481	0	7.73E-04
	1305	"tags=53%, list=8%, signal=58%"			
		REACTOME_SMOOTH_MUSCLE_CONTRACTION			
		REACTOME_SMOOTH_MUSCLE_CONTRACTION			
0.73312557		1.8187292	0	9.10E-04	0.072
2757		"tags=57%, list=17%, signal=69%"			
		REACTOME_PHOSPHORYLATION_OF_THE_APC_COMPLEX			

REACTOME_PHOSPHORYLATION_OF_THE_APC_C				16	
0.77748173	1.8156877	0	9.60E-04	0.076	
2529	"tags=63%, list=16%, signal=74%"				
REACTOME_TRANSPORT_OF_RIBONUCLEOPROTEINS_INTO_THE_HOST_NUCLEUS					
REACTOME_TRANSPORT_OF_RIBONUCLEOPROTEINS_INTO_THE_HOST_NUCLEUS					
	25	0.71044284	1.8108827	0	9.97E-04
0.08	2566	"tags=52%, list=16%, signal=62%"			
REACTOME_DOUBLE_STRAND_BREAK_REPAIR					
REACTOME_DOUBLE_STRAND_BREAK_REPAIR				20	
0.7331169	1.8094913	0.002624672	9.98E-04	0.081	
3217	"tags=75%, list=20%, signal=94%"				
REACTOME_APC_CDC20_MEDIATED_DEGRADATION_OF_NEK2A					
REACTOME_APC_CDC20_MEDIATED_DEGRADATION_OF_NEK2A				20	
0.7370271	1.8091898	0	9.87E-04	0.081	
2529	"tags=60%, list=16%, signal=71%"				
REACTOME_HIV_LIFE_CYCLE	REACTOME_HIV_LIFE_CYCLE				98
0.5751513	1.8084722	0	9.76E-04	0.081	
2884	"tags=49%, list=18%, signal=59%"				
REACTOME_G0_AND_EARLY_G1	REACTOME_G0_AND_EARLY_G1				20
0.7407984	1.8070996	0	9.66E-04	0.081	
1960	"tags=60%, list=12%, signal=68%"				
REACTOME_ADAPTIVE_IMMUNE_SYSTEM	REACTOME_ADAPTIVE_IMMUNE_SYSTEM				
	428	0.5322155	1.80087	0	0.0010237
0.087	3349	"tags=46%, list=21%, signal=56%"			
REACTOME_INFLUENZA_VIRAL_RNA_TRANSCRIPTION_AND_REPLICATION					
REACTOME_INFLUENZA_VIRAL_RNA_TRANSCRIPTION_AND_REPLICATION					
70	0.59453005	1.797866	0	0.001068719	0.092
5170	"tags=74%, list=32%, signal=109%"				
REACTOME_TRANSPORT_OF_MATURE_MRNA_DERIVED_FROM_AN_INTRONLESS_TRANSCRIPT					
REACTOME_TRANSPORT_OF_MATURE_MRNA_DERIVED_FROM_AN_INTRONLESS_TRANSCRIPT					
	30	0.6769309	1.7917185		
0.001243781	0.001190095	0.102	2566	"tags=50%, list=16%, signal=59%"	
REACTOME_NUCLEOTIDE_EXCISION_REPAIR					
REACTOME_NUCLEOTIDE_EXCISION_REPAIR				43	
0.6357211	1.7853262	0	0.001320466	0.115	
2087	"tags=49%, list=13%, signal=56%"				
REACTOME_ACTIVATION_OF_THE_MRNA_UPON_BINDING_OF_THE_CAP_BINDING_COMPLEX_AND_EIFS_AND_SUBSEQUENT_BINDING_TO_43S					
REACTOME_ACTIVATION_OF_THE_MRNA_UPON_BINDING_OF_THE_CAP_BINDING_COMPLEX_AND_EIFS_AND_SUBSEQUENT_BINDING_TO_43S				42	
0.6423143	1.7824532	0	0.001394577	0.122	
4050	"tags=71%, list=25%, signal=95%"				
REACTOME_L1CAM_INTERACTIONS	REACTOME_L1CAM_INTERACTIONS				
	66	0.59871936	1.7823344	0	
0.001390955	0.122	3210	"tags=41%, list=20%, signal=51%"		
REACTOME_RECYCLING_PATHWAY_OF_L1	REACTOME_RECYCLING_PATHWAY_OF_L1				
	20	0.7276558	1.7787886	0	
0.001516169	0.135	3046	"tags=65%, list=19%, signal=80%"		
REACTOME_APC_C_CDC20_MEDIATED_DEGRADATION_OF_CYCLIN_B					
REACTOME_APC_C_CDC20_MEDIATED_DEGRADATION_OF_CYCLIN_B					
17	0.746631	1.7735586	0	0.001722047	0.152
2529	"tags=59%, list=16%, signal=70%"				

REACTOME_GLOBAL_GENOMIC_NER_GG_NER					
REACTOME_GLOBAL_GENOMIC_NER_GG_NER				31	
0.6602998	1.7729254	0	0.001715832	0.152	
2087	"tags=52%, list=13%, signal=59%"				
REACTOME_CYTOSOLIC_TRNA_AMINOACYLATION					
REACTOME_CYTOSOLIC_TRNA_AMINOACYLATION				22	
0.6983128	1.7600849	0.002621232	0.002215929		
0.194	2930	"tags=64%, list=18%, signal=78%"			
REACTOME_TRANSPORT_OF_MATURE_TRANSCRIPT_TO_CYTOPLASM					
REACTOME_TRANSPORT_OF_MATURE_TRANSCRIPT_TO_CYTOPLASM					
39	0.64466804	1.7580438	0.001212121		
0.002245039	0.199	2566	"tags=49%, list=16%, signal=58%"		
REACTOME_NEP_NS2_INTERACTS_WITH_THE_CELLULAR_EXPORT_MACHINERY					
REACTOME_NEP_NS2_INTERACTS_WITH_THE_CELLULAR_EXPORT_MACHINERY					
25	0.67900044	1.7579929	0.003816794		
0.002223453	0.199	2647	"tags=52%, list=16%, signal=62%"		
REACTOME_LATE_PHASE_OF_HIV_LIFE_CYCLE					
REACTOME_LATE_PHASE_OF_HIV_LIFE_CYCLE				85	
0.5708293	1.7497482	0	0.002552712	0.224	
4097	"tags=61%, list=25%, signal=82%"				
REACTOME_RNA_POL_II_TRANSCRIPTION	REACTOME_RNA_POL_II_TRANSCRIPTION				
75	0.5697471	1.7480543	0		
0.002608493	0.229	4834	"tags=68%, list=30%, signal=97%"		
REACTOME_REGULATION_OF_GLucokinase_BY_GLucokinase_REGULATORY_PROTEIN					
REACTOME_REGULATION_OF_GLucokinase_BY_GLucokinase_REGULATORY_PROTEIN					
	25	0.6814263	1.7390118		
0.001290323	0.002958851	0.254	2566	"tags=48%, list=16%, signal=57%"	
REACTOME_SEMAPHORIN_INTERACTIONS	REACTOME_SEMAPHORIN_INTERACTIONS				
54	0.6040439	1.7382782	0		
0.002950968	0.256	3168	"tags=48%, list=20%, signal=60%"		
REACTOME_DEADENYLATION_DEPENDENT_MRNA_DECAY					
REACTOME_DEADENYLATION_DEPENDENT_MRNA_DECAY				39	
0.6275189	1.7357222	0	0.003048554	0.265	
3951	"tags=56%, list=25%, signal=75%"				
REACTOME_ELONGATION_ARREST_AND_RECOVERY					
REACTOME_ELONGATION_ARREST_AND_RECOVERY				24	
0.67978466	1.7307440	0.003337209	0.29		
3093	"tags=67%, list=19%, signal=82%"				
REACTOME_TRANSCRIPTION_COUPLED_NER_TC_NER					
REACTOME_TRANSCRIPTION_COUPLED_NER_TC_NER				38	
0.6377384	1.7296275	0	0.003344868	0.294	
2087	"tags=50%, list=13%, signal=57%"				
REACTOME_PEPTIDE_CHAIN_ELONGATION	REACTOME_PEPTIDE_CHAIN_ELONGATION				
58	0.59065306	1.7290201	0		
0.003315003	0.294	5170	"tags=72%, list=32%, signal=106%"		
REACTOME_NONSENSE_MEDIATED_DECAY_ENHANCED_BY_THE_EXON_JUNCTION_COMPLEX					
REACTOME_NONSENSE_MEDIATED_DECAY_ENHANCED_BY_THE_EXON_JUNCTION_COMPLEX					
74	0.5738943	1.7268243	0		
0.003425381	0.304	5170	"tags=70%, list=32%, signal=103%"		
REACTOME_FACTORS_INVOLVED_IN_MEGAKARYOCYTE_DEVELOPMENT_AND_PLATELET_PRODUCTION					



REACTOME\_FACTORS\_INVOLVED\_IN\_MEGAKARYOCYTE\_DEVELOPMENT\_AND\_PLATELET\_PRODUC-  
 TION 92 0.5572926 1.7246474  
 0 0.003515385 0.313 1935 "tags=30%, list=12%,  
 signal=34%"  
 REACTOME\_PYRUVATE\_METABOLISM\_AND\_CITRIC\_ACID\_TCA\_CYCLE  
 REACTOME\_PYRUVATE\_METABOLISM\_AND\_CITRIC\_ACID\_TCA\_CYCLE  
 33 0.64319754 1.7216444 0.002484472  
 0.00365842 0.328 3143 "tags=67%, list=20%, signal=83%"  
 REACTOME\_SIGNALLING\_BY\_NGF REACTOME\_SIGNALLING\_BY\_NGF  
 177 0.5259908 1.7189999 0  
 0.003772554 0.339 3286 "tags=41%, list=20%, signal=51%"  
 REACTOME\_GLUCOSE\_TRANSPORT REACTOME\_GLUCOSE\_TRANSPORT  
 35 0.63752085 1.7161608 0  
 0.004000464 0.363 2566 "tags=40%, list=16%, signal=47%"  
 REACTOME\_CITRIC\_ACID\_CYCLE\_TCA\_CYCLE  
 REACTOME\_CITRIC\_ACID\_CYCLE\_TCA\_CYCLE 17  
 0.7196686 1.7127221 0 0.004280001 0.387  
 3820 "tags=94%, list=24%, signal=123%"  
 REACTOME\_NEF\_MEDIATES\_DOWN\_MODULATION\_OF\_CELL\_SURFACE\_RECEPTORS\_BY\_R  
 ECRUITING\_THEM\_TO\_CLATHRIN\_ADAPTERS  
 REACTOME\_NEF\_MEDIATES\_DOWN\_MODULATION\_OF\_CELL\_SURFACE\_RECEPTORS\_BY\_R  
 ECRUITING\_THEM\_TO\_CLATHRIN\_ADAPTERS 17 0.726079  
 1.7105254 0 0.004367189 0.396  
 2915 "tags=65%, list=18%, signal=79%"  
 REACTOME\_NGF\_SIGNALLING\_VIA\_TRKA\_FROM\_THE\_PLASMA\_MEMBRANE  
 REACTOME\_NGF\_SIGNALLING\_VIA\_TRKA\_FROM\_THE\_PLASMA\_MEMBRANE  
 114 0.5340791 1.7057137 0 0.004741552  
 0.426 3051 "tags=40%, list=19%, signal=49%"  
 REACTOME\_RNA\_POL\_II\_PRE\_TRANSCRIPTION\_EVENTS  
 REACTOME\_RNA\_POL\_II\_PRE\_TRANSCRIPTION\_EVENTS 46  
 0.59376645 1.7052727 0.00120773 0.004755336  
 0.43 4754 "tags=72%, list=30%, signal=101%"  
 REACTOME\_CONVERSION\_FROM\_APC\_C\_CDC20\_TO\_APC\_C\_CDH1\_IN\_LATE\_ANAPHASE  
 REACTOME\_CONVERSION\_FROM\_APC\_C\_CDC20\_TO\_APC\_C\_CDH1\_IN\_LATE\_ANAPHASE  
 16 0.72515655 1.7014331 0.004149378  
 0.005148049 0.461 2529 "tags=56%, list=16%, signal=67%"  
 REACTOME\_FORMATION\_OF\_RNA\_POL\_II\_ELONGATION\_COMPLEX\_  
 REACTOME\_FORMATION\_OF\_RNA\_POL\_II\_ELONGATION\_COMPLEX\_  
 33 0.63125914 1.6975124 0 0.005481726  
 0.482 4651 "tags=76%, list=29%, signal=106%"  
 REACTOME\_SEMA4D\_IN\_SEMAPHORIN\_SIGNALING  
 REACTOME\_SEMA4D\_IN\_SEMAPHORIN\_SIGNALING 21  
 0.6668347 1.6743152 0.003963012 0.007788757  
 0.622 2060 "tags=57%, list=13%, signal=65%"  
 REACTOME\_TRAFFICKING\_OF\_AMPA\_RECEPTORS  
 REACTOME\_TRAFFICKING\_OF\_AMPA\_RECEPTORS 23  
 0.66755944 1.671353 0.002670227 0.008139056 0.635  
 2388 "tags=39%, list=15%, signal=46%"  
 REACTOME\_METABOLISM\_OF\_NUCLEOTIDES  
 REACTOME\_METABOLISM\_OF\_NUCLEOTIDES 62  
 0.56756264 1.670183 0 0.008191384 0.642  
 1341 "tags=31%, list=8%, signal=33%"  
 REACTOME\_SEMA4D\_INDUCED\_CELL\_MIGRATION\_AND\_GROWTH\_CONE\_COLLAPSE  
 REACTOME\_SEMA4D\_INDUCED\_CELL\_MIGRATION\_AND\_GROWTH\_CONE\_COLLAPSE

18	0.6948419	1.6645529	0.00538358
0.008839243	0.68	2060	"tags=61%, list=13%, signal=70%"
REACTOME_METABOLISM_OF_PROTEINS		REACTOME_METABOLISM_OF_PROTEINS	
335	0.4903597	1.6538304	0
0.010253902	0.734	4064	"tags=48%, list=25%, signal=63%"
REACTOME_MRNA_SPLICING_MINOR_PATHWAY			
REACTOME_MRNA_SPLICING_MINOR_PATHWAY			28
0.62721676	1.6496663	0.003841229	0.010663147
0.756	4834		"tags=82%, list=30%, signal=117%"
REACTOME_SIGNALING_BY_EGFR_IN_CANCER			
REACTOME_SIGNALING_BY_EGFR_IN_CANCER			93
0.5283671	1.6400547	0	0.012001592
2829			0.795
			"tags=45%, list=18%, signal=54%"
REACTOME_RECRUITMENT_OF_MITOTIC_CENTROSOME_PROTEINS_AND_COMPLEXES			
REACTOME_RECRUITMENT_OF_MITOTIC_CENTROSOME_PROTEINS_AND_COMPLEXES			
48	0.5665597	1.6382773	0
0.012255388	0.805	2395	"tags=46%, list=15%, signal=54%"
REACTOME_GLUONEOGENESIS		REACTOME_GLUONEOGENESIS	27
0.62301564	1.6316622	0.007731959	0.013247914
0.83	1979		"tags=44%, list=12%, signal=51%"
REACTOME_G1_PHASE		REACTOME_G1_PHASE	29
0.61381996	1.6301979	0.005134788	0.013423311
0.832	2269		"tags=55%, list=14%, signal=64%"
REACTOME_RESPONSE_TO_ELEVATED_PLATELET_CYTOSOLIC_CA2			
REACTOME_RESPONSE_TO_ELEVATED_PLATELET_CYTOSOLIC_CA2			
68	0.5463355	1.6299331	0.001140251
0.013338902	0.832	2772	"tags=35%, list=17%, signal=42%"
REACTOME_COSTIMULATION_BY_THE_CD28_FAMILY			
REACTOME_COSTIMULATION_BY_THE_CD28_FAMILY			47
1.629841	0.003631961	0.013263412	0.833
2738			"tags=49%, list=17%, signal=59%"
REACTOME_ANTIVIRAL_MECHANISM_BY_IFN_STIMULATED_GENES			
REACTOME_ANTIVIRAL_MECHANISM_BY_IFN_STIMULATED_GENES			
56	0.559681	1.629356	0.002301496
2661			0.013258281
			0.833
			"tags=48%, list=17%, signal=58%"
REACTOME_GLUCOSE_METABOLISM		REACTOME_GLUCOSE_METABOLISM	
57	0.55505055	1.6275308	0.00238379
0.013414376	0.835	2948	"tags=47%, list=18%, signal=58%"
REACTOME_ACTIVATION_OF_CHAPERONE_GENES_BY_XBP1S			
REACTOME_ACTIVATION_OF_CHAPERONE_GENES_BY_XBP1S			37
0.59127975	1.6179823	0.002528445	0.015110023
0.864	4175		"tags=62%, list=26%, signal=84%"
REACTOME_FORMATION_OF_THE_HIV1_EARLY_ELONGATION_COMPLEX			
REACTOME_FORMATION_OF_THE_HIV1_EARLY_ELONGATION_COMPLEX			
25	0.6322273	1.6164488	0.010309278
0.015214064	0.87	4651	"tags=76%, list=29%, signal=107%"
REACTOME_INTERFERON_SIGNALING		REACTOME_INTERFERON_SIGNALING	
117	0.5084619	1.6137779	0
0.01568209	0.886	3379	"tags=47%, list=21%, signal=59%"
REACTOME_MITOCHONDRIAL_PROTEIN_IMPORT			
REACTOME_MITOCHONDRIAL_PROTEIN_IMPORT			43
1.6049218	0.001182033	0.01740689	0.572403
3298			0.914
			"tags=56%, list=20%, signal=70%"
REACTOME_AXON_GUIDANCE		REACTOME_AXON_GUIDANCE	197

0.48736268      1.6045227      0      0.017365336      0.919  
3210      "tags=32%, list=20%, signal=40%"  
REACTOME\_ABORTIVE\_ELONGATION\_OF\_HIV1\_TRANSCRIPT\_IN\_THE\_ABSENCE\_OF\_TA  
T  
REACTOME\_ABORTIVE\_ELONGATION\_OF\_HIV1\_TRANSCRIPT\_IN\_THE\_ABSENCE\_OF\_TA  
T      17      0.6862599      1.60001      0.009320905  
0.018202595      0.929      4366      "tags=82%, list=27%, signal=113%"  
REACTOME\_ASPARAGINE\_N\_LINKED\_GLYCOSYLATION  
REACTOME\_ASPARAGINE\_N\_LINKED\_GLYCOSYLATION      70  
0.5320143      1.5989769      0.002290951      0.018324966  
0.93      4187      "tags=56%, list=26%, signal=75%"  
REACTOME\_UNFOLDED\_PROTEIN\_RESPONSE  
REACTOME\_UNFOLDED\_PROTEIN\_RESPONSE      63  
0.5472108      1.5965610      0.018824704      0.936  
3533      "tags=49%, list=22%, signal=63%"  
REACTOME\_PYRIMIDINE\_METABOLISM      REACTOME\_PYRIMIDINE\_METABOLISM  
21      0.63343203      1.5837096      0.013245033  
0.021954898      0.962      948      "tags=29%, list=6%, signal=30%"  
REACTOME\_DARPP\_32\_EVENTS      REACTOME\_DARPP\_32\_EVENTS      23  
0.621281      1.5816603      0.009174312      0.022206824      0.962  
3286      "tags=70%, list=20%, signal=87%"  
REACTOME\_HEMOSTASIS      REACTOME\_HEMOSTASIS      383  
0.46375072      1.5812035      0      0.022205468      0.963  
3806      "tags=38%, list=24%, signal=48%"  
REACTOME\_TGF\_BETA\_RECEPTOR\_SIGNALING\_ACTIVATES\_SMADS  
REACTOME\_TGF\_BETA\_RECEPTOR\_SIGNALING\_ACTIVATES\_SMADS  
19      0.6596114      1.5732145      0.006648936  
0.024259897      0.974      3725      "tags=63%, list=23%, signal=82%"  
REACTOME\_CELL\_DEATH\_SIGNALLING\_VIA\_NRAGE\_NRIF\_AND\_NADE  
REACTOME\_CELL\_DEATH\_SIGNALLING\_VIA\_NRAGE\_NRIF\_AND\_NADE  
46      0.5498246      1.5692052      0.004716981  
0.025370775      0.977      2764      "tags=37%, list=17%, signal=44%"  
REACTOME\_MRNA\_CAPPING      REACTOME\_MRNA\_CAPPING      22  
0.6229884      1.5673361      0.01615074      0.025755115  
0.977      4651      "tags=73%, list=29%, signal=102%"  
REACTOME\_ERK\_MAPK\_TARGETS      REACTOME\_ERK\_MAPK\_TARGETS      18  
0.6541157      1.56320702      0.026880778      0.983  
3051      "tags=61%, list=19%, signal=75%"  
REACTOME\_MUSCLE\_CONTRACTION      REACTOME\_MUSCLE\_CONTRACTION  
40      0.56232274      1.5617294      0.007185629  
0.027248725      0.983      3435      "tags=43%, list=21%, signal=54%"  
REACTOME\_P75\_NTR\_RECEPTOR\_MEDIATED\_SIGNALLING  
REACTOME\_P75\_NTR\_RECEPTOR\_MEDIATED\_SIGNALLING      65  
0.5221838      1.5613767      0      0.02718797      0.984  
3270      "tags=40%, list=20%, signal=50%"  
REACTOME\_LOSS\_OF\_NLP\_FROM\_MITOTIC\_CENTROSOMES  
REACTOME\_LOSS\_OF\_NLP\_FROM\_MITOTIC\_CENTROSOMES      43  
0.5452198      1.5569755      0.012135922      0.028316831  
0.986      2069      "tags=44%, list=13%, signal=51%"  
REACTOME\_NUCLEAR\_EVENTS\_KINASE\_AND\_TRANSCRIPTION\_FACTOR\_ACTIVATION  
REACTOME\_NUCLEAR\_EVENTS\_KINASE\_AND\_TRANSCRIPTION\_FACTOR\_ACTIVATION  
21      0.6214711      1.5562999      0.022280471  
0.028317956      0.986      3051      "tags=57%, list=19%, signal=70%"  
REACTOME\_PRE\_NOTCH\_PROCESSING\_IN\_GOLGI

REACTOME_PRE_NOTCH_PROCESSING_IN_GOLGI				15
0.67220306	1.5553675	0.023709903		0.028438674
0.986	2121	"tags=53%, list=13%, signal=61%"		
REACTOME_BIOSYNTHESIS_OF_THE_N_GLYCAN_PRECURSOR_DOLICHOL_LIPID_LINKED_OLIGOSACCHARIDE_LLO_AND_TRANSFER_TO_A_NASCENT_PROTEIN				
REACTOME_BIOSYNTHESIS_OF_THE_N_GLYCAN_PRECURSOR_DOLICHOL_LIPID_LINKED_OLIGOSACCHARIDE_LLO_AND_TRANSFER_TO_A_NASCENT_PROTEIN				
26	0.59594065	1.5455664		0.014138818
0.03163929	0.989	2832	"tags=42%, list=18%, signal=51%"	
REACTOME_GLYCOLYSIS		REACTOME_GLYCOLYSIS		26
0.60091716	1.5445992	0.015645372		0.03180582
0.99	1979	"tags=50%, list=12%, signal=57%"		
REACTOME_INTEGRIN_ALPHA_IIB_BETA3_SIGNALING				
REACTOME_INTEGRIN_ALPHA_IIB_BETA3_SIGNALING				26
0.58810294	1.5427231	0.013192612		0.03231226
0.99	1958	"tags=35%, list=12%, signal=39%"		
REACTOME_DEADENYLATION_OF_MRNA		REACTOME_DEADENYLATION_OF_MRNA		
	17	0.6533003	1.5318488	0.024423338
0.035981923	0.995	3951	"tags=71%, list=25%, signal=93%"	
REACTOME_GENERATION_OF_SECOND_MESSENGER_MOLECULES				
REACTOME_GENERATION_OF_SECOND_MESSENGER_MOLECULES				19
0.6289413	1.531593	0.02631579	0.03585712	0.995
3347	"tags=53%, list=21%, signal=66%"			
REACTOME_RESOLUTION_OF_AP_SITES_VIA_THE_MULTIPLE_NUCLEOTIDE_PATCH_REPLACEMENT_PATHWAY				
REACTOME_RESOLUTION_OF_AP_SITES_VIA_THE_MULTIPLE_NUCLEOTIDE_PATCH_REPLACEMENT_PATHWAY				17
			0.64834094	
1.5262007	0.026760563	0.037770435		0.996
2690	"tags=53%, list=17%, signal=63%"			
REACTOME_PLATELET_ACTIVATION_SIGNALING_AND_AGGREGATION				
REACTOME_PLATELET_ACTIVATION_SIGNALING_AND_AGGREGATION				
178	0.46318376	1.5216906	0	0.03939347
0.997	2052	"tags=29%, list=13%, signal=32%"		
REACTOME_LYSOSOME_VESICLE_BIOGENESIS				
REACTOME_LYSOSOME_VESICLE_BIOGENESIS				18
0.6262256	1.5216589	0.027061855		0.03916722
0.997	2915	"tags=56%, list=18%, signal=68%"		
REACTOME_BASE_EXCISION_REPAIR		REACTOME_BASE_EXCISION_REPAIR		
	19	0.6275396	1.5186992	0.034574468
0.040160246	0.998	2690	"tags=47%, list=17%, signal=57%"	
REACTOME_OTHER_SEMAPHORIN_INTERACTIONS				
REACTOME_OTHER_SEMAPHORIN_INTERACTIONS				15
0.65096515	1.5168	0.035063114	0.040771037	0.998
3168	"tags=47%, list=20%, signal=58%"			
REACTOME_APOPTOTIC_EXECUTION_PHASE				
REACTOME_APOPTOTIC_EXECUTION_PHASE				45
0.5342928	1.5164152	0.014234875		0.04065423
0.998	3681	"tags=56%, list=23%, signal=72%"		
REACTOME_INSULIN_RECEPTOR_RECYCLING				
REACTOME_INSULIN_RECEPTOR_RECYCLING				19
0.6197653	1.5160776	0.038356163		0.04058078
0.998	4179	"tags=58%, list=26%, signal=78%"		
REACTOME_DIABETES_PATHWAYS		REACTOME_DIABETES_PATHWAYS		
	103	0.48451638	1.51457	0.003282276

0.04104693 0.998 3533 "tags=40%, list=22%, signal=51%"  
REACTOME\_CTLA4\_INHIBITORY\_SIGNALING  
REACTOME\_CTLA4\_INHIBITORY\_SIGNALING 18  
0.6183529 1.5137483 0.026279392 0.041229915  
0.998 1988 "tags=61%, list=12%, signal=70%"  
REACTOME\_SIGNALING\_BY\_ERBB4 REACTOME\_SIGNALING\_BY\_ERBB4  
72 0.4966521 1.5028979 0.01849711  
0.045822594 0.998 2986 "tags=33%, list=19%, signal=41%"  
REACTOME\_CHOLESTEROL\_BIOSYNTHESIS REACTOME\_CHOLESTEROL\_BIOSYNTHESIS  
15 0.6607252 1.5009083 0.030054646  
0.046495333 0.998 2491 "tags=47%, list=15%, signal=55%"  
REACTOME\_EGFR\_DOWNREGULATION REACTOME\_EGFR\_DOWNREGULATION  
21 0.6057746 1.5001383 0.047557842  
0.046629004 0.998 2559 "tags=62%, list=16%, signal=74%"  
REACTOME\_RNA\_POL\_II\_TRANSCRIPTION\_PRE\_INITIATION\_AND\_PROMOTER\_OPENIN  
G  
REACTOME\_RNA\_POL\_II\_TRANSCRIPTION\_PRE\_INITIATION\_AND\_PROMOTER\_OPENIN  
G 31 0.5594787 1.4969417  
0.038961038 0.04776846 0.998 4754 "tags=68%,  
list=30%, signal=96%"  
REACTOME\_SHC1\_EVENTS\_IN\_ERBB4\_SIGNALING  
REACTOME\_SHC1\_EVENTS\_IN\_ERBB4\_SIGNALING 16  
0.6376965 1.4928368 0.044058744 0.04953755  
1 5284 "tags=81%, list=33%, signal=121%"  
REACTOME\_LATENT\_INFECTION\_OF\_HOMO\_SAPIENS\_WITH\_MYCOBACTERIUM\_TUBERCU  
LOSIS  
REACTOME\_LATENT\_INFECTION\_OF\_HOMO\_SAPIENS\_WITH\_MYCOBACTERIUM\_TUBERCU  
LOSIS 28 0.56258905 1.4894764  
0.03937008 0.051070616 1 2115 "tags=32%,  
list=13%, signal=37%"  
REACTOME\_CLEAVAGE\_OF\_GROWING\_TRANSCRIPT\_IN\_THE\_TERMINATION\_REGION\_  
REACTOME\_CLEAVAGE\_OF\_GROWING\_TRANSCRIPT\_IN\_THE\_TERMINATION\_REGION\_  
28 0.5705338 1.4870299 0.035714287  
0.051901374 1 3733 "tags=57%, list=23%, signal=74%"  
REACTOME\_SIGNALING\_BY\_INSULIN\_RECEPTOR  
REACTOME\_SIGNALING\_BY\_INSULIN\_RECEPTOR 90  
0.48083267 1.4869583 0.001106195 0.05163475  
1 4179 "tags=39%, list=26%, signal=52%"  
REACTOME\_REGULATION\_OF\_HYPOXIA\_INDUCIBLE\_FACTOR\_HIF\_BY\_OXYGEN  
REACTOME\_REGULATION\_OF\_HYPOXIA\_INDUCIBLE\_FACTOR\_HIF\_BY\_OXYGEN  
21 0.5862116 1.486153 0.031128405  
0.051741984 1 3270 "tags=48%, list=20%, signal=60%"  
REACTOME\_TRANS\_GOLGI\_NETWORK\_VESICLE\_BUDDING  
REACTOME\_TRANS\_GOLGI\_NETWORK\_VESICLE\_BUDDING 48  
0.50925297 1.4786589 0.03206651 0.05534111  
1 2915 "tags=38%, list=18%, signal=46%"  
REACTOME\_DOWNREGULATION\_OF\_TGF\_BETA\_RECEPTOR\_SIGNALING  
REACTOME\_DOWNREGULATION\_OF\_TGF\_BETA\_RECEPTOR\_SIGNALING  
17 0.6280016 1.4781026 0.040221915  
0.05528069 1 3725 "tags=59%, list=23%, signal=76%"  
REACTOME\_METABOLISM\_OF\_AMINO\_ACIDS\_AND\_DERIVATIVES  
REACTOME\_METABOLISM\_OF\_AMINO\_ACIDS\_AND\_DERIVATIVES 169  
0.44886824 1.4695334 0.003125 0.059624087 1  
3075 "tags=34%, list=19%, signal=41%"

REACTOME_SIGNALING_BY_SCF_KIT	REACTOME_SIGNALING_BY_SCF_KIT		
64	0.49729866	1.4662116	0.017381229
0.06099129	1	2020	"tags=33%, list=13%, signal=37%"
REACTOME_SIGNALING_BY_NOTCH	REACTOME_SIGNALING_BY_NOTCH		
90	0.4654709	1.4477421	0.010952903
0.07214959	1	3410	"tags=38%, list=21%, signal=48%"
REACTOME_GOLGI_ASSOCIATED_VESICLE_BIOGENESIS			
REACTOME_GOLGI_ASSOCIATED_VESICLE_BIOGENESIS			43
0.5124902	1.4454365	0.02166065	0.07329529
1	2915	"tags=37%, list=18%, signal=45%"	
REACTOME_IL_2_SIGNALING	REACTOME_IL_2_SIGNALING		38
0.5272081	1.4430958	0.024125453	0.07451256
1	2788	"tags=39%, list=17%, signal=48%"	
REACTOME_SIGNALING_BY_RHO_GTPASES	REACTOME_SIGNALING_BY_RHO_GTPASES		
81	0.46811026	1.4415308	0.023359288
0.075124696	1	1951	"tags=22%, list=12%, signal=25%"
REACTOME_MAP_KINASE_ACTIVATION_IN_TLR_CASCADE			
REACTOME_MAP_KINASE_ACTIVATION_IN_TLR_CASCADE			42
0.51065904	1.4413218	0.033573143	0.07486099
1	3051	"tags=40%, list=19%, signal=50%"	
REACTOME_MEMBRANE_TRAFFICKING	REACTOME_MEMBRANE_TRAFFICKING		
106	0.45771813	1.4372097	0.011956521
0.07731212	1	2975	"tags=34%, list=18%, signal=41%"
REACTOME_TRNA_AMINOACYLATION	REACTOME_TRNA_AMINOACYLATION		
37	0.51880366	1.4305457	0.041198503
0.081851564	1	2930	"tags=46%, list=18%, signal=56%"
REACTOME_SIGNALING_BY_ERBB2	REACTOME_SIGNALING_BY_ERBB2		
81	0.46478215	1.4232733	0.012208657
0.08668588	1	3286	"tags=41%, list=20%, signal=51%"
REACTOME_CYTOKINE_SIGNALING_IN_IMMUNE_SYSTEM			
REACTOME_CYTOKINE_SIGNALING_IN_IMMUNE_SYSTEM			213
0.42438123	1.4231553	0	0.08638959
3379	"tags=40%, list=21%, signal=50%"		1
REACTOME_PKB_MEDIATED_EVENTS	REACTOME_PKB_MEDIATED_EVENTS		
22	0.57329684	1.4224935	0.052700922
0.08639353	1	3898	"tags=55%, list=24%, signal=72%"
REACTOME_PROCESSING_OF_CAPPED_INTRONLESS_PRE_MRNA			
REACTOME_PROCESSING_OF_CAPPED_INTRONLESS_PRE_MRNA			19
0.5811632	1.4044877	0.071614586	0.10044746
1	2541	"tags=47%, list=16%, signal=56%"	
REACTOME_G_ALPHA1213_SIGNALLING_EVENTS			
REACTOME_G_ALPHA1213_SIGNALLING_EVENTS			62
0.4705548	1.4008491	0.03207331	0.10297428
1	2988	"tags=32%, list=19%, signal=39%"	
REACTOME_LIPID_DIGESTION_MOBILIZATION_AND_TRANSPORT			
REACTOME_LIPID_DIGESTION_MOBILIZATION_AND_TRANSPORT			
37	0.5067276	1.3982203	0.058894232
0.10484053	1	1717	"tags=22%, list=11%, signal=24%"
REACTOME_INSULIN_RECEPTOR_SIGNALLING_CASCADE			
REACTOME_INSULIN_RECEPTOR_SIGNALLING_CASCADE			72
0.45837775	1.3944067	0.03644647	0.107554585
1	3114	"tags=29%, list=19%, signal=36%"	
REACTOME_TRANSFERRIN_ENDOCYTOSIS_AND_RECYCLING			
REACTOME_TRANSFERRIN_ENDOCYTOSIS_AND_RECYCLING			21

0.5689315	1.3941731	0.07919463	0.10718353
1	4179	"tags=48%, list=26%, signal=64%"	
REACTOME_DEVELOPMENTAL_BIOLOGY	REACTOME_DEVELOPMENTAL_BIOLOGY		
	320	0.41610628	1.3940388
0.10676829	1	3225	"tags=28%, list=20%, signal=34%"
REACTOME_PLATELET_AGGREGATION_PLUG_FORMATION			
REACTOME_PLATELET_AGGREGATION_PLUG_FORMATION			32
0.5189374	1.3908336	0.07033248	0.10905019
1	1958	"tags=28%, list=12%, signal=32%"	
REACTOME_IRON_UPTAKE_AND_TRANSPORT			
REACTOME_IRON_UPTAKE_AND_TRANSPORT			30
0.5132028	1.3858503	0.086185046	0.11278215
1	4179	"tags=43%, list=26%, signal=58%"	
REACTOME_NOTCH1_INTRACELLULAR_DOMAIN_REGULATES_TRANSCRIPTION			
REACTOME_NOTCH1_INTRACELLULAR_DOMAIN_REGULATES_TRANSCRIPTION			
	38	0.50318706	1.3858489
0.11222657	1	3270	"tags=37%, list=20%, signal=46%"
REACTOME_DOWNSTREAM_SIGNALING_OF_ACTIVATED_FGFR			
REACTOME_DOWNSTREAM_SIGNALING_OF_ACTIVATED_FGFR			87
0.44470233	1.3835279	0.028792912	0.113802545
1	3004	"tags=31%, list=19%, signal=38%"	
REACTOME_OXYGEN_DEPENDENT_PROLINE_HYDROXYLATION_OF_HYPOXIA_INDUCIBLE_FACTOR_ALPHA			
REACTOME_OXYGEN_DEPENDENT_PROLINE_HYDROXYLATION_OF_HYPOXIA_INDUCIBLE_FACTOR_ALPHA		15	0.6024506
0.092769444	0.11653545	1	3270
			"tags=47%, list=20%, signal=58%"
REACTOME_SIGNALING_BY_NOTCH1	REACTOME_SIGNALING_BY_NOTCH1		
	61	0.46326584	1.3768913
0.11886141	1	3270	"tags=34%, list=20%, signal=43%"
REACTOME_PI3K_AKT_ACTIVATION	REACTOME_PI3K_AKT_ACTIVATION		
	30	0.51620746	1.3754896
0.11967617	1	2126	"tags=33%, list=13%, signal=38%"
REACTOME_MAPK_TARGETS_NUCLEAR_EVENTS_MEDIATED_BY_MAP_KINASES			
REACTOME_MAPK_TARGETS_NUCLEAR_EVENTS_MEDIATED_BY_MAP_KINASES			
	27	0.52466226	1.3697917
0.124757424	1	3051	"tags=48%, list=19%, signal=59%"
REACTOME_SIGNALING_BY_CONSTITUTIVELY_ACTIVE_EGFR			
REACTOME_SIGNALING_BY_CONSTITUTIVELY_ACTIVE_EGFR			15
0.594575	1.3693995	0.09324324	0.12455175
4849			"tags=67%, list=30%, signal=95%"
REACTOME_METABOLISM_OF_CARBOHYDRATES			
REACTOME_METABOLISM_OF_CARBOHYDRATES			202
0.41117728	1.369196	0.005138746	0.124184676
2948			"tags=28%, list=18%, signal=34%"
REACTOME_GAB1_SIGNALOSOME	REACTOME_GAB1_SIGNALOSOME		32
0.51564765	1.3673989	0.0797546	0.12526618
1	2006	"tags=31%, list=12%, signal=36%"	
REACTOME_CA_DEPENDENT_EVENTS	REACTOME_CA_DEPENDENT_EVENTS		
	26	0.5409789	1.367129
0.12494292	1	3927	"tags=58%, list=24%, signal=76%"
REACTOME_OPIOID_SIGNALLING	REACTOME_OPIOID_SIGNALLING		
	72	0.451319	1.3653657
0.12600851	1	3286	"tags=42%, list=20%, signal=52%"

REACTOME_SIGNALING_BY_FGFR	REACTOME_SIGNALING_BY_FGFR		
96	0.4349534	1.365025	0.035869565
0.1257539	1	3286	"tags=34%, list=20%, signal=43%"
REACTOME_SIGNALLING_TO_ERKS	REACTOME_SIGNALLING_TO_ERKS		
29	0.51831084	1.3638144	0.09147095
0.12634799	1	4739	"tags=48%, list=29%, signal=68%"
REACTOME_DOWNSTREAM_SIGNAL_TRANSDUCTION	REACTOME_DOWNSTREAM_SIGNAL_TRANSDUCTION		
			81
0.43959624	1.3521423	0.056369785	0.13755772
1	3347	"tags=36%, list=21%, signal=45%"	
REACTOME_PRE_NOTCH_EXPRESSION_AND_PROCESSING	REACTOME_PRE_NOTCH_EXPRESSION_AND_PROCESSING		
			37
0.49640688	1.3504195	0.079404466	0.13866757
1	2413	"tags=41%, list=15%, signal=48%"	
REACTOME_SIGNALLING_TO_RAS	REACTOME_SIGNALLING_TO_RAS		
22	0.5413619	1.3473772	0.10396717
0.1411887	1	4739	"tags=55%, list=29%, signal=77%"
REACTOME_CD28_CO_STIMULATION	REACTOME_CD28_CO_STIMULATION		
25	0.52811235	1.3440611	0.0931436
0.1441658	1	1988	"tags=40%, list=12%, signal=46%"
REACTOME_SIGNALING_BY_FGFR_IN_DISEASE	REACTOME_SIGNALING_BY_FGFR_IN_DISEASE		
			107
0.41856766	1.3422688	0.04756757	0.14523934
1	3385	"tags=34%, list=21%, signal=42%"	
REACTOME_PIP3_ACTIVATES_AKT_SIGNALING	REACTOME_PIP3_ACTIVATES_AKT_SIGNALING		
			23
0.53431517	1.34047	0.10381077	0.14651957
2006	"tags=35%, list=12%, signal=40%"		1
REACTOME_GRB2_EVENTS_IN_ERBB2_SIGNALING	REACTOME_GRB2_EVENTS_IN_ERBB2_SIGNALING		
			17
0.56314963	1.3373914	0.113513514	0.14908119
1	5284	"tags=71%, list=33%, signal=105%"	
REACTOME_TRANSPORT_OF_VITAMINS_NUCLEOSIDES_AND_RELATED_MOLECULES	REACTOME_TRANSPORT_OF_VITAMINS_NUCLEOSIDES_AND_RELATED_MOLECULES		
			26
0.15000911	0.51263314	1.336087	0.090561226
1	2810	"tags=35%, list=17%, signal=42%"	
REACTOME_PROTEIN_FOLDING	REACTOME_PROTEIN_FOLDING		
			41
0.48034793	1.3313626	0.103831895	0.15435883
1	3014	"tags=37%, list=19%, signal=45%"	
REACTOME_RNA_POL_III_TRANSCRIPTION_INITIATION_FROM_TYPE_2_PROMOTER	REACTOME_RNA_POL_III_TRANSCRIPTION_INITIATION_FROM_TYPE_2_PROMOTER		
			19
0.16066085	0.54879355	1.3250803	0.125855
1	2514	"tags=42%, list=16%, signal=50%"	
REACTOME_INTERFERON_GAMMA_SIGNALING	REACTOME_INTERFERON_GAMMA_SIGNALING		
			41
0.46971253	1.3242685	0.103785105	0.16082138
1	3927	"tags=49%, list=24%, signal=64%"	
REACTOME_INTRINSIC_PATHWAY_FOR_APOPTOSIS	REACTOME_INTRINSIC_PATHWAY_FOR_APOPTOSIS		
			27
0.5078573	1.3212428	0.114173226	0.16370907
1	3594	"tags=63%, list=22%, signal=81%"	
REACTOME_TCR_SIGNALING	REACTOME_TCR_SIGNALING		
			42
0.47395182	1.3120363	0.09951457	0.17386088
1	3347	"tags=40%, list=21%, signal=51%"	



REACTOME_IL_3_5_AND_GM_CSF_SIGNALING				
REACTOME_IL_3_5_AND_GM_CSF_SIGNALING				39
0.4736197	1.3057634	0.117788464		0.1808304
1	2958	"tags=38%, list=18%, signal=47%"		
REACTOME_PEROXISOMAL_LIPID_METABOLISM				
REACTOME_PEROXISOMAL_LIPID_METABOLISM				19
0.5458747	1.3052243	0.12689655		0.18071304
1	3576	"tags=47%, list=22%, signal=61%"		
REACTOME_NRAGE_SIGNALS_DEATH_THROUGH_JNK				
REACTOME_NRAGE_SIGNALS_DEATH_THROUGH_JNK				32
0.48870337	1.3050854	0.10745891		0.18008006
1	2625	"tags=28%, list=16%, signal=34%"		
REACTOME_IL_RECEPTOR_SHC_SIGNALING				
REACTOME_IL_RECEPTOR_SHC_SIGNALING				25
0.5037273	1.2890283	0.12631579		0.19898382
1	2700	"tags=36%, list=17%, signal=43%"		
REACTOME_INTEGRIN_CELL_SURFACE_INTERACTIONS				
REACTOME_INTEGRIN_CELL_SURFACE_INTERACTIONS				72
0.42530087	1.2887005	0.09572072		0.19861762
1	1958	"tags=19%, list=12%, signal=22%"		
REACTOME_GLUCAGON_SIGNALING_IN_METABOLIC_REGULATION				
REACTOME_GLUCAGON_SIGNALING_IN_METABOLIC_REGULATION				
30	0.4889806	1.288609	0.13071066	0.19787735
1	2014	"tags=30%, list=13%, signal=34%"		
REACTOME_APOPTOTIC_CLEAVAGE_OF_CELLULAR_PROTEINS				
REACTOME_APOPTOTIC_CLEAVAGE_OF_CELLULAR_PROTEINS				32
0.47866452	1.2817689	0.1425	0.20617211	1
3927	"tags=56%, list=24%, signal=74%"			
REACTOME_PI3K_EVENTS_IN_ERBB2_SIGNALING				
REACTOME_PI3K_EVENTS_IN_ERBB2_SIGNALING				34
0.4691399	1.2685235	0.14727722		0.22331908
1	2006	"tags=26%, list=12%, signal=30%"		
REACTOME_SIGNALING_BY_PDGF				
REACTOME_SIGNALING_BY_PDGF				
107	0.4016076	1.2673794		0.09836066
0.22397995	1	3004	"tags=27%, list=19%, signal=33%"	
REACTOME_INSULIN_SYNTHESIS_AND_PROCESSING				
REACTOME_INSULIN_SYNTHESIS_AND_PROCESSING				15
0.54891026	1.2645928	0.17331499		0.22710156
1	4386	"tags=53%, list=27%, signal=73%"		
REACTOME_TRIF_MEDIATED_TLR3_SIGNALING				
REACTOME_TRIF_MEDIATED_TLR3_SIGNALING				63
0.4281533	1.2639191	0.10477299		0.22706622
1	3270	"tags=35%, list=20%, signal=44%"		
REACTOME_DOWNSTREAM_TCR_SIGNALING				
REACTOME_DOWNSTREAM_TCR_SIGNALING				
26	0.48458752	1.2637196		0.15625
0.22637773	1	2642	"tags=38%, list=16%, signal=46%"	
REACTOME_PI3K_EVENTS_IN_ERBB4_SIGNALING				
REACTOME_PI3K_EVENTS_IN_ERBB4_SIGNALING				30
0.47562042	1.2615726	0.15861215		0.22865681
1	2006	"tags=27%, list=12%, signal=30%"		
REACTOME_POST_TRANSLATIONAL_PROTEIN_MODIFICATION				
REACTOME_POST_TRANSLATIONAL_PROTEIN_MODIFICATION				143
0.39191654	1.2592033	0.078306876		0.23111582
1	3798	"tags=37%, list=24%, signal=48%"		

REACTOME\_MYD88\_MAL\_CASCADE\_INITIATED\_ON\_PLASMA\_MEMBRANE  
 REACTOME\_MYD88\_MAL\_CASCADE\_INITIATED\_ON\_PLASMA\_MEMBRANE  
 71 0.4187655 1.2549387 0.12472406  
 0.23637374 1 3051 "tags=34%, list=19%, signal=42%"  
 REACTOME\_THROMBIN\_SIGNALLING\_THROUGH\_PROTEINASE\_ACTIVATED\_RECEPTORS\_PARS  
 REACTOME\_THROMBIN\_SIGNALLING\_THROUGH\_PROTEINASE\_ACTIVATED\_RECEPTORS\_PARS  
 31 0.47291595 1.2535733  
 0.17980295 0.2375061 2014 "tags=35%, list=13%, signal=40%"  
 REACTOME\_DAG\_AND\_IP3\_SIGNALING REACTOME\_DAG\_AND\_IP3\_SIGNALING  
 28 0.4750497 1.2531904 0.16709183  
 0.23716757 1 3286 "tags=46%, list=20%, signal=58%"  
 REACTOME\_MICRORNA\_MIRNA\_BIOGENESIS  
 REACTOME\_MICRORNA\_MIRNA\_BIOGENESIS 17  
 0.52341795 1.2525779 0.1808367 0.23708503  
 1 4097 "tags=59%, list=25%, signal=79%"  
 REACTOME\_ACTIVATED\_NOTCH1\_TRANSMITS\_SIGNAL\_TO\_THE\_NUCLEUS  
 REACTOME\_ACTIVATED\_NOTCH1\_TRANSMITS\_SIGNAL\_TO\_THE\_NUCLEUS  
 24 0.4840843 1.2495642 0.20026526  
 0.24035953 1 1709 "tags=29%, list=11%, signal=33%"  
 REACTOME\_MRNA\_3\_END\_PROCESSING REACTOME\_MRNA\_3\_END\_PROCESSING  
 21 0.4987793 1.2361149 0.2  
 0.25918123 1 3552 "tags=48%, list=22%, signal=61%"  
 REACTOME\_PLC\_BETA\_MEDIATED\_EVENTS REACTOME\_PLC\_BETA\_MEDIATED\_EVENTS  
 38 0.44891536 1.2355055 0.16479401  
 0.25918177 1 3927 "tags=47%, list=24%, signal=62%"  
 REACTOME\_ANTIGEN\_ACTIVATES\_B\_CELL\_RECEPTOR\_LEADING\_TO\_GENERATION\_OF\_SECOND\_MESSENGERS  
 REACTOME\_ANTIGEN\_ACTIVATES\_B\_CELL\_RECEPTOR\_LEADING\_TO\_GENERATION\_OF\_SECOND\_MESSENGERS  
 27 0.48082128  
 1.2348659 0.16494845 0.25911748 1  
 3347 "tags=52%, list=21%, signal=65%"  
 REACTOME\_SYNTHESIS\_SECRETION\_AND\_INACTIVATION\_OF\_GLP1  
 REACTOME\_SYNTHESIS\_SECRETION\_AND\_INACTIVATION\_OF\_GLP1  
 17 0.5144637 1.2325749 0.22252375  
 0.2617169 1 5459 "tags=65%, list=34%, signal=98%"  
 REACTOME\_TRAF6\_MEDIATED\_INDUCTION\_OF\_NFKB\_AND\_MAP\_KINASES\_UPON\_TLR7\_8\_OR\_9\_ACTIVATION  
 REACTOME\_TRAF6\_MEDIATED\_INDUCTION\_OF\_NFKB\_AND\_MAP\_KINASES\_UPON\_TLR7\_8\_OR\_9\_ACTIVATION  
 64 0.41094047 1.232489  
 0.15940367 0.26081252 1 3051 "tags=36%, list=19%, signal=44%"  
 REACTOME\_POST\_NMDA\_RECEPTOR\_ACTIVATION\_EVENTS  
 REACTOME\_POST\_NMDA\_RECEPTOR\_ACTIVATION\_EVENTS 29  
 0.46766838 1.2324373 0.18607596 0.25984812  
 1 2829 "tags=38%, list=18%, signal=46%"  
 REACTOME\_ACYL\_CHAIN\_REMODELLING\_OF\_PS  
 REACTOME\_ACYL\_CHAIN\_REMODELLING\_OF\_PS 15  
 0.5272505 1.228565 0.22115384 0.26482457 1  
 1773 "tags=27%, list=11%, signal=30%"  
 REACTOME\_PI3K\_CASCADE REACTOME\_PI3K\_CASCADE 59  
 0.4183384 1.2266499 0.1616279 0.2666871  
 3406 "tags=27%, list=21%, signal=34%"

REACTOME\_CREB\_PHOSPHORYLATION\_THROUGH\_THE\_ACTIVATION\_OF\_RAS  
 REACTOME\_CREB\_PHOSPHORYLATION\_THROUGH\_THE\_ACTIVATION\_OF\_RAS  
 24 0.48146838 1.226241 0.20316623 0.26623464  
 1 2829 "tags=38%, list=18%, signal=45%"  
 REACTOME\_METABOLISM\_OF\_LIPIDS\_AND\_LIPOPROTEINS  
 REACTOME\_METABOLISM\_OF\_LIPIDS\_AND\_LIPOPROTEINS 395  
 0.35708523 1.2203437 0.034136545 0.27484 1  
 3648 "tags=29%, list=23%, signal=36%"  
 REACTOME\_SIGNALING\_BY\_TGF\_BETA\_RECEPTOR\_COMPLEX  
 REACTOME\_SIGNALING\_BY\_TGF\_BETA\_RECEPTOR\_COMPLEX 50  
 0.424907 1.2199463 0.18072289 0.2743251 1  
 2357 "tags=34%, list=15%, signal=40%"  
 REACTOME\_NUCLEAR\_SIGNALING\_BY\_ERBB4  
 REACTOME\_NUCLEAR\_SIGNALING\_BY\_ERBB4 31  
 0.45640323 1.2179049 0.2244389 0.27646014  
 1 5284 "tags=45%, list=33%, signal=67%"  
 REACTOME\_ACTIVATION\_OF\_NMDA\_RECEPTOR\_UPON\_Glutamate\_BINDING\_AND\_POST  
 SYNAPTIC\_EVENTS  
 REACTOME\_ACTIVATION\_OF\_NMDA\_RECEPTOR\_UPON\_Glutamate\_BINDING\_AND\_POST  
 SYNAPTIC\_EVENTS 33 0.45321473 1.2165005  
 0.20828106 0.27746862 1 2829 "tags=36%,  
 list=18%, signal=44%"  
 REACTOME\_RNA\_POL\_I\_TRANSCRIPTION\_INITIATION  
 REACTOME\_RNA\_POL\_I\_TRANSCRIPTION\_INITIATION 19  
 0.49992546 1.2123783 0.21646747 0.28259194  
 1 4651 "tags=58%, list=29%, signal=81%"  
 REACTOME\_RNA\_POL\_III\_TRANSCRIPTION  
 REACTOME\_RNA\_POL\_III\_TRANSCRIPTION 28  
 0.45576313 1.2084124 0.23126616 0.2880629  
 1 2514 "tags=32%, list=16%, signal=38%"  
 REACTOME\_FATTY\_ACID\_TRIACYLGLYCEROL\_AND\_KETONE\_BODY\_METABOLISM  
 REACTOME\_FATTY\_ACID\_TRIACYLGLYCEROL\_AND\_KETONE\_BODY\_METABOLISM  
 143 0.37382826 1.2049018 0.1256656  
 0.29250348 1 3453 "tags=30%, list=21%, signal=38%"  
 REACTOME\_CD28\_DEPENDENT\_PI3K\_AKT\_SIGNALING  
 REACTOME\_CD28\_DEPENDENT\_PI3K\_AKT\_SIGNALING 18 0.505297  
 1.2038263 0.24696356 0.29305497 1  
 1988 "tags=39%, list=12%, signal=44%"  
 REACTOME\_CELL\_SURFACE\_INTERACTIONS\_AT\_THE\_VASCULAR\_WALL  
 REACTOME\_CELL\_SURFACE\_INTERACTIONS\_AT\_THE\_VASCULAR\_WALL  
 72 0.39667407 1.1961315 0.1804009  
 0.30438137 1 4014 "tags=36%, list=25%, signal=48%"  
 REACTOME\_INTEGRATION\_OF\_ENERGY\_METABOLISM  
 REACTOME\_INTEGRATION\_OF\_ENERGY\_METABOLISM 104  
 0.37871853 1.1923518 0.15098469 0.30969298  
 1 3741 "tags=37%, list=23%, signal=47%"  
 REACTOME\_SPHINGOLIPID\_METABOLISM REACTOME\_SPHINGOLIPID\_METABOLISM  
 50 0.4094894 1.1910682 0.20567375  
 0.31079105 1 5195 "tags=50%, list=32%, signal=74%"  
 REACTOME\_SIGNAL\_AMPLIFICATION REACTOME\_SIGNAL\_AMPLIFICATION  
 29 0.44635376 1.1779573 0.24234694  
 0.33209726 1 3679 "tags=41%, list=23%, signal=54%"  
 REACTOME\_FORMATION\_OF\_TUBULIN\_FOLDING\_INTERMEDIATES\_BY\_CCT\_TRIC  
 REACTOME\_FORMATION\_OF\_TUBULIN\_FOLDING\_INTERMEDIATES\_BY\_CCT\_TRIC

	16	0.4988859	1.1650507	0.25306123
0.3535536	1	2917	"tags=44%, list=18%, signal=53%"	
REACTOME_G_BETA_GAMMA_SIGNALLING_THROUGH_PI3KGAMMA				
REACTOME_G_BETA_GAMMA_SIGNALLING_THROUGH_PI3KGAMMA				24
0.45623758	1.1627133	0.24664879	0.35645515	
1	2876	"tags=46%, list=18%, signal=56%"		
REACTOME_FATTY_ACYL_COA_BIOSYNTHESIS				
REACTOME_FATTY_ACYL_COA_BIOSYNTHESIS				16
0.49761885	1.1615182	0.29655173	0.3572304	
1	2687	"tags=44%, list=17%, signal=52%"		
REACTOME_STRIATED_MUSCLE_CONTRACTION				
REACTOME_STRIATED_MUSCLE_CONTRACTION				23
0.46054882	1.1596441	0.2763685	0.35940903	
1	3435	"tags=35%, list=21%, signal=44%"		
REACTOME_TRIGLYCERIDE_BIOSYNTHESIS				
REACTOME_TRIGLYCERIDE_BIOSYNTHESIS				32
0.42701283	1.1578246	0.27376425	0.3612767	
1	2734	"tags=34%, list=17%, signal=41%"		
REACTOME_INCRETIN_SYNTHESIS_SECRETION_AND_INACTIVATION				
REACTOME_INCRETIN_SYNTHESIS_SECRETION_AND_INACTIVATION				
20	0.47777152	1.154294	0.28820375	0.36637452
1	5459	"tags=65%, list=34%, signal=98%"		
REACTOME_GLYCOPHINGOLIPID_METABOLISM				
REACTOME_GLYCOPHINGOLIPID_METABOLISM				31
0.43511721	1.1508249	0.26349613	0.37142828	
1	5080	"tags=55%, list=32%, signal=80%"		
REACTOME_SIGNALING_BY_ROBO_RECEPTOR				
REACTOME_SIGNALING_BY_ROBO_RECEPTOR				21
0.46765122	1.1505439	0.2931507	0.37065455	
1	1935	"tags=29%, list=12%, signal=32%"		
REACTOME_PREFOLDIN_MEDIATED_TRANSFER_OF_SUBSTRATE_TO_CCT_TRIC				
REACTOME_PREFOLDIN_MEDIATED_TRANSFER_OF_SUBSTRATE_TO_CCT_TRIC				
	21	0.46521753	1.1465011	0.30352303
0.37661865	1	2917	"tags=43%, list=18%, signal=52%"	
REACTOME_NEUROTRANSMITTER_RECEPTOR_BINDING_AND_DOWNSTREAM_TRANSMISSI				
ON_IN_THE_POSTSYNAPTIC_CELL				
REACTOME_NEUROTRANSMITTER_RECEPTOR_BINDING_AND_DOWNSTREAM_TRANSMISSI				
ON_IN_THE_POSTSYNAPTIC_CELL			119	0.36100492
1.1462749	0.21794872	0.3757098	1	
2829	"tags=24%, list=18%, signal=28%"			
REACTOME_GPVI_MEDIATED_ACTIVATION_CASCADE				
REACTOME_GPVI_MEDIATED_ACTIVATION_CASCADE				30
0.43010035	1.1409236	0.27701864	0.38436112	
1	2876	"tags=40%, list=18%, signal=49%"		
REACTOME_PPARA_ACTIVATES_GENE_EXPRESSION				
REACTOME_PPARA_ACTIVATES_GENE_EXPRESSION				89
0.3651034	1.1374336	0.25336322	0.38950095	
1	3894	"tags=31%, list=24%, signal=41%"		
REACTOME_PURINE_METABOLISM				
REACTOME_PURINE_METABOLISM				
	29	0.43587914	1.1349047	0.30472636
0.39282483	1	4301	"tags=59%, list=27%, signal=80%"	
REACTOME_SIGNALING_BY_ILS				95
REACTOME_SIGNALING_BY_ILS				
0.3601196	1.1321762	0.25248072	0.39662513	
1	2986	"tags=34%, list=19%, signal=41%"		

REACTOME_PI_3K_CASCADE	REACTOME_PI_3K_CASCADE	49
0.3922303	1.1321337	0.28211284
1	2006	"tags=18%, list=12%, signal=21%"
REACTOME_ENDOSOMAL_SORTING_COMPLEX_REQUIRED_FOR_TRANSPORT_ESCRT	REACTOME_ENDOSOMAL_SORTING_COMPLEX_REQUIRED_FOR_TRANSPORT_ESCRT	
21	0.45573264	1.1272072
0.40333015	1	3982
1	2006	"tags=57%, list=25%, signal=76%"
REACTOME_NFKB_AND_MAP_KINASES_ACTIVATION_MEDIATED_BY_TLR4_SIGNALING_REPERTOIRE	REACTOME_NFKB_AND_MAP_KINASES_ACTIVATION_MEDIATED_BY_TLR4_SIGNALING_REPERTOIRE	
61	0.37830347	1.1234835
0.2848837	0.4087796	1
1	3571	"tags=36%, list=22%, signal=46%"
REACTOME_G_ALPHA_Z_SIGNALLING_EVENTS	REACTOME_G_ALPHA_Z_SIGNALLING_EVENTS	40
0.39743912	1.1206797	0.30184048
1	2014	"tags=25%, list=13%, signal=29%"
REACTOME_G_PROTEIN_BETA_GAMMA_SIGNALLING	REACTOME_G_PROTEIN_BETA_GAMMA_SIGNALLING	27
0.4200036	1.1033555	0.31906614
1	2876	"tags=41%, list=18%, signal=50%"
REACTOME_ENOS_ACTIVATION_AND_REGULATION	REACTOME_ENOS_ACTIVATION_AND_REGULATION	18
0.4563841	1.1031727	0.3430851
1	1628	"tags=39%, list=10%, signal=43%"
REACTOME_TIE2_SIGNALING	REACTOME_TIE2_SIGNALING	16
0.4641082	1.0965275	0.3452055
1	1977	"tags=25%, list=12%, signal=28%"
REACTOME_NEPHRIN_INTERACTIONS	REACTOME_NEPHRIN_INTERACTIONS	
15	0.47646946	1.0902483
0.46624845	1	3347
1	3347	"tags=40%, list=21%, signal=50%"
REACTOME_ADP_SIGNALLING_THROUGH_P2RY12	REACTOME_ADP_SIGNALLING_THROUGH_P2RY12	19
0.4456618	1.0875566	0.36806494
1	2763	"tags=37%, list=17%, signal=44%"
REACTOME_IL1_SIGNALING	REACTOME_IL1_SIGNALING	34
0.39861977	1.0753284	0.38131315
1	2986	"tags=32%, list=19%, signal=40%"
REACTOME_ACTIVATED_TLR4_SIGNALLING	REACTOME_ACTIVATED_TLR4_SIGNALLING	81
0.34826952	1.0674802	0.36141908
1	2829	"tags=28%, list=18%, signal=34%"
REACTOME_FORMATION_OF_INCISION_COMPLEX_IN_GG_NER	REACTOME_FORMATION_OF_INCISION_COMPLEX_IN_GG_NER	19
0.4433623	1.0641192	0.40104848
1	4651	"tags=53%, list=29%, signal=74%"
REACTOME_GABA_SYNTHESIS_RELEASE_REUPTAKE_AND_DEGRADATION	REACTOME_GABA_SYNTHESIS_RELEASE_REUPTAKE_AND_DEGRADATION	
17	0.44204354	1.0592654
0.52082014	1	14
1	14	"tags=6%, list=0%, signal=6%"
REACTOME_RNA_POL_III_TRANSCRIPTION_TERMINATION	REACTOME_RNA_POL_III_TRANSCRIPTION_TERMINATION	15
0.45738745	1.0563631	0.40189445
1	2362	"tags=33%, list=15%, signal=39%"

REACTOME_PHOSPHOLIPID_METABOLISM	REACTOME_PHOSPHOLIPID_METABOLISM				
159	0.32667845	1.0560291	0.3788038		
0.5239411	1	5080	"tags=40%, list=32%, signal=57%"		
REACTOME_NEGATIVE_REGULATION_OF_FGFR_SIGNALING					
REACTOME_NEGATIVE_REGULATION_OF_FGFR_SIGNALING				33	
0.39328125	1.0539385	0.40076336	0.52655345		
1	1958	"tags=21%, list=12%, signal=24%"			
REACTOME_REGULATION_OF_WATER_BALANCE_BY_RENAL_AQUAPORINS					
REACTOME_REGULATION_OF_WATER_BALANCE_BY_RENAL_AQUAPORINS					
40	0.3781114	1.0498848	0.40243903		
0.5329458	1	2014	"tags=25%, list=13%, signal=29%"		
REACTOME_PLATELET_HOMEOSTASIS	REACTOME_PLATELET_HOMEOSTASIS				
71	0.34320095	1.0437512	0.42519686		
0.54382837	1	3743	"tags=28%, list=23%, signal=37%"		
REACTOME_TRANSMISSION_ACROSS_CHEMICAL_SYNAPSES					
REACTOME_TRANSMISSION_ACROSS_CHEMICAL_SYNAPSES				166	
0.32143307	1.0426464	0.40226337	0.5442828		
1	2909	"tags=19%, list=18%, signal=23%"			
REACTOME_FORMATION_OF_TRANSCRIPTION_COUPLED_NER_TC_NER_REPAIR_COMPLE					
X					
REACTOME_FORMATION_OF_TRANSCRIPTION_COUPLED_NER_TC_NER_REPAIR_COMPLE					
X	23	0.40521893	1.0410866		
0.42302543	0.54568195	1	4651	"tags=52%, list=29%, signal=73%"	
REACTOME_RNA_POL_III_TRANSCRIPTION_INITIATION_FROM_TYPE_3_PROMOTER					
REACTOME_RNA_POL_III_TRANSCRIPTION_INITIATION_FROM_TYPE_3_PROMOTER					
21	0.41680393	1.0372066	0.44625852		
0.5522046	1	2514	"tags=33%, list=16%, signal=39%"		
REACTOME_RNA_POL_I_TRANSCRIPTION_TERMINATION					
REACTOME_RNA_POL_I_TRANSCRIPTION_TERMINATION				16	
0.43861082	1.0372064	0.43539324	0.55038816		
1	4651	"tags=50%, list=29%, signal=70%"			
REACTOME_INNATE_IMMUNE_SYSTEM	REACTOME_INNATE_IMMUNE_SYSTEM				
190	0.31323275	1.03396	0.4376931		
0.55528086	1	2829	"tags=26%, list=18%, signal=32%"		
REACTOME_REGULATION_OF_SIGNALING_BY_CBL					
REACTOME_REGULATION_OF_SIGNALING_BY_CBL				16	
0.4428787	1.0334655	0.44459644	0.55443305		
1	2958	"tags=31%, list=18%, signal=38%"			
REACTOME_PRE_NOTCH_TRANSCRIPTION_AND_TRANSLATION					
REACTOME_PRE_NOTCH_TRANSCRIPTION_AND_TRANSLATION				24	
0.401224	1.0327336	0.42444152	0.5540947		
4062	"tags=50%, list=25%, signal=67%"				
REACTOME_SIGNALING_BY_HIPPO	REACTOME_SIGNALING_BY_HIPPO				
16	0.43369883	1.0196912	0.4480432		
0.5785788	1	4940	"tags=50%, list=31%, signal=72%"		
REACTOME_ACTIVATION_OF_KAINATE_RECEPTORS_UPON GLUTAMATE_BINDING					
REACTOME_ACTIVATION_OF_KAINATE_RECEPTORS_UPON GLUTAMATE_BINDING					
29	0.38892907	1.01944	0.47409326		
0.57720757	1	2763	"tags=31%, list=17%, signal=37%"		
REACTOME_SIGNALING_BY_FGFR1_FUSION_MUTANTS					
REACTOME_SIGNALING_BY_FGFR1_FUSION_MUTANTS				15	
0.43399853	1.017579	0.4488712	0.57907397		
5630	"tags=60%, list=35%, signal=92%"			1	

REACTOME\_THROMBOXANE\_SIGNALLING\_THROUGH\_TP\_RECEPTOR  
 REACTOME\_THROMBOXANE\_SIGNALLING\_THROUGH\_TP\_RECEPTOR  
 22 0.40807655 1.0146043 0.4814815 0.583477  
 1 2014 "tags=27%, list=13%, signal=31%"  
 REACTOME\_SULFUR\_AMINO\_ACID\_METABOLISM  
 REACTOME\_SULFUR\_AMINO\_ACID\_METABOLISM 21  
 0.40635842 1.0111812 0.46866485 0.5887128  
 1 5281 "tags=57%, list=33%, signal=85%"  
 REACTOME\_SLC\_MEDIATED\_TRANSMEMBRANE\_TRANSPORT  
 REACTOME\_SLC\_MEDIATED\_TRANSMEMBRANE\_TRANSPORT 211  
 0.30356 1.0059482 0.491353 0.59726053 1  
 4224 "tags=26%, list=26%, signal=35%"  
 REACTOME\_PHOSPHOLIPASE\_C\_MEDIATED\_CASCADE  
 REACTOME\_PHOSPHOLIPASE\_C\_MEDIATED\_CASCADE 49  
 0.34682494 1.0021098 0.48739496 0.6030427  
 1 3286 "tags=27%, list=20%, signal=33%"  
 REACTOME\_ASSOCIATION\_OF\_TRIC\_CCT\_WITH\_TARGET\_PROTEINS\_DURING\_BIOSYNT  
 HESIS  
 REACTOME\_ASSOCIATION\_OF\_TRIC\_CCT\_WITH\_TARGET\_PROTEINS\_DURING\_BIOSYNT  
 HESIS 23 0.3932797 1.0008059  
 0.48021108 0.60367227 1 5068 "tags=48%,  
 list=31%, signal=70%"  
 REACTOME\_GLYCEROPHOSPHOLIPID\_BIOSYNTHESIS  
 REACTOME\_GLYCEROPHOSPHOLIPID\_BIOSYNTHESIS 70  
 0.33080915 1.0003648 0.48350397 0.6025836  
 1 5356 "tags=39%, list=33%, signal=58%"  
 REACTOME\_ADP\_SIGNALLING\_THROUGH\_P2RY1  
 REACTOME\_ADP\_SIGNALLING\_THROUGH\_P2RY1 24  
 0.39727604 1.00033 0.48687664 0.6007422 1  
 3051 "tags=33%, list=19%, signal=41%"  
 REACTOME\_PERK\_REGULATED\_GENE\_EXPRESSION  
 REACTOME\_PERK\_REGULATED\_GENE\_EXPRESSION 21  
 0.39879778 0.99224234 0.4812903 0.61535025  
 1 3487 "tags=38%, list=22%, signal=49%"  
 REACTOME\_PKA\_MEDIATED\_PHOSPHORYLATION\_OF\_CREB  
 REACTOME\_PKA\_MEDIATED\_PHOSPHORYLATION\_OF\_CREB 15  
 0.43633595 0.9911224 0.5155807 0.615563 1  
 3286 "tags=40%, list=20%, signal=50%"  
 REACTOME\_TOLL\_RECEPTOR\_CASCADES REACTOME\_TOLL\_RECEPTOR\_CASCADES  
 98 0.31087464 0.99026185 0.4977827  
 0.6153422 1 2829 "tags=27%, list=18%, signal=32%"  
 REACTOME\_SYNTHESIS\_OF\_PA REACTOME\_SYNTHESIS\_OF\_PA 24  
 0.38889664 0.9887992 0.48914433 0.6163913  
 1 3619 "tags=33%, list=22%, signal=43%"  
 REACTOME\_EFFECTS\_OF\_PIP2\_HYDROLYSIS  
 REACTOME\_EFFECTS\_OF\_PIP2\_HYDROLYSIS 22  
 0.39202818 0.98717725 0.5152318 0.6176327  
 1 3927 "tags=36%, list=24%, signal=48%"  
 REACTOME\_TRANSPORT\_TO\_THE\_GOLGI\_AND\_SUBSEQUENT\_MODIFICATION  
 REACTOME\_TRANSPORT\_TO\_THE\_GOLGI\_AND\_SUBSEQUENT\_MODIFICATION  
 30 0.37257278 0.98187286 0.50125 0.62634236  
 1 3608 "tags=40%, list=22%, signal=51%"  
 REACTOME\_AQUAPORIN\_MEDIATED\_TRANSPORT  
 REACTOME\_AQUAPORIN\_MEDIATED\_TRANSPORT 46

0.34712666	0.975205	0.5356711	0.6374958	1
2014	"tags=22%, list=13%, signal=25%"			
REACTOME_METAL_ION_SLC_TRANSPORTERS				
REACTOME_METAL_ION_SLC_TRANSPORTERS				19
0.40363133	0.9745841	0.52005535	0.63671607	
1	4675	"tags=42%, list=29%, signal=59%"		
REACTOME_TRANSMEMBRANE_TRANSPORT_OF_SMALL_MOLECULES				
REACTOME_TRANSMEMBRANE_TRANSPORT_OF_SMALL_MOLECULES				
356	0.28757602	0.9745736	0.5780463	
0.63478553	1	4288	"tags=27%, list=27%, signal=36%"	
REACTOME_PROSTACYCLIN_SIGNALLING_THROUGH_PROSTACYCLIN_RECEPTOR				
REACTOME_PROSTACYCLIN_SIGNALLING_THROUGH_PROSTACYCLIN_RECEPTOR				
	18	0.407628	0.9711098	0.51424694
0.6396208	1	2763	"tags=33%, list=17%, signal=40%"	
REACTOME_DESTABILIZATION_OF_MRNA_BY_TRISTETRAPROLIN_TTP				
REACTOME_DESTABILIZATION_OF_MRNA_BY_TRISTETRAPROLIN_TTP				
15	0.41718024	0.96045655	0.5246132	
0.65844065	1	3487	"tags=33%, list=22%, signal=43%"	
REACTOME_MITOCHONDRIAL_TRNA_AMINOACYLATION				
REACTOME_MITOCHONDRIAL_TRNA_AMINOACYLATION				18
0.3924648	0.9499798	0.5331492	0.67670494	
1	1800	"tags=28%, list=11%, signal=31%"		
REACTOME_REGULATION_OF_INSULIN_SECRETION				
REACTOME_REGULATION_OF_INSULIN_SECRETION				80
0.3093804	0.9483786	0.5709459	0.67753243	
1	3741	"tags=31%, list=23%, signal=41%"		
REACTOME_NEGATIVE_REGULATORS_OF_RIG_I_MDA5_SIGNALING				
REACTOME_NEGATIVE_REGULATORS_OF_RIG_I_MDA5_SIGNALING				
24	0.3742998	0.94706905	0.5561358	
0.67812914	1	3947	"tags=38%, list=25%, signal=50%"	
REACTOME_LIPOPROTEIN_METABOLISM				REACTOME_LIPOPROTEIN_METABOLISM
	22	0.37931678	0.94561166	0.54392767
0.67891866	1	3738	"tags=27%, list=23%, signal=35%"	
REACTOME_REGULATORY_RNA_PATHWAYS				REACTOME_REGULATORY_RNA_PATHWAYS
	20	0.3853273	0.94507325	0.5572917
0.6778869	1	4097	"tags=50%, list=25%, signal=67%"	
REACTOME_G_PROTEIN_ACTIVATION				REACTOME_G_PROTEIN_ACTIVATION
	25	0.370242	0.93932855	0.5716163
0.68680036	1	2763	"tags=28%, list=17%, signal=34%"	
REACTOME_NETRIN1_SIGNALING				REACTOME_NETRIN1_SIGNALING
	33	0.34604663	0.93743914	0.56511056
0.68826306	1	3917	"tags=27%, list=24%, signal=36%"	
REACTOME_GROWTH_HORMONE_RECEPTOR_SIGNALING				
REACTOME_GROWTH_HORMONE_RECEPTOR_SIGNALING				20
0.38019186	0.93008614	0.56568366	0.6995211	
5035	"tags=55%, list=31%, signal=80%"			
REACTOME_ACYL_CHAIN_REMODELLING_OF_PE				
REACTOME_ACYL_CHAIN_REMODELLING_OF_PE				20
0.3824634	0.92929184	0.56901044	0.6989235	
1	1773	"tags=20%, list=11%, signal=22%"		
REACTOME_FRS2_MEDIATED_CASCADE				REACTOME_FRS2_MEDIATED_CASCADE
	33	0.34336466	0.92478293	0.60831237
0.7053286	1	4666	"tags=30%, list=29%, signal=43%"	
REACTOME_SMAD2_SMAD3_SMAD4_HETEROTRIMER_REGULATES_TRANSCRIPTION				



REACTOME\_SMAD2\_SMAD3\_SMAD4\_HETEROTRIMER\_REGULATES\_TRANSCRIPTION  
 21 0.37260628 0.9216183 0.59031415  
 0.70909363 1 3389 "tags=43%, list=21%, signal=54%"  
 REACTOME\_PHASE\_II\_CONJUGATION REACTOME\_PHASE\_II\_CONJUGATION  
 44 0.32906285 0.9212346 0.61660564  
 0.70773405 1 5243 "tags=39%, list=33%, signal=57%"  
 REACTOME\_SPHINGOLIPID\_DE\_NOVO\_BIOSYNTHESIS  
 REACTOME\_SPHINGOLIPID\_DE\_NOVO\_BIOSYNTHESIS 19  
 0.37807366 0.91877854 0.5953361 0.710276 1  
 5533 "tags=47%, list=34%, signal=72%"  
 REACTOME\_NCAM\_SIGNALING\_FOR\_NEURITE\_OUT\_GROWTH  
 REACTOME\_NCAM\_SIGNALING\_FOR\_NEURITE\_OUT\_GROWTH 51  
 0.3165836 0.9146666 0.61117715 0.7157686  
 1 2829 "tags=22%, list=18%, signal=26%"  
 REACTOME\_RIP\_MEDIATED\_NFKB\_ACTIVATION\_VIA\_DAI  
 REACTOME\_RIP\_MEDIATED\_NFKB\_ACTIVATION\_VIA\_DAI 17  
 0.38333574 0.90554047 0.6179625 0.7302101  
 1 1805 "tags=24%, list=11%, signal=26%"  
 REACTOME\_DESTABILIZATION\_OF\_MRNA\_BY\_BRF1  
 REACTOME\_DESTABILIZATION\_OF\_MRNA\_BY\_BRF1 15  
 0.39177057 0.90506816 0.614654 0.7288746 1  
 3487 "tags=33%, list=22%, signal=43%"  
 REACTOME\_CELL\_CELL\_COMMUNICATION REACTOME\_CELL\_CELL\_COMMUNICATION  
 98 0.28731665 0.89969385 0.6794311  
 0.7362808 1 3454 "tags=23%, list=21%, signal=30%"  
 REACTOME\_ION\_TRANSPORT\_BY\_P\_TYPE\_ATPASES  
 REACTOME\_ION\_TRANSPORT\_BY\_P\_TYPE\_ATPASES 28  
 0.34385026 0.89566666 0.62627554 0.7412477  
 1 2081 "tags=21%, list=13%, signal=25%"  
 REACTOME\_INTERFERON\_ALPHA\_BETA\_SIGNALING  
 REACTOME\_INTERFERON\_ALPHA\_BETA\_SIGNALING 45  
 0.31525612 0.8876015 0.6598311 0.75348085  
 1 3776 "tags=40%, list=23%, signal=52%"  
 REACTOME\_IMMUNOREGULATORY\_INTERACTIONS\_BETWEEN\_A\_LYMPHOID\_AND\_A\_NON\_  
 LYMPHOID\_CELL  
 REACTOME\_IMMUNOREGULATORY\_INTERACTIONS\_BETWEEN\_A\_LYMPHOID\_AND\_A\_NON\_  
 LYMPHOID\_CELL 38 0.32090333 0.8851272  
 0.64683545 0.7556571 1 4261 "tags=42%,  
 list=26%, signal=57%"  
 REACTOME\_NEUROTRANSMITTER\_RELEASE\_CYCLE  
 REACTOME\_NEUROTRANSMITTER\_RELEASE\_CYCLE 33  
 0.3308476 0.88227636 0.65473145 0.7583941  
 1 14 "tags=3%, list=0%, signal=3%"  
 REACTOME\_TRANSCRIPTIONAL\_REGULATION\_OF\_WHITE\_ADIPOCYTE\_DIFFERENTIATI  
 ON  
 REACTOME\_TRANSCRIPTIONAL\_REGULATION\_OF\_WHITE\_ADIPOCYTE\_DIFFERENTIATI  
 ON 62 0.2924625 0.8729698  
 0.6913146 0.772256 1 3225 "tags=24%, list=20%,  
 signal=30%"  
 REACTOME\_PTM\_GAMMA\_CARBOXYLATION\_HYPUSINE\_FORMATION\_AND\_ARYLSULFATAS  
 E\_ACTIVATION  
 REACTOME\_PTM\_GAMMA\_CARBOXYLATION\_HYPUSINE\_FORMATION\_AND\_ARYLSULFATAS  
 E\_ACTIVATION 21 0.35109916 0.86015105  
 0.6716016 0.79150736 1 1186 "tags=19%,

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list=7%, signal=21%"
REACTOME_BASIGIN_INTERACTIONS      REACTOME_BASIGIN_INTERACTIONS
      22      0.33642042      0.84969556      0.68175584
0.8063928      1      3985      "tags=41%, list=25%, signal=54%"
REACTOME_ACTIVATION_OF_GENES_BY_ATF4
REACTOME_ACTIVATION_OF_GENES_BY_ATF4      19
0.34159008      0.8422937      0.70872486      0.8162125
1      5433      "tags=53%, list=34%, signal=79%"
REACTOME_RIG_I_MDA5_MEDIATED_INDUCTION_OF_IFN_ALPHA_BETA_PATHWAYS
REACTOME_RIG_I_MDA5_MEDIATED_INDUCTION_OF_IFN_ALPHA_BETA_PATHWAYS
      58      0.28638497      0.8354551      0.7361751
0.8249568      1      3270      "tags=26%, list=20%, signal=32%"
REACTOME_INHIBITION_OF_VOLTAGE_GATED_CA2_CHANNELS_VIA_GBETA_GAMMA_SU
BUNITS
REACTOME_INHIBITION_OF_VOLTAGE_GATED_CA2_CHANNELS_VIA_GBETA_GAMMA_SU
BUNITS      22      0.33302817      0.8295597
0.7168597      0.8319584      1      2763      "tags=23%,
list=17%, signal=27%"
REACTOME_PI_METABOLISM      REACTOME_PI_METABOLISM      40
0.2889518      0.8118715      0.77926826      0.85643053
1      4479      "tags=40%, list=28%, signal=55%"
REACTOME_GABA_B_RECEPTOR_ACTIVATION
REACTOME_GABA_B_RECEPTOR_ACTIVATION      33
0.29824442      0.80482125      0.75930524      0.8642466
1      2014      "tags=18%, list=13%, signal=21%"
REACTOME_CREB_PHOSPHORYLATION_THROUGH_THE_ACTIVATION_OF_CAMKII
REACTOME_CREB_PHOSPHORYLATION_THROUGH_THE_ACTIVATION_OF_CAMKII
      15      0.34690943      0.79947126      0.75137365
0.8696085      1      2829      "tags=27%, list=18%, signal=32%"
REACTOME_SIGNALING_BY_GPCR      REACTOME_SIGNALING_BY_GPCR
      496      0.23503175      0.79673827      0.966967
0.8711433      1      2992      "tags=17%, list=19%, signal=20%"
REACTOME_MYOGENESIS      REACTOME_MYOGENESIS      23
0.31608462      0.79618317      0.77380955      0.8694966
1      3051      "tags=22%, list=19%, signal=27%"
REACTOME_SIGNALING_BY_FGFR1_MUTANTS
REACTOME_SIGNALING_BY_FGFR1_MUTANTS      26
0.3035993      0.7928136      0.78210115      0.87184393
1      6876      "tags=54%, list=43%, signal=94%"
REACTOME_REGULATION_OF_GENE_EXPRESSION_IN_BETA_CELLS
REACTOME_REGULATION_OF_GENE_EXPRESSION_IN_BETA_CELLS
      18      0.32683465      0.7886911      0.7480315
0.87529975      1      3475      "tags=22%, list=22%, signal=28%"
REACTOME_REGULATION_OF_INSULIN_SECRETION_BY_GLUCAGON_LIKE_PEPTIDE1
REACTOME_REGULATION_OF_INSULIN_SECRETION_BY_GLUCAGON_LIKE_PEPTIDE1
      37      0.28737226      0.7884001      0.79551125
0.87325954      1      2763      "tags=27%, list=17%, signal=33%"
REACTOME_SHC_MEDIATED_CASCADE      REACTOME_SHC_MEDIATED_CASCADE
      26      0.3032395      0.7789972      0.7911803
0.8838116      1      1958      "tags=12%, list=12%, signal=13%"
REACTOME_TRANSCRIPTIONAL_ACTIVITY_OF_SMAD2_SMAD3_SMAD4_HETEROTRIMER
REACTOME_TRANSCRIPTIONAL_ACTIVITY_OF_SMAD2_SMAD3_SMAD4_HETEROTRIMER
      29      0.29475316      0.7788836      0.7989556
0.8815507      1      3389      "tags=34%, list=21%, signal=44%"

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REACTOME_NEURONAL_SYSTEM	REACTOME_NEURONAL_SYSTEM	243
0.23390295	0.7780947	0.92740285 0.8802297
1	2909	"tags=16%, list=18%, signal=19%"
REACTOME_Glutathione_Conjugation	REACTOME_Glutathione_Conjugation	
21	0.31055108	0.77331996 0.7629139
0.8843205	1	4258 "tags=43%, list=26%, signal=58%"
REACTOME_Acyl_Chain_Remodelling_of_PC	REACTOME_Acyl_Chain_Remodelling_of_PC	20
0.3193281	0.77125436	0.79360855 0.8845448
1	1773	"tags=15%, list=11%, signal=17%"
REACTOME_Ion_Channel_Transport	REACTOME_Ion_Channel_Transport	
46	0.26774627	0.7548999 0.8424821
0.9026321	1	2081 "tags=13%, list=13%, signal=15%"
REACTOME_Circadian_Repression_of_Expression_by_Rev_Erba	REACTOME_Circadian_Repression_of_Expression_by_Rev_Erba	
21	0.30232504	0.74939084 0.8337731
0.9067431	1	4336 "tags=38%, list=27%, signal=52%"
REACTOME_Signaling_by_FGFR_Mutants	REACTOME_Signaling_by_FGFR_Mutants	39
0.26977748	0.74206233	0.8626506 0.91293716
1	6876	"tags=51%, list=43%, signal=89%"
REACTOME_Yap1_and_Wwtr1_Taz_Stimulated_Gene_Expression	REACTOME_Yap1_and_Wwtr1_Taz_Stimulated_Gene_Expression	
22	0.2998875	0.7358706 0.8599476
0.9178227	1	6114 "tags=45%, list=38%, signal=73%"
REACTOME_Rora_Activates_Circadian_Expression	REACTOME_Rora_Activates_Circadian_Expression	22
0.29237083	0.72619385	0.8326586 0.92630196
1	4336	"tags=36%, list=27%, signal=50%"
REACTOME_Steroid_Hormones	REACTOME_Steroid_Hormones	26
0.27913076	0.7251906	0.8565841 0.92500573
1	1272	"tags=12%, list=8%, signal=13%"
REACTOME_G_Beta_Gamma_Signalling_Through_Plc_Beta	REACTOME_G_Beta_Gamma_Signalling_Through_Plc_Beta	19
0.29685807	0.7239235	0.8379814 0.9238416
1	2763	"tags=26%, list=17%, signal=32%"
REACTOME_Regulation_of_IFNA_Signaling	REACTOME_Regulation_of_IFNA_Signaling	19
0.29616362	0.7205028	0.8426667 0.9250849
1	4272	"tags=32%, list=27%, signal=43%"
REACTOME_GABA_Receptor_Activation	REACTOME_GABA_Receptor_Activation	
45	0.25154182	0.70793205 0.90311
0.9350785	1	2014 "tags=13%, list=13%, signal=15%"
REACTOME_Metabolism_of_Steroid_Hormones_and_Vitamins_A_and_D	REACTOME_Metabolism_of_Steroid_Hormones_and_Vitamins_A_and_D	
32	0.26271537	0.70653045 0.8852868
0.9339455	1	2354 "tags=16%, list=15%, signal=18%"
REACTOME_Inhibition_of_Insulin_Secretion_by_Adrenaline_Noradrenaline	REACTOME_Inhibition_of_Insulin_Secretion_by_Adrenaline_Noradrenaline	
23	0.28021055	0.705044 0.8558201
0.9329754	1	2014 "tags=22%, list=13%, signal=25%"
REACTOME_Traf6_Mediated_IRF7_Activation	REACTOME_Traf6_Mediated_IRF7_Activation	23

0.27642128      0.69903994      0.85064936      0.93617606  
1      3221      "tags=30%, list=20%, signal=38%"  
REACTOME\_CELL\_JUNCTION\_ORGANIZATION  
REACTOME\_CELL\_JUNCTION\_ORGANIZATION      65  
0.23175707      0.69037074      0.9266589      0.9416039  
1      3680      "tags=20%, list=23%, signal=26%"  
REACTOME\_BIOLOGICAL\_OXIDATIONS      REACTOME\_BIOLOGICAL\_OXIDATIONS  
84      0.2209486      0.6837002      0.9609811  
0.9449094      1      5003      "tags=29%, list=31%, signal=41%"  
REACTOME\_SYNTHESIS\_OF\_BILE\_ACIDS\_AND\_BILE\_SALTS  
REACTOME\_SYNTHESIS\_OF\_BILE\_ACIDS\_AND\_BILE\_SALTS      18  
0.27103505      0.6612517      0.8800558      0.9604295  
1      3433      "tags=22%, list=21%, signal=28%"  
REACTOME\_TAK1\_ACTIVATES\_NFKB\_BY\_PHOSPHORYLATION\_AND\_ACTIVATION\_OF\_IK  
KS\_COMPLEX  
REACTOME\_TAK1\_ACTIVATES\_NFKB\_BY\_PHOSPHORYLATION\_AND\_ACTIVATION\_OF\_IK  
KS\_COMPLEX      19      0.2753058      0.65421236  
0.9092123      0.9629734      1      1805      "tags=16%,  
list=11%, signal=18%"  
REACTOME\_GASTRIN\_CREB\_SIGNALLING\_PATHWAY\_VIA\_PKC\_AND\_MAPK  
REACTOME\_GASTRIN\_CREB\_SIGNALLING\_PATHWAY\_VIA\_PKC\_AND\_MAPK  
172      0.19884135      0.6470578      0.9907407  
0.9651953      1      5481      "tags=34%, list=34%, signal=51%"  
REACTOME\_ACYL\_CHAIN\_REMODELLING\_OF\_PG  
REACTOME\_ACYL\_CHAIN\_REMODELLING\_OF\_PG      15  
0.2709748      0.62259144      0.9212707      0.977045 1  
6357      "tags=47%, list=39%, signal=77%"  
REACTOME\_AMINE\_LIGAND\_BINDING\_RECEPTORS  
REACTOME\_AMINE\_LIGAND\_BINDING\_RECEPTORS      34  
0.23039414      0.618259      0.94199246      0.9766749      1  
5919      "tags=44%, list=37%, signal=70%"  
REACTOME\_TRANSPORT\_OF\_GLUCOSE\_AND\_OTHER\_SUGARS\_BILE\_SALTS\_AND\_ORGANI  
C\_ACIDS\_METAL\_IONS\_AND\_AMINE\_COMPOUNDS  
REACTOME\_TRANSPORT\_OF\_GLUCOSE\_AND\_OTHER\_SUGARS\_BILE\_SALTS\_AND\_ORGANI  
C\_ACIDS\_METAL\_IONS\_AND\_AMINE\_COMPOUNDS      77  
0.19574025      0.5972136      0.9889625      0.9839573  
1      4769      "tags=23%, list=30%, signal=33%"  
REACTOME\_AMINO\_ACID\_TRANSPORT\_ACROSS\_THE\_PLASMA\_MEMBRANE  
REACTOME\_AMINO\_ACID\_TRANSPORT\_ACROSS\_THE\_PLASMA\_MEMBRANE  
27      0.21992444      0.5768872      0.9670051  
0.9891975      1      6400      "tags=52%, list=40%, signal=86%"  
REACTOME\_ADHERENS\_JUNCTIONS\_INTERACTIONS  
REACTOME\_ADHERENS\_JUNCTIONS\_INTERACTIONS      22  
0.22494422      0.55687165      0.96925133      0.9928596  
1      451      "tags=5%, list=3%, signal=5%"  
REACTOME\_SYNTHESIS\_OF\_PIPS\_AT\_THE\_PLASMA\_MEMBRANE  
REACTOME\_SYNTHESIS\_OF\_PIPS\_AT\_THE\_PLASMA\_MEMBRANE      26  
0.21720828      0.55668706      0.97800773      0.9903575  
1      2876      "tags=23%, list=18%, signal=28%"  
REACTOME\_AMINO\_ACID\_AND\_OLIGOPEPTIDE\_SLC\_TRANSPORTERS  
REACTOME\_AMINO\_ACID\_AND\_OLIGOPEPTIDE\_SLC\_TRANSPORTERS  
45      0.18233047      0.51824576      0.9963592  
0.99573106      1      6754      "tags=47%, list=42%, signal=80%"  
REACTOME\_BILE\_ACID\_AND\_BILE\_SALT\_METABOLISM

REACTOME_BILE_ACID_AND_BILE_SALT_METABOLISM				23
0.19808148	0.504981	0.9894459	0.9951909	1
6300	"tags=43%, list=39%, signal=71%"			
REACTOME_GAP_JUNCTION_TRAFFICKING	REACTOME_GAP_JUNCTION_TRAFFICKING			
21	0.19025835	0.47218207	0.992053	
0.9962331	1	6616	"tags=48%, list=41%, signal=81%"	