

Table S2 KEGG enrichment result by GSEA for *GSTM2* (c2.all.v6.2.symbols.gmt)

NAME	SIZ E	ES	NES	NOM p-val	FDR q-val
PENG_GLUTAMINE_DEPRIVATION_DN	324	0.6415	2.3145	<0.000	8.47E-04
RHEIN_ALL_GLUCOCORTICOID_THERAPY_DN	348	0.6613	2.3154	<0.000	0.0010
TARTE_PLASMA_CELL_VS_PLASMABLAST_DN	300	0.6546	2.2707	<0.000	0.0013
WONG_PROTEASOME_GENE_MODULE	49	0.7313	2.2724	<0.000	0.0013
BORCZUK_MALIGNANT_MESOTHELIOMA_UP	291	0.6472	2.3209	<0.000	0.0014
PENG_LEUCINE_DEPRIVATION_DN	182	0.6613	2.2584	<0.000	0.0014
PENG_RAPAMYCIN_RESPONSE_DN	229	0.6621	2.2815	<0.000	0.0016
CHIANG_LIVER_CANCER_SUBCLASS_UNANNOTATED_DN	182	0.7398	2.2471	<0.000	0.0016
BASSO_B_LYMPHOCYTE_NETWORK	134	0.5680	2.2356	<0.000	0.0016
WEST_ADRENOCORTICAL_TUMOR_UP	282	0.6240	2.3733	<0.000	0.0017
BOYALT_LIVER_CANCER_SUBCLASS_G3_UP	181	0.6983	2.2360	<0.000	0.0018
CHANG_CORE_SERUM_RESPONSE_UP	198	0.6459	2.2257	<0.000	0.0020
LEE_LIVER_CANCER_SURVIVAL_DN	165	0.7007	2.3235	<0.000	0.0021
REACTOME_CELL_CYCLE	384	0.6294	2.2093	<0.000	0.0025
KARLSSON_TGFB1_TARGETS_UP	118	0.6051	2.1958	<0.000	0.0026

		24	65	1	12
YAO_TEMPORAL_RESPONSE_TO_PROGESTERONE_CLUSTER_10	64	0.6936	2.2155	<0.000	0.0026
		99	64	1	2
OUELLET_OVARIAN_CANCER_INVASIVE_VS_LMP_UP	117	0.6439	2.1650	<0.000	0.0027
		52	03	1	09
RHODES_CANCER_META_SIGNATURE	63	0.7202	2.1963	<0.000	0.0027
		17	39	1	66
STARK_PREFRONTAL_CORTEX_22Q11_DELETION_DN	470	0.6043	2.1734	<0.000	0.0027
		5	99	1	69
NAKAMURA_TUMOR_ZONE_PERIPHERAL_VS_CENTRAL_UP	267	0.5234	2.1681	<0.000	0.0028
		52	83	1	16
BARIS_THYROID_CANCER_UP	23	0.7136	2.1650	<0.000	0.0028
		45	21	1	18
VECCHI_GASTRIC_CANCER_EARLY_UP	384	0.5984	2.1806	<0.000	0.0028
		8	07	1	34
HORIUCHI_WTAP_TARGETS_DN	293	0.6339	2.1821	<0.000	0.0028
		74	56	1	77
REACTOME_SIGNALING_BY_WNT	62	0.7142	2.1655	<0.000	0.0029
		69	42	1	03
GRADE_COLON_AND_RECTAL_CANCER_UP	272	0.6300	2.1971	<0.000	0.0029
		04	55	1	39
REACTOME_REGULATION_OF_MITOTIC_CELL_CYCLE	77	0.7478	2.1683	<0.000	0.0029
		45	98	1	44
REACTOME_CELL_CYCLE_MITOTIC	299	0.6280	2.1606	<0.000	0.0029
		1	21	1	58
LY_AGING_OLD_DN	55	0.7189	2.1507	<0.000	0.0029
		69	7	1	68
REACTOME_HIV_INFECTION	184	0.5899	2.1584	<0.000	0.0029
		09	5	1	82
CUI_GLUCOSE_DEPRIVATION	59	0.6126	2.1466	<0.000	0.0029
		77	06	1	93
LINDGREN_BLADDER_CANCER_CLUSTER_3_UP	304	0.6118	2.1477	<0.000	0.0030

			67	32	1	32
MALONEY_RESPONSE_TO_17AAG_DN	76	0.7130	2.1508	<0.000	0.0030	
		8	72	1	58	
ALONSO_METASTASIS_UP	186	0.5824	2.1575	<0.000	0.0030	
		41	69	1	69	
CAFFAREL_RESPONSE_TO_THC_DN	29	0.7659	2.1511	<0.000	0.0031	
		34		1	54	
REACTOME_REGULATION_OF_MRNA_STABILITY_BY_PROTEINS_THAT_BIND_AU_RICH_ELEMENTS	81	0.6583	2.1515	0.0020	0.0032	
		66	19	41	55	
BENPORATH_PROLIFERATION	136	0.7353	2.1531	<0.000	0.0032	
		52	91	1	64	
REACTOME_APC_C_CDH1_MEDIATED_DEGRADATION_OF_CDC20_AND_OTHER_APC_C_CDH1_TARGETED_PROTEINS_IN_LATE_MITOSIS_EARLY_G1	64	0.7512	2.1371	0.0020	0.0033	
		65		41	16	
MORI_LARGE_PRE_BII_LYMPHOCYTE_UP	84	0.7499	2.1372	<0.000	0.0034	
		99	03	1	05	
GARY_CD5_TARGETS_DN	414	0.6110	2.1341	<0.000	0.0034	
		16	17	1	63	
HU_ANGIOGENESIS_DN	35	0.7314	2.1333	<0.000	0.0034	
		04	88	1	66	
REACTOME_ACTIVATION_OF_NF_KAPPAB_IN_B_CELLS	61	0.6722	2.1235	0.0019	0.0035	
		29	45	92	22	
BLUM_RESPONSE_TO_SALIRASIB_DN	335	0.5825	2.1236	<0.000	0.0035	
		35	08	1	97	
REACTOME_AUTODEGRADATION_OF_CDH1_BY_CDH1_APC_C	56	0.7660	2.1249	<0.000	0.0036	
		16	62	1	4	
WANG_RESPONSE_TO_GSK3_INHIBITOR_SB216763_DN	332	0.5614	2.1239	<0.000	0.0036	
		21	75	1	57	
WONG_EMBRYONIC_STEM_CELL_CORE	328	0.6972	2.1271	<0.000	0.0036	
		58	94	1	96	
REACTOME_APC_C_CDC20_MEDIATED_DEGRADATION_OF_MITOTIC_PROTEINS	65	0.7552	2.1288	0.0020	0.0037	
		11	87	41	14	
SCHLOSSER_MYC_TARGETS_REPRESSED_BY_SERUM	152	0.6964	2.1253	<0.000	0.0037	

		08	85	1	23
REACTOME_MITOTIC_G1_G1_S_PHASES	130	0.6892	2.1285	0.0020	0.0037
		45	44	16	46
SESTO_RESPONSE_TO_UV_C0	105	0.5843	2.1141	<0.000	0.0039
		36	59	1	24
SHAFFER_IRF4_TARGETS_IN_ACTIVATED_B_LYMPHOCYTE	76	0.6004	2.1135	0.0019	0.0039
		64	73	84	29
DITTMER_PTHLH_TARGETS_UP	110	0.5337	2.1147	<0.000	0.0039
		07	9	1	41
REACTOME_HOST_INTERACTIONS_OF_HIV_FACTORS	117	0.6038	2.1124	0.0039	0.0039
		94	7	92	68
REACTOME_CYCLIN_E_ASSOCIATED_EVENTS_DURING_G1_S_TRANSITION_	62	0.7504	2.1156	<0.000	0.0040
		4	05	1	21
SHEDDEN_LUNG_CANCER_POOR_SURVIVAL_A6	426	0.6366	2.1069	<0.000	0.0042
		68	05	1	72
RUIZ_TNC_TARGETS_DN	136	0.6282	2.1031	<0.000	0.0046
		49	1	1	41
REACTOME_CELL_CYCLE_CHECKPOINTS	111	0.7141	2.1001	0.0020	0.0046
		72	5	37	76
RAMALHO_STEMNESS_UP	196	0.5814	2.1007	<0.000	0.0047
		86	38	1	2
REACTOME_DOWNSTREAM_SIGNALING_EVENTS_OF_B_CELL_RECEPTOR_BCR	92	0.5668	2.0962	0.0041	0.0047
		38	36	07	6
MOREAUX_MULTIPLE_MYELOMA_BY_TACI_DN	154	0.6368	2.0949	<0.000	0.0047
		46	92	1	65
MORI_MATURE_B_LYMPHOCYTE_DN	71	0.5876	2.0964	<0.000	0.0048
		15	18	1	16
YAO_TEMPORAL_RESPONSE_TO_PROGESTERONE_CLUSTER_17	170	0.6794	2.0969	0.0021	0.0048
		58	8	1	99
SANA_RESPONSE_TO_IFNG_DN	81	0.6166	2.0889	<0.000	0.0051
		21	19	1	52
MEINHOLD_OVARIAN_CANCER_LOW_GRADE_DN	20	0.7828	2.0895	<0.000	0.0051

			43	73	1	56
REACTOME_MITOTIC_M_M_G1_PHASES	160	0.6877	2.0840	<0.000	0.0052	
		35	1	1	41	
CHIANG_LIVER_CANCER_SUBCLASS_PROLIFERATION_UP	164	0.5707	2.0869	0.0018	0.0052	
		53	67	48	85	
REACTOME_DNA_REPLICATION	180	0.6892	2.0863	<0.000	0.0052	
		62	03	1	87	
GRAHAM_CML_DIVIDING_VS_NORMAL QUIESCENT_UP	176	0.6630	2.0825	<0.000	0.0053	
		97	55	1	01	
HOLLEMAN_ASPARAGINASE_RESISTANCE_ALL_DN	22	0.7660	2.0840	<0.000	0.0053	
		79	2	1	19	
OLSSON_E2F3_TARGETS_DN	45	0.6177	2.0845	<0.000	0.0053	
		24	62	1	66	
FOURNIER_ACINAR_DEVELOPMENT_LATE_2	265	0.6024	2.0795	<0.000	0.0055	
		08	96	1	97	
REACTOME_APOPTOSIS	141	0.5207	2.0750	<0.000	0.0056	
		86	1	1	33	
REACTOME_REGULATION_OF_APOPTOSIS	56	0.6839	2.0778	0.0041	0.0056	
		59	1	49	54	
PAL_PRMT5_TARGETS_UP	195	0.5331	2.0753	0.0020	0.0056	
		25	76	12	87	
REACTOME_S_PHASE	106	0.7213	2.0756	0.0020	0.0057	
		56	82	37	25	
BIOCARTA_PROTEASOME_PATHWAY	28	0.8488	2.0778	<0.000	0.0057	
		03	53	1	34	
GARCIA_TARGETS_OF_FLI1_AND_DAX1_DN	162	0.5706	2.0633	<0.000	0.0058	
		94	92	1	22	
CAFFAREL_RESPONSE_TO_THC_24HR_5_DN	55	0.6149	2.0622	<0.000	0.0058	
		52	24	1	39	
UDAYAKUMAR_MED1_TARGETS_UP	129	0.5340	2.0642	<0.000	0.0058	
		9	01	1	61	
SCHLOSSER_MYC_TARGETS_AND_SERUM_RESPONSE_DN	45	0.7209	2.0613	<0.000	0.0058	

			78	38	1	81
WANG_TUMOR_INVASIVENESS_UP	362	0.4793	2.0644	<0.000	0.0059	
		47	17	1	21	
REACTOME_CROSS_PRESENTATION_OF_SOLUBLE_EXOGENOUS_ANTIGENS_ENDOSOMES	47	0.7242	2.0682	0.0040	0.0059	
		03	43	82	28	
WINNEPENINCKX_MELANOMA_METASTASIS_UP	151	0.7119	2.0686	<0.000	0.0059	
		04	1	1	84	
YAO_TEMPORAL_RESPONSE_TO_PROGESTERONE_CLUSTER_13	164	0.7016	2.0644	<0.000	0.0059	
		22	29	1	94	
KEGG_PROTEASOME	42	0.7698	2.0650	<0.000	0.0060	
		29	72	1	17	
HOFFMANN_LARGE_TO_SMALL_PRE_BII_LYMPHOCYTE_UP	157	0.6502	2.0700	0.0019	0.0060	
		02	5	38	24	
SCIBETTA_KDM5B_TARGETS_DN	77	0.5732	2.0687	<0.000	0.0060	
		37	2	1	62	
REACTOME_METABOLISM_OF_PROTEINS	414	0.5525	2.0653	<0.000	0.0060	
		98	03	1	92	
REACTOME_G1_S_TRANSITION	106	0.7103	2.0554	0.0040	0.0063	
		94	16	57	86	
GUTIERREZ_MULTIPLE_MYELOMA_UP	29	0.7297	2.0560	<0.000	0.0064	
		11	22	1	19	
YAMAZAKI_TCEB3_TARGETS_DN	201	0.4775	2.0539	<0.000	0.0064	
		71	12	1	91	
REACTOME_SCF SKP2_MEDIATED_DEGRADATION_OF_P27_P21	53	0.7619	2.0502	<0.000	0.0065	
		61	8	1	35	
ROME_INSULIN_TARGETS_IN_MUSCLE_UP	407	0.4965	2.0505	<0.000	0.0065	
		87	54	1	76	
REACTOME_P53_DEPENDENT_G1_DNA_DAMAGE_RESPONSE	53	0.7170	2.0523	0.0020	0.0065	
		89	45	53	93	
GOLDRATH_HOMEOSTATIC_PROLIFERATION	163	0.5386	2.0518	<0.000	0.0066	
		17	26	1	19	
SARRIO_EPITHELIAL_MESENCHYMAL_TRANSITION_UP	170	0.6166	2.0506	<0.000	0.0066	

		01	47	1	23
BOYAULT_LIVER_CANCER_SUBCLASS_G23_UP	49	0.6945	2.0466	<0.000	0.0066
		69	81	1	47
REACTOME_TRANSCRIPTION	187	0.5976	2.0450	<0.000	0.0066
		1	12	1	49
KOBAYASHI_EGFR_SIGNALING_24HR_DN	242	0.6931	2.0456	0.0019	0.0066
		45	29	92	84
BOYAULT_LIVER_CANCER_SUBCLASS_G123_UP	44	0.6758	2.0437	<0.000	0.0066
		67	83	1	88
KEGG_RNA_DEGRADATION	55	0.6270	2.0507	<0.000	0.0066
		28	14	1	95
ELVIDGE_HYPOXIA_DN	136	0.5426	2.0469	0.0020	0.0067
		37	46	7	05
IVANOVA_HEMATOPOIESIS_INTERMEDIATE_PROGENITOR	140	0.5298	2.0482	<0.000	0.0067
		9	28	1	17
WINTER_HYPOXIA_UP	88	0.5877	2.0429	0.0020	0.0067
		9	82	41	38
CONCANNON_APOPTOSIS_BY_EPOXOMICIN_DN	159	0.4774	2.0418	<0.000	0.0067
		01	22	1	63
PROVENZANI_METASTASIS_UP	183	0.4868	2.0471	<0.000	0.0067
		34	18	1	66
BHATTACHARYA_EMBRYONIC_STEM_CELL	86	0.6060	2.0399	<0.000	0.0067
		62	67	1	66
MORI_IMMATURE_B_LYMPHOCYTE_DN	90	0.7192	2.0402	0.0019	0.0067
		18	78	8	91
REACTOME_AUTODEGRADATION_OF_THE_E3_UBIQUITIN_LIGASE_COP1	47	0.7370	2.0391	0.0060	0.0068
		72	97	61	08
BASAKI_YBX1_TARGETS_UP	268	0.5641	2.0371	0.0020	0.0069
		78	55	37	01
SCHUHMACHER_MYC_TARGETS_UP	77	0.6850	2.0331	0.0020	0.0069
		95	07	41	15
REACTOME_CDT1_ASSOCIATION_WITH_THE_CDC6_ORC_ORIGIN_COMPLEX	54	0.7433	2.0332	0.0040	0.0069

			35	69	98	61
MOREAUX_B_LYMPHOCYTE_MATURATION_BY_TACI_DN	66	0.6901	2.0364	<0.000	0.0069	
		55	27	1		61
REACTOME_SYNTHESIS_OF_DNA	90	0.7179	2.0371	0.0060	0.0069	
		51	88	48		65
REACTOME_ORC1_REMOVAL_FROM_CHROMATIN	65	0.7264	2.0360	0.0041	0.0069	
		14	23	67		65
REACTOME_P53_INDEPENDENT_G1_S_DNA_DAMAGE_CHECKPOINT	48	0.7477	2.0337	0.0040	0.0069	
		99	85	82		81
FERRANDO_T_ALL_WITH_MLL_ENL_FUSION_DN	83	0.5713	2.0351	0.0019	0.0070	
		67	33	88		1
WONG_MITOCHONDRIA_GENE_MODULE	216	0.6824	2.0346	0.0042	0.0070	
		82	9	64		1
REACTOME_PERK_REGULATED_GENE_EXPRESSION	26	0.6693	2.0338	0.0019	0.0070	
		76	56	61		42
REACTOME_SCF_BETA_TRCP_MEDIATED_DEGRADATION_OF_EMI1	49	0.7459	2.0283	0.0040	0.0071	
		22	53	73		27
YU_MYC_TARGETS_UP	39	0.8093	2.0287	<0.000	0.0071	
		54	94	1		78
MUELLER_PLURINET	293	0.5980	2.0302	<0.000	0.0071	
		35	95	1		85
REACTOME_REGULATION_OF_ORNITHINE_DECARBOXYLASE_ODC	48	0.7462	2.0291	0.0061	0.0071	
		3	63	98		96
CAIRO_PML_TARGETS_BOUND_BY_MYC_UP	23	0.7005	2.0275	0.0020	0.0072	
		41	2	2		06
KAAB_FAILED_HEART_ATRIUM_DN	136	0.5234	2.0292	0.0040	0.0072	
		81	25	57		5
CHICAS_RB1_TARGETS_LOW_SERUM	84	0.5676	2.0260	<0.000	0.0073	
			4	1		29
REACTOME_ANTIGEN_PROCESSING_UBIQUITINATION_PROTEASOME_DEGRADATION	191	0.4958	2.0234	0.0020	0.0075	
		41	37	12		6
MORI_PRE_BI_LYMPHOCYTE_UP	77	0.6485	2.0189	<0.000	0.0076	

		59	02	1	96
WHITEFORD_PEDIATRIC_CANCER_MARKERS	110	0.6963	2.0220	0.0039	0.0077
		85	35	76	
REACTOME_DESTABILIZATION_OF_MRNA_BY_AUF1_HNRNP_D0	50	0.7301	2.0213	0.0040	0.0077
		71	82	9	1
REACTOME_VIF_MEDIATED_DEGRADATION_OF_APOBEC3G	47	0.7475	2.0190	0.0040	0.0077
		84	15	9	47
ELLWOOD_MYC_TARGETS_DN	38	0.5973	2.0193	0.0019	0.0077
		04	29	72	96
MOOTHA_HUMAN_MITODB_6_2002	413	0.5945	2.0194	0.0042	0.0078
		84	72	46	43
REACTOME_ASSEMBLY_OF_THE_PRE_REPLICATIVE_COMPLEX	63	0.7331	2.0143	0.0062	0.0081
		28	63	5	3
DANG_MYC_TARGETS_UP	138	0.6476	2.0125	<0.000	0.0082
		78	99	1	44
MOHANKUMAR_HOXA1_TARGETS_UP	384	0.4529	2.0078	<0.000	0.0085
		9	21	1	75
ZAMORA_NOS2_TARGETS_UP	63	0.6129	2.0062	<0.000	0.0086
		06	2	1	99
MENSSEN_MYC_TARGETS	51	0.6863	2.0038	<0.000	0.0087
		76	8	1	76
MANALO_HYPOXIA_DN	271	0.6614	2.0031	0.0041	0.0087
		13	2	15	76
KEGG_PYRIMIDINE_METABOLISM	95	0.5620	2.0051	<0.000	0.0087
		94	24	1	84
WEST_ADRENOCORTICAL_TUMOR_MARKERS_UP	21	0.7115	2.0040	<0.000	0.0088
		54	3	1	28
KIM_MYC_AMPLIFICATION_TARGETS_UP	186	0.5023	2.0013	<0.000	0.0089
		72	77	1	4
REACTOME_DEADENYLATION_DEPENDENT_MRNA_DECAY	42	0.6240	2.0001	<0.000	0.0090
		76	73	1	76
SASAKI_ADULT_T_CELL_LEUKEMIA	168	0.5032	1.9987	<0.000	0.0091

			24	95	1	34
REACTOME_METABOLISM_OF_NUCLEOTIDES	69	0.5783	1.9950	<0.000	0.0093	
		58	1	1	55	
BLALOCK_ALZHEIMERS_DISEASE_INCIPIENT_DN	160	0.4658	1.9956	<0.000	0.0093	
		76	35	1	57	
REACTOME_METABOLISM_OF_RNA	252	0.6298	1.9957	0.0042	0.0094	
		7	42	11	17	
APPIERTO_RESPONSE_TO_FENRETINIDE_DN	50	0.5683	1.9929	0.0020	0.0095	
		75	79	66	63	
HU_GENOTOXIC_DAMAGE_4HR	35	0.6509	1.9922	0.0041	0.0095	
		31	32	15	72	
PELLICCIOTTA_HDAC_IN_ANTIGEN_PRESENTATION_UP	62	0.6555	1.9912	0.0020	0.0095	
		32	73	41	83	
SAKAI_TUMOR_INFILTRATING_MONOCYTES_DN	78	0.6088	1.9916	0.0019	0.0095	
		74	92	57	91	
VANTVEER_BREAST_CANCER_METASTASIS_DN	111	0.6029	1.9903	<0.000	0.0096	
		6	11	1	62	
WILCOX_RESPONSE_TO_PROGESTERONE_UP	140	0.5642	1.9890	<0.000	0.0097	
		48	76	1	11	
MOOTHA_PGC	400	0.5071	1.9876	0.0041	0.0098	
		9	53	24	16	
REACTOME_CLASS_I_MHC_MEDIATED_ANTIGEN_PROCESSING_PRESENTATION	228	0.4751	1.9842	<0.000	0.0101	
		94	83	1	88	
BURTON_ADIPOGENESIS_5	114	0.5986	1.9789	0.0062	0.0108	
		54	54	63	03	
RHODES_UNDIFFERENTIATED_CANCER	67	0.7431	1.9795	0.0020	0.0108	
		32	29	62	09	
CAFFAREL_RESPONSE_TO_THC_24HR_5_UP	30	0.6527	1.9795	0.0040	0.0108	
		32	87	16	69	
HEDENFALK_BREAST_CANCER_HEREDITARY_VS_SPORADIC	46	0.5600	1.9769	<0.000	0.0109	
		09	86	1	64	
FUJII_YBX1_TARGETS_DN	193	0.6009	1.9755	0.0038	0.0110	

		49	13	99	59
ZHANG_RESPONSE_TO_CANTHARIDIN_DN	67	0.6717	1.9694	<0.000	0.0119
		93	64	1	87
SEIDEN_MET_SIGNALING	18	0.8040	1.9620	<0.000	0.0120
		33	17	1	07
GAJATE_RESPONSE_TO_TRABECTEDIN_DN	18	0.6621	1.9621	<0.000	0.0120
		37	14	1	45
LEE_EARLY_T_LYMPHOCYTE_UP	96	0.6504	1.9686	0.0020	0.0120
		73	45	37	73
YAO_TEMPORAL_RESPONSE_TO_PROGESTERONE_CLUSTER_11	95	0.5511	1.9621	0.0020	0.0121
		54	71	12	03
HU_GENOTOXIN_ACTION_DIRECT_VS_INDIRECT_24HR	51	0.5268	1.9641	<0.000	0.0121
		78	72	1	37
BYSTRYKH_HEMATOPOIESIS_STEM_CELL_AND_BRAIN_QTL_CIS	57	0.5269	1.9623	0.0021	0.0121
		24	84	69	41
ELVIDGE_HIF1A_TARGETS_UP	63	0.5458	1.9627	0.0020	0.0121
		9	5	16	46
MOOTHA_MITOCHONDRIA	426	0.5808	1.9669	0.0043	0.0121
		08	18	01	53
REACTOME_ASPARAGINE_N_LINKED_GLYCOSYLATION	80	0.5440	1.9675	<0.000	0.0121
		85	55	1	63
YAO_TEMPORAL_RESPONSE_TO_PROGESTERONE_CLUSTER_14	134	0.5626	1.9629	<0.000	0.0121
		53	78	1	69
REACTOME_CDK_MEDIATED_PHOSPHORYLATION_AND_REMOVAL_OF_CDC6	46	0.7362	1.9643	0.0082	0.0121
		17	76	3	7
ODONNELL_TFRC_TARGETS_DN	120	0.6120	1.9659	0.0059	0.0121
		59	91	52	85
GOTZMANN_EPITHELIAL_TO_MESENCHYMAL_TRANSITION_DN	198	0.4658	1.9631	<0.000	0.0122
		09	17	1	13
REACTOME_TRNA_AMINOACYLATION	42	0.6982	1.9634	<0.000	0.0122
		1	79	1	17
CHOI_ATL_STAGE_PREDICTOR	38	0.6158	1.9649	0.0038	0.0122

		15	95	17	33
OUELLET_CULTURED_OVARIAN_CANCER_INVASIVE_VS_LMP_UP	65	0.5387	1.9644	<0.000	0.0122
		69	09	1	43
HEDENFALK_BREAST_CANCER_BRCA1_VS_BRCA2	156	0.4688	1.9591	<0.000	0.0124
		7	79	1	05
REACTOME_M_G1_TRANSITION	78	0.7085	1.9582	0.0062	0.0124
		57	69	11	66
SHIPP_DLBCL_VS_FOLLICULAR_LYMPHOMA_UP	44	0.7104	1.9551	0.0040	0.0128
		74	14	9	43
REACTOME_MITOTIC_PROMETAPHASE	78	0.6660	1.9548	0.0019	0.0128
		76	65	88	51
SOTIRIOU_BREAST_CANCER_GRADE_1_VS_3_UP	141	0.7582	1.9554	0.0020	0.0128
		72	09	16	6
WHITFIELD_CELL_CYCLE_G2_M	194	0.4778	1.9543	0.0019	0.0128
		55	39	53	91
GREENBAUM_E2A_TARGETS_UP	32	0.7446	1.9555	<0.000	0.0129
		05	43	1	04
HONMA_DOCETAXEL_RESISTANCE	30	0.7223	1.9538	<0.000	0.0129
		34	2	1	12
ROSTY_CERVICAL_CANCER_PROLIFERATION_CLUSTER	133	0.7390	1.9499	0.0079	0.0132
		69	99	21	76
DEN_INTERACT_WITH_LCA5	25	0.6729	1.9513	0.0020	0.0132
		56	31	16	94
REACTOME_ANTIGEN_PROCESSING_CROSS_PRESENTATION	72	0.6279	1.9491	0.0082	0.0133
		35	84	14	03
DANG_REGULATED_BY_MYC_UP	71	0.5750	1.9509	0.0041	0.0133
		79	62	41	04
REACTOME_G1_PHASE	35	0.6082	1.9501	<0.000	0.0133
		04	57	1	35
REACTOME_SYNTHESIS_AND_INTERCONVERSION_OF_NUCLEOTIDE_DI_AND_TRIPHOSPHATES	18	0.7253	1.9463	0.0020	0.0137
		51	77	75	93
NAKAMURA_CANCER_MICROENVIRONMENT_DN	43	0.6833	1.9454	0.0039	0.0138

		99	81	68	52
MISSIAGLIA_REGULATED_BY_METHYLATION_DN	115	0.6740	1.9436	0.0020	0.0140
		56	69	24	07
KEGG_CELL_CYCLE	124	0.5604	1.9441	0.0040	0.0140
		41	24	49	13
REACTOME_LATE_PHASE_OF_HIV_LIFE_CYCLE	92	0.5720	1.9395	0.0020	0.0147
		5	26	28	72
LE_EGR2_TARGETS_UP	104	0.5786	1.9389	0.0039	0.0147
		57	54	6	97
DAZARD_RESPONSE_TO_UV_SCC_UP	111	0.6118	1.9376	<0.000	0.0149
		07	32	1	73
ZHOU_CELL_CYCLE_GENES_IN_IR_RESPONSE_24HR	119	0.6850	1.9370	0.0059	0.015
		97	31	52	
BIDUS_METASTASIS_UP	203	0.6296	1.9367	0.0039	0.0150
		5	6	68	12
JUBAN_TARGETS_OF_SPI1_AND_FLI1_DN	84	0.5071	1.9354	<0.000	0.0151
		28	73	1	65
PID_PLK1_PATHWAY	43	0.6460	1.9339	0.0019	0.0153
		85	2	61	69
MOLENAAR_TARGETS_OF_CCND1_AND_CDK4_DN	51	0.7155	1.9342	<0.000	0.0153
		45	41	1	92
REACTOME_HIV_LIFE_CYCLE	105	0.5641	1.9332	<0.000	0.0154
		78	21	1	17
YU_BAP1_TARGETS	29	0.6879	1.9308	0.0020	0.0157
		2	48	62	6
BENPORATH_ES_1	351	0.4955	1.9301	<0.000	0.0158
		48	9	1	15
SHEPARD_CRUSH_AND_BURN_MUTANT_UP	185	0.4720	1.9295	<0.000	0.0158
		57	26	1	8
PRAMOONJAGO_SOX4_TARGETS_DN	50	0.6012	1.9284	0.0020	0.0160
		12	66	75	54
KEGG_HUNTINGTONS_DISEASE	168	0.5485	1.9248	0.0083	0.0161

		4	57	68	28
PELLICCIOTTA_HDAC_IN_ANTIGEN_PRESENTATION_DN	49	0.6579	1.9277	0.0058	0.0161
		77	98	94	28
LANDIS_ERBB2_BREAST_TUMORS_324_UP	139	0.4894	1.9250	0.0019	0.0161
		59	03	65	85
ZUCCHI_METASTASIS_UP	38	0.5719	1.9267	0.0019	0.0161
		76	55	76	96
MULLIGAN_NTF3_SIGNALING_VIA_INSR_AND_IGF1R_UP	23	0.6420	1.9252	0.0058	0.0162
		71	04	03	16
ZHANG_BREAST_CANCER_PROGENITORS_UP	399	0.5846	1.9261	0.0039	0.0162
		75	2	37	39
CHANG_CYCLING_GENES	138	0.6644	1.9253	0.0098	0.0162
		15	14	23	75
REACTOME_METABOLISM_OF_MRNA	208	0.6166	1.9226	0.0104	0.0164
		06	27	6	09
REACTOME_METABOLISM_OF_AMINO_ACIDS_AND_DERIVATIVES	186	0.4978	1.9220	0.0020	0.0164
		57	98	79	39
WANG_CLIM2_TARGETS_DN	176	0.5160	1.9227	<0.000	0.0164
		05	86	1	49
MARKEY_RB1_ACUTE_LOF_UP	223	0.5642	1.9213	0.0040	0.0164
		59	45	24	84
KANG_DOXORUBICIN_RESISTANCE_UP	50	0.7852	1.9199	0.0019	0.0166
		66	47	49	94
WAMUNYOKOLI_OVARIAN_CANCER_GRADES_1_2_UP	134	0.5858	1.9186	0.0157	0.0168
		58	78	48	
REACTOME_CHROMOSOME_MAINTENANCE	110	0.6578	1.9186	0.0019	0.0168
		94	88	53	77
KEGG_ONE_CARBON_POOL_BY_FOLATE	17	0.7174	1.9169	0.0020	0.0169
		29	35	41	98
BIOCARTA_MPR_PATHWAY	33	0.5830	1.9171	<0.000	0.0170
		2	74	1	17
FURUKAWA_DUSP6_TARGETS_PCI35_DN	67	0.6184	1.9158	0.0019	0.0171

			39	13	84	39
REACTOME_APC_CDC20_MEDIATED_DEGRADATION_OF_NEK2A	21	0.7563	1.9141	<0.000	0.0174	
		16	45	1		75
MELLMAN_TUT1_TARGETS_UP	18	0.6420	1.9115	0.0041	0.0179	
		19	05	41		82
ODONNELL_TARGETS_OF_MYC_AND_TFRC_DN	43	0.7468	1.9107	<0.000	0.0180	
		81	81	1		48
PID_MYC_ACTIV_PATHWAY	78	0.5523	1.9098	0.0019	0.0180	
		4	27	53		83
HSIAO_HOUSEKEEPING_GENES	384	0.5485	1.9100	0.0122	0.0181	
		1	66	45		19
MARTINEZ_RESPONSE_TO_TRABECTEDIN_UP	67	0.5498	1.9093	0.0021	0.0181	
		75	69	05		25
HESS_TARGETS_OF_HOXA9_AND_MEIS1_UP	63	0.5566	1.9060	0.0042	0.0186	
		47	96	11		99
REACTOME_ACTIVATION_OF_GENES_BY_ATF4	23	0.6452	1.9026	0.0059	0.0193	
		25	47	76		94
REACTOME_RNA_POL_I_RNA_POL_III_AND_MITOCHONDRIAL_TRANSCRIPTION	109	0.6394	1.9020	0.0295	0.0194	
		92	4	86		17
REACTOME_INHIBITION_OF_THE_PROTEOLYTIC_ACTIVITY_OF_APC_C_REQUIRED_FOR_THE_ONSET_OF_ANAPHASE_BY_MITOTIC_SPINDLE_CHECKPOINT_COMPONENTS	18	0.7532	1.9006	<0.000	0.0196	
		97	52	1		72
SONG_TARGETS_OF_IE86_CMV_PROTEIN	58	0.7125	1.8991	0.0060	0.0199	
		31	93	98		45
BURTON_ADIPOGENESIS_3	100	0.6421	1.8960	0.0155	0.0201	
		53	54	04		36
GRAHAM_NORMAL QUIESCENT_VS_NORMAL_DIVIDING_DN	85	0.7212	1.8971	0.0080	0.0201	
		76	68	65		37
GRADE_METASTASIS_DN	42	0.6560	1.8957	0.0099	0.0201	
		26	28	8		48
JIANG_HYPOXIA_VIA_VHL	33	0.5872	1.8963	<0.000	0.0201	
		76	54	1		55
DAIRKEE_CANCER_PRONE_RESPONSE_BPA	49	0.5443	1.8972	0.0021	0.0201	

		21	54	28	99
CHUNG_BLISTER_CYTOTOXICITY_UP	123	0.5033	1.8964	0.0120	0.0202
		64	45	24	26
GAVIN_FOXP3_TARGETS_CLUSTER_P6	88	0.5733	1.8973	0.0118	0.0202
		89	59	58	66
TIEN_INTESTINE_PROBIOTICS_24HR_DN	210	0.4886	1.8935	0.0077	0.0204
		25	37	82	1
KEGG_AMINOACYL_TRNA_BIOSYNTHESIS	41	0.6633	1.8936	<0.000	0.0204
		49	83	1	34
STONER_ESOPHAGEAL_CARCIANOGENESIS_UP	36	0.5606	1.8938	<0.000	0.0204
		43	74	1	81
REACTOME_TELOMERE_MAINTENANCE	71	0.7246	1.8905	0.0078	0.0207
		26	31	59	23
ZHAN_V2_LATE_DIFFERENTIATION_GENES	42	0.5709	1.8915	0.0020	0.0207
		03	39	33	61
REACTOME_RNA_POL_II_PRE_TRANSCRIPTION_EVENTS	51	0.5718	1.8909	0.0060	0.0207
		36	4	36	63
THILLAINADESAN_ZNF217_TARGETS_UP	42	0.5799	1.8906	0.0041	0.0207
		79	57	07	68
CHNG_MULTIPLE_MYELOMA_HYPERPLOID_DN	28	0.6261	1.8870	0.0059	0.0214
		96	81	17	25
REACTOME_METABOLISM_OF_NON_CODING_RNA	47	0.6628	1.8862	0.0081	0.0214
		05	68	14	26
ZHANG_TLX_TARGETS_60HR_DN	263	0.6176	1.8858	0.0120	0.0214
		01	95	48	52
CROONQUIST_NRAS_SIGNALING_DN	71	0.7253	1.8863	0.0120	0.0215
		23	38	48	05
REACTOME_PHOSPHORYLATION_OF_THE_APC_C	17	0.7435	1.8826	<0.000	0.0219
		28	63	1	38
REACTOME_FORMATION_OF_TRANSCRIPTION_COUPLED_NER_TC_NER_REPAIR_COMPLEX	28	0.6160	1.8836	0.0063	0.0219
		97	27	29	41
FISCHER_G2_M_CELL_CYCLE	220	0.5764	1.8832	0.0138	0.0219

			78	35	89	71
REACTOME_ER_PHAGOSOME_PATHWAY	58	0.6884	1.8828	0.0104	0.0219	
		65	4	6	91	
REACTOME_RNA_POL_II_TRANSCRIPTION_PRE_INITIATION_AND_PROMOTER_OPENING	39	0.6079	1.8806	0.0019	0.0221	
		15	82	92	5	
REACTOME_MRNA_SPLICING_MINOR_PATHWAY	40	0.6747	1.8807	0.0103	0.0222	
		78	55	95	13	
REACTOME_CONVERSION_FROM_APC_C_CDC20_TO_APC_C_CDH1_IN_LATE_ANAPHASE	16	0.7059	1.8808	0.002	0.0222	
		24	06		97	
SESTO_RESPONSE_TO_UV_C7	65	0.5471	1.8787	0.0059	0.0224	
		51	28	41	99	
LANDIS_BREAST_CANCER_PROGRESSION_UP	40	0.5905	1.8771	0.0019	0.0227	
		33	69	96	89	
REACTOME_NUCLEOTIDE_EXCISION_REPAIR	48	0.5976	1.8753	0.0060	0.0231	
		07	45	85	22	
SUNG_METASTASIS_STROMA_DN	49	0.5837	1.8755	0.0078	0.0231	
		17	28	13	57	
SCHLOSSER_MYC_TARGETS_AND_SERUM_RESPONSE_UP	46	0.6247	1.8711	0.0062	0.0234	
		71	3	89	36	
ZHOU_TNF_SIGNALING_4HR	52	0.5239	1.8713	0.0097	0.0234	
		42	57	85	52	
PARK_HSC_AND_MULTIPOTENT_PROGENITORS	49	0.5099	1.8728	0.0020	0.0235	
		23	91	04		
CHIARADONNA_NEOPLASTIC_TRANSFORMATION_KRAS_UP	121	0.4724	1.8721	0.0019	0.0235	
		19	82	31	1	
PEART_HDAC_PROLIFERATION_CLUSTER_DN	73	0.5166	1.8714	0.0019	0.0235	
		2	08	8	22	
SAKAI_CHRONIC_HEPATITIS_VS_LIVER_CANCER_UP	79	0.6123	1.8730	<0.000	0.0235	
		88	37	1	44	
REACTOME_APC_C_CDC20_MEDIATED_DEGRADATION_OF_CYCLIN_B	19	0.7390	1.8722	<0.000	0.0235	
		86	19	1	89	
REACTOME_TRANSCRIPTION_COUPLED_NER_TC_NER	43	0.6172	1.8714	0.0041	0.0236	

		36	98	15	01
REACTOME_PROCESSING_OF_CAPPED_INTRONLESS_PRE_MRNA	23	0.6895	1.8685	0.0059	0.0240
		46	57	64	35
REACTOME_DNA_REPAIR	101	0.5666	1.8663	0.0042	0.0241
		54	02	46	99
WHITFIELD_CELL_CYCLE_M_G1	139	0.4787	1.8670	0.0019	0.0242
		62	97	34	33
KIM_WT1_TARGETS_DN	426	0.4519	1.8673	0.0019	0.0242
		19	75	42	56
BRACHAT_RESPONSE_TO_CAMPTOTHECIN_DN	43	0.5660	1.8663	0.0039	0.0242
		5	46	76	84
COLLER_MYC_TARGETS_UP	25	0.7095	1.8654	0.0062	0.0242
		67	1	24	91
VIETOR_IFRD1_TARGETS	21	0.6384	1.8666	0.0039	0.0242
		51	67	53	94
REACTOME_PROTEIN_FOLDING	51	0.5299	1.8647	0.0038	0.0243
		93	29	61	04
WANG_TARGETS_OF_MLL_CBP_FUSION_DN	42	0.5334	1.8648	0.0040	0.0243
		49	43	9	51
CROONQUIST_IL6_DEPRIVATION_DN	96	0.6977	1.8632	0.0121	0.0244
		49	99	21	64
WHITFIELD_CELL_CYCLE_LITERATURE	44	0.7424	1.8634	0.0180	0.0245
		58		72	33
REACTOME_PREFOLDIN_MEDIATED_TRANSFER_OF_SUBSTRATE_TO_CCT_TRIC	27	0.6639	1.8625	0.0060	0.0246
		31	08	24	18
HU_GENOTOXIC_DAMAGE_24HR	32	0.6156	1.8621	0.0101	0.0246
		58	42	01	38
KAYO_AGING_MUSCLE_DN	117	0.4482	1.8601	<0.000	0.0250
		68	02	1	57
POMEROY_MEDULLOBLASTOMA_PROGNOSIS_DN	43	0.6394	1.8569	0.0040	0.0250
		52	3	57	58
ALCALA_APOPTOSIS	85	0.5084	1.8581	0.0101	0.0250

		04	29	42	78
ZHOU_CELL_CYCLE_GENES_IN_IR_RESPONSE_6HR	80	0.7269	1.8572	0.0061	0.0250
		25	22	35	79
PID_RAC1_PATHWAY	54	0.4853	1.8577	0.0057	0.0250
		11	98	03	85
BHATI_G2M_ARREST_BY_2METHOXYESTRADIOL_UP	108	0.4884	1.8584	<0.000	0.0250
		52	75	1	92
BILANGES_RAPAMYCIN_SENSITIVE_VIA_TSC1_AND_TSC2	71	0.6133	1.8574	0.0060	0.0250
		46	5	36	93
JIANG_AGING_HYPOTHALAMUS_UP	46	0.6046	1.8585	0.0042	0.0251
		01	45	02	57
REACTOME_CYCLIN_A_B1_ASSOCIATED_EVENTS_DURING_G2_M_TRANSITION	15	0.7906	1.8585	0.002	0.0252
		61	72		45
RAHMAN_TP53_TARGETS_PHOSPHORYLATED	21	0.7472	1.8589	<0.000	0.0252
		18	5	1	95
BURTON_ADIPOGENESIS_PEAK_AT_24HR	42	0.6925	1.8586	0.0042	0.0253
		97	02	02	23
JAZAERI_BREAST_CANCER_BRCA1_VS_BRCA2_UP	47	0.5215	1.8542	0.0020	0.0256
		73	2	16	08
REACTOME_CYTOSOLIC_TRNA_AMINOACYLATION	24	0.7239	1.8535	0.0039	0.0256
		65	47	45	87
GAZDA_DIAMOND_BLACKFAN_ANEMIA_PROGENITOR_DN	62	0.5558	1.8529	0.0040	0.0257
		98	53	08	62
TOOKER_GEMCITABINE_RESISTANCE_DN	119	0.4815	1.8517	0.0037	0.0258
		23	21	81	69
DUTERTRE_ESTRADIOL_RESPONSE_24HR_UP	309	0.5830	1.8519	0.0320	0.0259
		86	05	64	01
MATTIOLI_MGUS_VS_PCL	92	0.5301	1.8520	0.0081	0.0259
		57	63	8	32
IVANOVA_HEMATOPOIESIS_EARLY_PROGENITOR	481	0.3919	1.8508	<0.000	0.0259
		43	22	1	82
REACTOME_MITOCHONDRIAL_PROTEIN_IMPORT	48	0.6987	1.8510	0.0086	0.0260

		03	95	39	01
KEGG_DNA_REPLICATION	36	0.7221	1.8464	0.0059	0.0269
		6	46	41	9
YOSHIMURA_MAPK8_TARGETS_DN	347	0.3967	1.8459	0.0019	0.0270
		99	66	34	29
KAUFFMANN_MELANOMA_RELAPSE_UP	59	0.7403	1.8438	0.0040	0.0275
		9	58	82	08
MMS_MOUSE_LYMPH_HIGH_4HRS_UP	31	0.6539	1.8438	0.0019	0.0275
		19	65	92	92
KEGG_OXIDATIVE_PHOSPHORYLATION	114	0.6504	1.8432	0.0151	0.0276
		61	57	19	48
VANOEVELEN_MYOGENESIS_SIN3A_TARGETS	208	0.3987	1.8403	<0.000	0.0279
		23	39	1	32
YAO_TEMPORAL_RESPONSE_TO_PROGESTERONE_CLUSTER_7	72	0.4816	1.8415	0.0019	0.0279
		44	11	57	33
WIERENGA_PML_INTERACTOME	40	0.5255	1.8416	0.0019	0.0279
		91	88	72	61
KEGG_NUCLEOTIDE_EXCISION_REPAIR	44	0.5933	1.8404	0.0040	0.0279
		38	92	08	69
BAE_BRCA1_TARGETS_UP	70	0.4899	1.8410	0.0097	0.0279
		29	58	85	92
TAKAO_RESPONSE_TO_UVB_RADIATION_DN	95	0.4591	1.8406	0.0019	0.0280
		35	84	38	12
REACTOME_MITOCHONDRIAL_TRNA_AMINOACYLATION	21	0.7108	1.8418	<0.000	0.0280
		15	15	1	18
ZHU_CMV_24_HR_UP	93	0.5201	1.8371	0.0099	0.0282
		55	24	21	94
KEGG_PARKINSONS_DISEASE	109	0.6301	1.8371	0.0149	0.0283
		17	78	25	68
KEGG_PURINE_METABOLISM	150	0.4223	1.8373	<0.000	0.0284
		78	36	1	16
TIEN_INTESTINE_PROBIOTICS_6HR_DN	158	0.4490	1.8379	<0.000	0.0284

		92	04	1	32
AMUNDSON_GAMMA_RADIATION_RESPONSE	39	0.7337	1.8375	0.0081	0.0284
		38	12	47	65
IRITANI_MAD1_TARGETS_DN	46	0.6419	1.8379	0.01	0.0285
		06	49		09
KAMMINGA_EZH2_TARGETS	40	0.7609	1.8353	0.0038	0.0285
		08	1	76	5
REACTOME_BIOSYNTHESIS_OF_THE_N_GLYCAN_PRECURSOR_DOLICHOL_LIPID_LINKED_OLIGOSACCHARIDE_LLO_AND_TRANS	28	0.6273	1.8355	0.0040	0.0285
FER_TO_A_NASCENT_PROTEIN		45		49	95
WU_APOPTOSIS_BY_CDKN1A_VIA_TP53	53	0.6739	1.8348	0.0080	0.0285
		88	19	48	97
SMITH_LIVER_CANCER	42	0.5798	1.8356	0.0101	0.0286
		56	66	21	42
WELCSH_BRCA1_TARGETS_UP	192	0.4882	1.8343	0.0059	0.0286
		33	1	76	5
BLUM_RESPONSE_TO_SALIRASIB_UP	236	0.4402	1.8338	0.0100	0.0286
		71	89	2	93
REN_BOUND_BY_E2F	60	0.7136	1.8333	0.0081	0.0286
		38	19	3	97
REACTOME_PURINE_METABOLISM	32	0.5805	1.8334	0.0040	0.0287
		84	43	57	56
KEGG_OOCYTE_MEIOSIS	106	0.4453	1.8311	0.0018	0.0291
		33	26	73	23
NGO_MALIGNANT_GLIOMA_1P_LOH	15	0.7515	1.8304	0.0020	0.0291
		39	71	66	32
ZHAN_VARIABLE_EARLY_DIFFERENTIATION_GENES_DN	30	0.5751	1.8313	0.0020	0.0291
		53	27	79	54
BIOCARTA_CHREBP2_PATHWAY	39	0.5228	1.8306	0.0040	0.0291
		88	44	24	62
HOLLEMAN_PREDNISOLONE_RESISTANCE_B_ALL_UP	22	0.6239	1.8298	0.0079	0.0292
		92	15	68	35
REACTOME_TCA_CYCLE_AND_RESPIRATORY_ELECTRON_TRANSPORT	115	0.6552	1.8272	0.0173	0.0300

		46	3	91	14
MORI_EMU_MYC_LYMPHOMA_BY_ONSET_TIME_UP	99	0.5056	1.8256	0.0121	0.0300
		9	06	7	75
FARMER_BREAST_CANCER_CLUSTER_2	32	0.8048	1.8259	0.004	0.0300
		01	36		86
DAIRKEE_CANCER_PRONE_RESPONSE_BPA_E2	112	0.4567	1.8262	0.0039	0.0300
		36	03	84	94
BIOCARTA_BCELLSURVIVAL_PATHWAY	16	0.5917	1.8265	0.0058	0.0301
		53	1	25	09
SEIDEN_ONCOGENESIS_BY_MET	84	0.6710	1.8250	0.0096	0.0301
		88	49	15	18
TONKS_TARGETS_OF_RUNX1_RUNX1T1_FUSION_MONOCYTE_UP	195	0.4267	1.8239	<0.000	0.0302
		43	31	1	34
SMITH_TERT_TARGETS_UP	141	0.4523	1.8243	0.0137	0.0302
		91	42	25	48
REACTOME_ENOS_ACTIVATION_AND_REGULATION	19	0.6229	1.8216	0.0060	0.0308
		45	13	12	61
REACTOME_TRANSLATION	144	0.6596	1.8203	0.0258	0.0311
		47	84	96	35
AFFAR_YY1_TARGETS_DN	227	0.4451	1.8193	0.0020	0.0313
		71	66	45	82
LI_AMPLIFIED_IN_LUNG_CANCER	170	0.5344	1.8189	0.0105	0.0314
		73	5	26	73
NADERI_BREAST_CANCER_PROGNOSIS_UP	46	0.5823	1.8171	0.0145	0.0319
		61	92	53	75
REACTOME_FORMATION_OF_TUBULIN_FOLDING_INTERMEDIATES_BY_CCT_TRIC	21	0.6717	1.8167	0.0079	0.0320
		39	08	21	4
REACTOME_RESPIRATORY_ELECTRON_TRANSPORT	64	0.7569	1.8156	0.0087	0.0321
		11	02	72	26
KEGG_ALZHEIMERS_DISEASE	154	0.5136	1.8159	0.0126	0.0321
		25	09	32	43
GOLUB_ALL_VS_AML_UP	24	0.5770	1.8144	0.0062	0.0322

		33	99	24	92
KUROKAWA_LIVER_CANCER_CHEMOTHERAPY_DN	38	0.5264	1.8147	<0.000	0.0323
		65	42	1	14
WATANABE_RECTAL_CANCER_RADIOOTHERAPY_RESPONSIVE_UP	103	0.4717	1.8117	0.0041	0.0330
		54	31	67	89
TIEN_INTESTINE_PROBIOTICS_2HR_UP	27	0.6133	1.8091	0.0078	0.0338
		52	59	28	1
PUJANA_BRCA_CENTERED_NETWORK	114	0.6306	1.8085	0.0119	0.0339
		73	13	05	04
FLORIO_NEOCORTEX_BASAL_RADIAL_GLIA_DN	187	0.5769	1.8057	0.0275	0.0345
		32	83	59	4
WU_HBX_TARGETS_2_UP	22	0.5948	1.8059	0.0063	0.0345
		66	18	83	86
YAO_TEMPORAL_RESPONSE_TO_PROGESTERONE_CLUSTER_12	77	0.5006	1.8052	0.0085	0.0346
		42	68	11	14
AKL_HTLV1_INFECTION_UP	24	0.5873	1.8044	0.0124	0.0348
		52	55	74	19
MOOTHA_VOXPPOS	83	0.7265	1.8037	0.0110	0.0348
		96	59	38	55
MARTINEZ_RESPONSE_TO_TRABECTEDIN_DN	265	0.4953	1.8038	0.0038	0.0348
		14	96	91	95
REACTOME_MHC_CLASS_II_ANTIGEN_PRESENTATION	87	0.4646	1.8026	0.0096	0.0351
		02	77	53	54
ZHAN_MULTIPLE_MYELOMA_PR_UP	43	0.7585	1.8018	0.0177	0.0352
		63	42	51	01
TANG_SENESCENCE_TP53_TARGETS_DN	54	0.6321	1.8020	0.0274	0.0352
		62	75	51	41
SIMBULAN_PARP1_TARGETS_DN	17	0.7134	1.7995	0.0080	0.0357
		25	93	16	2
KEGG_BIOSYNTHESIS_OF_UNSATURATED_FATTY_ACIDS	20	0.6262	1.7998	0.0041	0.0357
		96	17	49	55
MARIADASON_RESPONSE_TO_CURCUMIN_SULINDAC_5	21	0.5975	1.7974	0.0122	0.0358

		93	33	7	19
MITSIADES_RESPONSE_TO_APLIDIN_DN	239	0.5194	1.7984	0.0190	0.0358
		1	35	84	7
REACTOME_CHOLESTEROL_BIOSYNTHESIS	20	0.8081	1.7975	0.0041	0.0358
		33	39	58	82
REACTOME_ASSOCIATION_OF_TRIC_CCT_WITH_TARGET_PROTEINS_DURING_BIOSYNTHESIS	26	0.5673	1.7985	0.0114	0.0359
		71	86	72	12
KOKKINAKIS_METHIONINE_DEPRIVATION_96HR_DN	75	0.4793	1.7977	0.0080	0.0359
		08	82	32	14
BIOCARTA_ACTINY_PATHWAY	20	0.6369	1.7979	0.0099	0.0359
		89	32	6	64
BOUDOUKHA_BOUND_BY_IGF2BP2	103	0.4620	1.7966	0.0082	0.0359
		79	78	64	7
REACTOME_RESPIRATORY_ELECTRON_TRANSPORT_ATP_SYNTHESIS_BY_CHEMIOSMOTIC_COUPLING_AND_HEAT_PRODUCTION_BY_UNCOUPLING_PROTEINS_	79	0.7234	1.7957	0.0129	0.0361
		52	27	59	12
WANG_METASTASIS_OF_BREAST_CANCER_ESR1_UP	19	0.6877	1.7958	0.0097	0.0361
		62	2	66	71
SHAFFER_IRF4_TARGETS_IN_MYELOMA_VS_MATURE_B_LYMPHOCYTE	99	0.4842	1.7938	0.006	0.0366
		45	91		24
EGUCHI_CELL_CYCLE_RB1_TARGETS	23	0.8302	1.7923	0.0039	0.0367
		2	16	29	91
REACTOME_DEPOSITION_OF_NEW_CENPA_CONTAINING_NUCLEOSOMES_AT_THE_CENTROMERE	56	0.7789	1.7931	0.0174	0.0367
		67	24	76	95
LIANG_HEMATOPOIESIS_STEM_CELL_NUMBER_SMALL_VS_HUGE_UP	37	0.5331	1.7925	0.0019	0.0368
		82	43	84	07
LUI_THYROID_CANCER_PAX8_PPARG_DN	45	0.6212	1.7910	0.0157	0.0368
		85	65	79	2
PUJANA_BRCA2_PCC_NETWORK	400	0.5160	1.7927	0.0217	0.0368
		99	46	39	33
KEGG_MISMATCH_REPAIR	23	0.6799	1.7904	0.0098	0.0369
		82	84	23	13
ELVIDGE_HIF1A_AND_HIF2A_TARGETS_UP	38	0.5469	1.7914	0.0061	0.0369

			3	05	35	29
SPIELMAN_LYMPHOBLAST_EUROPEAN_VS_ASIAN_UP	466	0.4633	1.7916	0.0228	0.0369	
		84	53	69	32	
YAMASHITA_LIVER_CANCER_WITH_EPCAM_UP	52	0.5948	1.7888	0.0201	0.0373	
		54	11	21	19	
PID_FOXM1_PATHWAY	39	0.5569	1.7889	0.0175	0.0373	
		51	25	1	88	
WANG_SMARCE1_TARGETS_DN	346	0.4160	1.7883	<0.000	0.0374	
		7	66	1	02	
BURTON_ADIPOGENESIS_PEAK_AT_16HR	40	0.6212	1.7871	0.0337	0.0375	
		59	73	97	94	
REACTOME_INFLUENZA_LIFE_CYCLE	134	0.6405	1.7873	0.0225	0.0376	
		4	56	41	25	
REACTOME_MEMBRANE_TRAFFICKING	121	0.4476	1.7868	0.0020	0.0376	
		86	18	66	46	
LANG_MYB_FAMILY_TARGETS	29	0.5388	1.7863	0.0038	0.0377	
		95	76	76	18	
REACTOME_SIGNALING_BY_THE_B_CELL_RECEPTOR_BCR	121	0.4390	1.7849	0.0102	0.0381	
		85	33	88	85	
REACTOME_RNA_POL_II_TRANSCRIPTION	93	0.5399	1.7834	0.0161	0.0385	
		65	33	94	41	
SCHMIDT_POR_TARGETS_IN_LIMB_BUD_UP	25	0.7186	1.7836	0.0039	0.0385	
		63	61	76	82	
MODY_HIPPOCAMPUS_PRENATAL	42	0.6138	1.7826	0.0188	0.0387	
		04	23	68	07	
SCIAN_CELL_CYCLE_TARGETS_OF_TP53_AND_TP73_DN	22	0.7500	1.7823	0.01	0.0387	
		21	5		25	
GOLDRATH_ANTIGEN_RESPONSE	331	0.4734	1.7798	0.0183	0.0396	
		26	62	67	17	
ZHAN_MULTIPLE_MYELOMA_SUBGROUPS	30	0.6507	1.7790	0.0121	0.0398	
		27	29	95	74	
XU_RESPONSE_TO_TRETINOIN_AND_NSC682994_DN	15	0.7328	1.7774	0.0139	0.0402	

		36	27	44	94
REACTOME_DARPP_32_EVENTS	23	0.5979	1.7768	0.0140	0.0404
		68	38	28	34
FERREIRA_EWINGS_SARCOMA_UNSTABLE_VS_STABLE_UP	148	0.5453	1.7759	0.0189	0.0406
		56	49	47	65
ISHIDA_E2F_TARGETS	50	0.7448	1.7742	0.0200	0.0410
		86	69	4	15
KEGG_UBIQUITIN_MEDIATED_PROTEOLYSIS	129	0.4303	1.7746	0.0079	0.0410
		51	86	37	62
NUNODA_RESPONSE_TO_DASATINIB_IMATINIB_UP	29	0.5490	1.7743	0.0062	0.0410
		41	97	76	82
KONG_E2F3_TARGETS	94	0.6471	1.7709	0.0295	0.0420
		21	7	86	81
DELPUECH_FOXO3_TARGETS_DN	39	0.6093	1.7706	0.0061	0.0421
		06	8	22	11
BARRIER_COLON_CANCER_RECURRENCE_UP	41	0.5888	1.7710	0.0059	0.0421
		64	09	17	66
JIANG_HYPOXIA_CANCER	76	0.4561	1.7699	0.0040	0.0422
		47	85	82	5
SESTO_RESPONSE_TO_UV_C3	19	0.6411	1.7693	0.0121	0.0424
		83	04	21	44
STEIN_ESRRA_TARGETS_RESPONSIVE_TO_ESTROGEN_DN	38	0.6351	1.7680	0.0193	0.0425
		26	83	8	94
ABRAHAM_ALPC_VS_MULTIPLE_MYELOMA_DN	19	0.5675	1.7681	0.0102	0.0426
		24	45	04	76
KEGG_PROTEIN_EXPORT	22	0.7161	1.7682	0.0080	0.0427
		37	02	81	63
IVANOVA_HEMATOPOIESIS_LATE_PROGENITOR	497	0.4109	1.7644	0.0019	0.0437
		14	1	84	7
LANDIS_ERBB2_BREAST_TUMORS_65_UP	21	0.6193	1.7649	0.0173	0.0437
		38	71	08	78
KEGG_SPLICEOSOME	123	0.5487	1.7645	0.0229	0.0438

		62	03	17	4
CHENG_RESPONSE_TO_NICKEL_ACETATE	41	0.4876	1.7617	0.0020	0.0448
		03	16	33	07
EPPERT_PROGENITOR	125	0.5359	1.7604	0.0097	0.0451
		36	8	66	42
HORTON_SREBF_TARGETS	24	0.7603	1.7592	0.0083	0.0455
		23	95	86	46
REACTOME_CTNNB1_PHOSPHORYLATION_CASCADE	15	0.6303	1.7586	0.0077	0.0456
		18	69	52	33
JIANG_AGING_CEREBRAL_CORTEX_UP	34	0.5458	1.7579	0.0102	0.0457
		77	79	04	71
KRIEG_KDM3A_TARGETS_NOT_HYPOXIA	185	0.4316	1.7575	0.0019	0.0458
		31	4	57	39
REACTOME_G2_M_CHECKPOINTS	41	0.7056	1.7566	0.0160	0.0460
		8	99	32	72
FRASOR_RESPONSE_TO_SERM_OR_FULVESTRANT_DN	50	0.6403	1.7536	0.0314	0.0464
		3	94	34	63
CHESLER_BRAIN_QTL_CIS	69	0.4306	1.7541	<0.000	0.0465
		5	47	1	19
PID_AURORA_B_PATHWAY	37	0.6212	1.7546	0.0297	0.0465
		51	62	03	51
REACTOME_DESTABILIZATION_OF_MRNA_BY_TRISTETRAPROLIN_TTP	17	0.6340	1.7543	0.0039	0.0465
		52	04	45	65
KEGG_PYRUVATE_METABOLISM	37	0.5641	1.7537	0.0160	0.0465
		3	04	32	71
BIOCARTA_IGF1MTOR_PATHWAY	20	0.5481	1.7551	0.0099	0.0465
		56	43	21	94
REACTOME_FATTY_ACYL_COA_BIOSYNTHESIS	18	0.6272	1.7530	0.0079	0.0466
		04	88	84	16
PENG_GLUCOSE_DEPRIVATION_DN	162	0.4067	1.7547	<0.000	0.0466
		1	85	1	25
BURTON_ADIPOGENESIS_6	177	0.4644	1.7517	0.0124	0.0470

		83	77	48	59
ACOSTA_PROLIFERATION_INDEPENDENT_MYC_TARGETS_UP	75	0.4951	1.7500	0.0101	0.0475
		18	91	21	89
BARRIER_CANCER_RELAPSE_TUMOR_SAMPLE_UP	15	0.7834	1.7488	0.0060	0.0479
		28	84	24	62
REACTOME_POST_TRANSLATIONAL_PROTEIN_MODIFICATION	174	0.4229	1.7477	0.0056	0.0480
		53	77	93	87
LUI_TARGETS_OF_PAX8_PPARG_FUSION	34	0.6587	1.7479	0.0239	0.0481
		7	45	52	38
TIEN_INTESTINE_PROBIOTICS_6HR_UP	55	0.5906	1.7479	0.0263	0.0482
		24	93	16	31
MAYBURD_RESPONSE_TO_L663536_DN	51	0.5718	1.7469	0.0193	0.0482
		52	31	8	91
ACEVEDO_LIVER_CANCER_WITH_H3K9ME3_DN	107	0.5278	1.7451	0.0195	0.0488
		12	83	69	2
GROSS_HYPOXIA_VIA_HIF1A_UP	75	0.4719	1.7453	0.0082	0.0488
		67	89	3	55
JOHANSSON_GLIOMAGENESIS_BY_PDGFB_UP	57	0.4748	1.7435	0.0213	0.0493
		83	53	59	52
WANG_CISPLATIN_RESPONSE_AND_XPC_UP	192	0.4124	1.7428	0.0063	0.0495
		91	74	03	31
XU_HGF_SIGNALING_NOT_VIA_AKT1_48HR_DN	20	0.5953	1.7417	0.0134	0.0498
		06	71	87	92
WHITFIELD_CELL_CYCLE_G2	169	0.4466	1.7401	0.0238	0.0504
		57	57	57	64
WALLACE_PROSTATE_CANCER_UP	20	0.6375	1.7395	0.0077	0.0506
		15	36	37	25
JI_RESPONSE_TO_FSH_UP	70	0.4358	1.7361	0.0081	0.0519
		5	77	47	72
REACTOME_ACTIVATION_OF_ATR_IN_RESPONSE_TO_REPLICATION_STRESS	35	0.7034	1.7357	0.0220	0.0520
		37	83	44	35
JAIN_NFKB_SIGNALING	71	0.4490	1.7353	0.0041	0.0521

			12	16	75	22
KEGG_CYSTEINE_AND_METHIONINE_METABOLISM	33	0.5031	1.7349	0.0038	0.0521	
			23	56	46	71
REACTOME_DNA_STRAND_ELONGATION	30	0.7435	1.734	0.0184	0.0524	
			94		43	74
CHEMNITZ_RESPONSE_TO_PROSTAGLANDIN_E2_UP	129	0.4915	1.7325	0.0234	0.0530	
			91	73	54	35
PUJANA_BREAST_CANCER_LIT_INT_NETWORK	97	0.4939	1.7312	0.0352	0.0533	
			93	87	25	66
FLECHNER_PBL_KIDNEY_TRANSPLANT_REJECTED_VS_OK_UP	62	0.4589	1.7314	0.0096	0.0534	
			38	64	9	14
BIOCARTA_CDC42RAC_PATHWAY	16	0.6935	1.7308	0.0117	0.0534	
			99	44	42	24
BIOCARTA_EIF_PATHWAY	16	0.6211	1.7292	0.0118	0.0538	
			1	68	58	87
SANSOM_APC_TARGETS_UP	114	0.4115	1.7290	<0.000	0.0539	
			77	11	1	
HASLINGER_B_CLL_WITH_6Q21_DELETION	18	0.6906	1.7293	0.0173	0.0539	
			66	59	41	59
LOCKWOOD_AMPLIFIED_IN_LUNG_CANCER	205	0.4389	1.7284	0.0180	0.0540	
			73	84	36	44
VANHARANTA_UTERINE_FIBROID_WITH_7Q_DELETION_UP	65	0.4699	1.7263	0.0121	0.0549	
			02	59	7	87
ZHOU_TNF_SIGNALING_30MIN	51	0.5542	1.7254	0.0227	0.0552	
			09	51	27	36
DARWICHE_SQUAMOUS_CELL_CARCINOMA_UP	129	0.3974	1.7242	0.0020	0.0554	
			72	04	45	86
PEART_HDAC_PROLIFERATION_CLUSTER_UP	55	0.4745	1.7244	0.0135	0.0555	
			59		66	14
REACTOME_MRNA_CAPPING	28	0.5638	1.7245	0.0261	0.0555	
			57	67	04	35
REACTOME_MRNA_PROCESSING	151	0.5225	1.7231	0.0286	0.0556	

			35	3	69
PIONTEK_PKD1_TARGETS_DN	16	0.6092	1.7234	0.01	0.0557
		58	55		07
REACTOME_GOLGI_ASSOCIATED_VESICLE_BIOGENESIS	50	0.4729	1.7231	0.0081	0.0557
		36	1	8	82
SESTO_RESPONSE_TO_UV_C1	72	0.5064	1.7220	0.0136	0.0559
		38	05	72	41
MACLACHLAN_BRCA1_TARGETS_UP	21	0.5895	1.7221	0.0177	0.0560
		3	26	87	1
REACTOME_ACTIVATION_OF_THE_MRNA_UPON_BINDING_OF_THE_CAP_BINDING_COMPLEX_AND_EIFS_AND_SUBSEQUENT_BIN	56	0.6636	1.7213	0.0335	0.0560
DING_TO_43S		24	77	97	91
REACTOME_FORMATION_OF_THE_TERNARY_COMPLEX_AND_SUBSEQUENTLY_THE_43S_COMPLEX	48	0.7044	1.7207	0.0278	0.0560
		28	67	88	92
LI_WILMS_TUMOR_VS_FETAL_KIDNEY_1_DN	159	0.5303	1.7209	0.0307	0.0561
		36	14	38	58
REACTOME_E2F_MEDIATED_REGULATION_OF_DNA_REPLICATION	33	0.6500	1.7189	0.0217	0.0568
		71	46	39	5
BURTON_ADIPOGENESIS_10	27	0.5704	1.7182	0.0196	0.0570
		59	49	85	35
MORI_PLASMA_CELL_UP	49	0.5514	1.7170	0.0118	0.0573
		16	84	11	54
ZHU_CMV_ALL_UP	118	0.4839	1.7171	0.0260	0.0574
		68	52	52	36
ENK_UV_RESPONSE_KERATINOCYTE_DN	479	0.4348	1.7162	0.0136	0.0576
		47	48	99	05
PUIFFE_INVASION_INHIBITED_BY_ASCITES_UP	81	0.4359	1.7152	0.0098	0.0578
		46	08	81	22
MILI_PSEUDOPODIA_HAPTOTAXIS_UP	483	0.5632	1.7153	0.0352	0.0578
		22	86	94	74
IIZUKA_LIVER_CANCER_PROGRESSION_G1_G2_DN	24	0.5636	1.7142	0.0098	0.0580
		7	55	23	78
REACTOME_SRP_DEPENDENT_COTRANSLATIONAL_PROTEIN_TARGETING_TO_MEMBRANE	107	0.6729	1.7133	0.0341	0.0581

			74	63	37	06
PARK_HSC_VS_MULTIPOTENT_PROGENITORS_DN	18	0.6096	1.7143	0.0116	0.0581	
			16	58	73	47
ZHONG_SECRETOME_OF_LUNG_CANCER_AND_FIBROBLAST	127	0.4679	1.7133	0.0161	0.0582	
			71	96	29	21
REACTOME_LAGGING_STRAND_SYNTHESIS	19	0.7440	1.7135	0.0061	0.0582	
			25	34	35	65
COLLIS_PRKDC_REGULATORS	15	0.5845	1.7120	0.0158	0.0586	
			02	33	73	08
LY_AGING_PREMATURE_DN	29	0.6169	1.7101	0.0225	0.0593	
			12	99	87	13
GAVIN_FOXP3_TARGETS_CLUSTER_T7	95	0.4574	1.7082	0.0285	0.0599	
			87	95	71	84
NAM_FXYD5_TARGETS_DN	18	0.6297	1.7083	0.0304	0.0600	
			72	51	88	86
KEGG_VALINE_LEUCINE_AND_ISOLEUCINE_DEGRADATION	44	0.5816	1.7077	0.0203	0.0601	
			83	07	67	14
FINETTI_BREAST_CANCER_KINOME_RED	16	0.8483	1.7065	0.0081	0.0605	
			43	43	3	57
STEIN_ESR1_TARGETS	81	0.4541	1.7042	0.0154	0.0616	
			22	17	74	23
REACTOME_PROCESSING_OF_CAPPED_INTRON_CONTAINING_PRE_MRNA	132	0.5387	1.7028	0.0269	0.0620	
			69	69	15	01
WANG_LMO4_TARGETS_DN	326	0.4093	1.7025	0.0058	0.0620	
			53	43	37	44
REACTOME_TRANS_GOLGI_NETWORK_VESICLE_BUDDING	57	0.4581	1.7029	0.0121	0.0620	
			16	59	95	92
VERNELL_RETINOBLASTOMA_PATHWAY_UP	68	0.6132	1.7022	0.0463	0.0621	
			06	04	71	02
AIYAR_COBRA1_TARGETS_DN	28	0.5074	1.6994	0.0102	0.0634	
			03	32	04	13
REACTOME_PEROXISOMAL_LIPID_METABOLISM	20	0.6190	1.6984	0.0294	0.0636	

		22	04	74	91
WANG_TUMOR_INVASIVENESS_DN	201	0.3849	1.6986	0.0019	0.0637
		45	17	12	04
REACTOME_FORMATION_OF_RNA_POL_II_ELONGATION_COMPLEX_	35	0.5369	1.6979	0.0348	0.0637
		1	54	36	41
LIU_PROSTATE_CANCER_UP	88	0.4326	1.6969	0.0159	0.0639
		77	31	36	89
ELVIDGE_HYPOXIA_BY_DMOG_DN	54	0.4801	1.6971	0.0224	0.0640
		05	26	03	53
BROWN_MYELOID_CELL_DEVELOPMENT_DN	119	0.4065	1.6946	0.0080	0.0647
		61	5	48	78
ZHONG_RESPONSE_TO_AZACITIDINE_AND_TSA_DN	63	0.5139	1.6947	0.0240	0.0648
		17	47	48	49
JIANG_AGING_CEREBRAL_CORTEX_DN	52	0.4589	1.6947	0.0132	0.0649
		54	53	83	78
PID_PRL_SIGNALING_EVENTS_PATHWAY	23	0.5449	1.6909	0.0203	0.0663
		08	06	25	12
PID_ERBB1_DOWNSTREAM_PATHWAY	105	0.4237	1.6905	0.008	0.0663
		54	63		62
REACTOME_ENDOSOMAL_SORTING_COMPLEX_REQUIRED_FOR_TRANSPORT_ESCRT	26	0.5948	1.6910	0.0204	0.0663
		47	6	92	86
BOHN_PRIMARY_IMMUNODEFICIENCY_SYNDROM_UP	45	0.5043	1.6895	0.0173	0.0666
		31	51	41	65
REACTOME_UNFOLDED_PROTEIN_RESPONSE	72	0.4445	1.6891	0.0216	0.0667
		26	31	11	26
KEGG_STEROID_BIOSYNTHESIS	16	0.7009	1.6879	0.0179	0.0671
		97	76	64	9
KEGG_PEROXISOME	77	0.4954	1.6867	0.0290	0.0677
		96	25	46	64
VANTVEER_BREAST_CANCER_ESR1_DN	225	0.4134	1.6855	0.0117	0.0682
			76	88	25
JEON_SMAD6_TARGETS_DN	19	0.6084	1.6851	0.0325	0.0683

		16	04	2	52
KEGG_CITRATE_CYCLE_TCA_CYCLE	29	0.6377	1.6839	0.0301	0.0685
		57	89	2	47
REACTOME_MRNA_SPLICING	104	0.5445	1.6840	0.0390	0.0686
		84	74	14	35
TURASHVILI_BREAST_DUCTAL_CARCINOMA_VS_LOBULAR_NORMAL_UP	71	0.5362	1.6841	0.0218	0.0687
		14	06	69	45
TOOKER_GEMCITABINE_RESISTANCE_UP	76	0.4705	1.6829	0.0245	0.0689
		23	3	4	76
KAUFFMANN_DNA_REPAIR_GENES	219	0.4670	1.6816	0.0349	0.0692
		89	27	79	96
BIOCARTA_G2_PATHWAY	24	0.5847	1.6816	0.0251	0.0694
		62	46	57	2
REACTOME_LYSOSOME_VESICLE_BIOGENESIS	23	0.5483	1.6783	0.0333	0.0707
		69	64	33	3
HAHTOLA_CTCL_CUTANEOUS	25	0.5500	1.6772	0.0214	0.0712
		37	66	84	59
NAKAYAMA_SOFT_TISSUE_TUMORS_PCA2_UP	85	0.4870	1.6753	0.0260	0.0721
		53	88	52	43
REICHERT_MITOSIS_LIN9_TARGETS	27	0.6842	1.6749	0.03	0.0722
		71	95		39
KEGG_ARGININE_AND_PROLINE_METABOLISM	50	0.4780	1.6728	0.0161	0.0727
		13	49	94	49
CHOI_ATL_CHRONIC_VS_ACUTE_DN	18	0.6489	1.6732	0.0193	0.0727
		09	58	05	74
DING_LUNG_CANCER_EXPRESSION_BY_COPY_NUMBER	96	0.5393	1.6722	0.0415	0.0728
		12	26	88	02
REACTOME_INTRINSIC_PATHWAY_FOR_APOPTOSIS	29	0.5173	1.6716	0.0127	0.0728
		15	7	66	44
KEGG_RNA_POLYMERASE	29	0.5933	1.6733	0.0309	0.0728
		45	18	28	69
FOURNIER_ACINAR_DEVELOPMENT_LATE_DN	21	0.6241	1.6723	0.0391	0.0728

			73	3	39	8
WANG_RESPONSE_TO_FORSKOLIN_UP	22	0.581	1.6734	0.0292	0.0729	
			66	4	42	
CEBALLOS_TARGETS_OF_TP53_AND_MYC_UP	21	0.5235	1.6717	0.0254	0.0729	
		16	32	4	42	
SESTO_RESPONSE_TO_UV_C6	38	0.5233	1.6710	0.0223	0.0731	
		31	14	12	21	
BURTON_ADIPOGENESIS_4	44	0.4866	1.6692	0.0084	0.0740	
		04	2	39	63	
WILLIAMS_ESR1_TARGETS_UP	26	0.5278	1.6680	0.0160	0.0744	
		03	23	97	97	
REACTOME_FORMATION_OF_THE_HIV1_EARLY_ELONGATION_COMPLEX	28	0.5575	1.6682	0.0334	0.0745	
		71	55	03	02	
REACTOME_EXTENSION_OF_TELOMERES	27	0.6812	1.6664	0.0306	0.0752	
		76	51	12	59	
KEGG_PROPANOATE_METABOLISM	32	0.5545	1.6659	0.0363	0.0754	
		64	4	64	13	
BIOCARTA_MITOCHONDRIA_PATHWAY	21	0.5852	1.6652	0.0228	0.0757	
		1	39	22		
TAKAO_RESPONSE_TO_UVB_RADIATION_UP	82	0.5627	1.6644	0.0425	0.0759	
		38	5	53	76	
PUIFFE_INVASION_INHIBITED_BY_ASCITES_DN	141	0.4601	1.6632	0.0234	0.0765	
		36	58	83	11	
STEIN_ESRRA_TARGETS	495	0.3681	1.6628	0.0224	0.0765	
		32	04	49	14	
TOMIDA_METASTASIS_UP	26	0.5558	1.6620	0.0254	0.0766	
		16	16	9	91	
KAPOSI_LIVER_CANCER_MET_UP	17	0.5654	1.6598	0.0118	0.0777	
		65	55	34	7	
PID_BARD1_PATHWAY	28	0.6276	1.6591	0.0463	0.0780	
		41	55	71	97	
REACTOME_GLOBAL_GENOMIC_NER_GG_NER	32	0.5662	1.6581	0.0383	0.0784	

			59	07	84	03
REACTOME_INTERACTIONS_OF_VPR_WITH_HOST_CELLULAR_PROTEINS	31	0.5841	1.6567	0.026	0.0790	
			03	43		38
LUI_THYROID_CANCER_CLUSTER_3	28	0.6713	1.6558	0.0364	0.0794	
			69	67	37	36
REACTOME_KINESINS	23	0.5824	1.6537	0.0464	0.0804	
			57	89	65	43
REACTOME_PROCESSIVE_SYNTHESIS_ON_THE_LAGGING_STRAND	15	0.7154	1.6526	0.0184	0.0806	
			98	84	05	37
GRAHAM_CML_QUIESCENT_VS_NORMAL_QUIESCENT_UP	80	0.4682	1.6528	0.0304	0.0806	
			66	95	26	68
PECE_MAMMARY_STEM_CELL_UP	134	0.5207	1.6520	0.0440	0.0807	
			72	41	25	3
BIOCARTA_CELLCYCLE_PATHWAY	23	0.5644	1.6520	0.0256	0.0808	
			4	92	41	48
LY_AGING_MIDDLE_DN	16	0.7561	1.6501	0.0258	0.0815	
				95	45	29
REACTOME_DEADENYLATION_OF_MRNA	17	0.5705	1.6484	0.0253	0.0821	
			13	77	41	68
XU_CREBBP_TARGETS_UP	24	0.5177	1.6485	0.0202	0.0823	
			31	99	84	71
MCCABE_HOXC6_TARGETS_CANCER_DN	20	0.5373	1.6472	0.0186	0.0827	
			91	87	34	83
REACTOME_G0_AND_EARLY_G1	23	0.6355	1.6463	0.0337	0.0830	
			77	25	3	86
CHAUHAN_RESPONSE_TO_METHOXYESTRADIOL_DN	97	0.4402	1.6465	0.0436	0.0831	
			67	32	51	03
REACTOME_POST_TRANSLATIONAL_MODIFICATION_SYNTHESIS_OF_GPI_ANCHORED_PROTEINS	26	0.5357	1.6453	0.0281	0.0833	
			51	59	69	6
MARIADASON_RESPONSE_TO_CURCUMIN_SULINDAC_7	16	0.5352	1.6454	0.0210	0.0834	
			15	98	33	24
REACTOME_DESTABILIZATION_OF_MRNA_BY_KSRP	17	0.6055	1.6424	0.0162	0.0848	

		01	14	27	27
WATANABE_RECTAL_CANCER_RADIOOTHERAPY_RESPONSIVE_DN	89	0.4373	1.6414	0.0142	0.0853
		04	22	28	07
NOUZOVA_TRETINOIN_AND_H4_ACETYLTATION	130	0.4091	1.6410	0.0103	0.0853
		43	74	31	46
YIH_RESPONSE_TO_ARSENITE_C3	35	0.4778	1.6403	0.0317	0.0856
		16	92	46	17
SU_TESTIS	63	0.5214	1.6394	0.0299	0.0860
		48	94	4	01
GAZDA_DIAMOND_BLACKFAN_ANEMIA_MYELOID_DN	36	0.4722	1.6372	0.0317	0.0868
		36	08	46	05
MARTORIATI_MDM4_TARGETS_FETAL_LIVER_UP	207	0.3562	1.6372	0.0020	0.0869
		76	58	49	32
KEGG_ALANINE_ASPARTATE_AND_GLUTAMATE_METABOLISM	32	0.4793	1.6367	0.0163	0.0869
		99	68	6	56
BIOCARTA_NDKDYNAMIN_PATHWAY	18	0.5215	1.6356	0.0337	0.0875
		93	37	08	13
FLECHNER_PBL_KIDNEY_TRANSPLANT_OK_VS_DONOR_UP	145	0.3668	1.6333	0.0122	0.0886
		37	24	2	85
PID_LIS1_PATHWAY	28	0.4942	1.6334	0.0136	0.0887
		05	29	72	64
REACTOME_ANTIVIRAL_MECHANISM_BY_IFN_STIMULATED_GENES	64	0.4801	1.6309	0.0487	0.0899
		43	54	33	68
SCHAEFFER_PROSTATE_DEVELOPMENT_AND_CANCER_BOX4_DN	32	0.5735	1.6300	0.0433	0.0904
		94	71	93	09
GALLUZZI_PERMEABILIZE_MITOCHONDRIA	43	0.4467	1.6291	0.0187	0.0908
		19	59	11	11
REACTOME_RESOLUTION_OF_AP_SITES_VIA_THE_MULTIPLE_NUCLEOTIDE_PATCH_REPLACEMENT_PATHWAY	17	0.648	1.6287	0.0460	0.0909
			42	25	24
PID_ATM_PATHWAY	33	0.5301	1.6274	0.0344	0.0912
		27	88	83	66
GEORGES_CELL_CYCLE_MIR192_TARGETS	61	0.5311	1.6276	0.0373	0.0912

		2	83	28	86
REACTOME_PYRUVATE_METABOLISM	18	0.5885	1.6277	0.0327	0.0914
		87	29	2	07
KOINUMA_COLON_CANCER_MSI_UP	16	0.6697	1.6265	0.0447	0.0917
		29	8	47	67
KAAB_HEART_ATRIUM_VS_VENTRICLE_DN	254	0.3630	1.6230	0.0103	0.0938
		84	92	31	12
FARMER_BREAST_CANCER_CLUSTER_3	15	0.5907	1.6223	0.0421	0.0941
		07	74	25	41
NADLER_OBESITY_DN	47	0.4687	1.6212	0.0319	0.0945
		76	92	36	27
MODY_HIPPOCAMPUS_NEONATAL	35	0.4977	1.6208	0.0272	0.0946
		75	05	37	9
LIU_SOX4_TARGETS_DN	292	0.3467	1.6146	0.0159	0.0982
		85	78	05	92
KEGG_N_GLYCAN_BIOSYNTHESIS	46	0.4704	1.6142	0.0257	0.0983
		2	37	43	82
REACTOME_CITRIC_ACID_CYCLE_TCA_CYCLE	19	0.6690	1.6131	0.0482	0.0989
		74	29	9	5
STEIN_ESRRA_TARGETS_UP	361	0.3995	1.6104	0.0452	0.1005
		81	5	67	52
MOOTHA_TCA	16	0.6943	1.6091	0.0405	0.1011
		64	54	68	31
REACTOME_AMINO_ACID_SYNTHESIS_AND_INTERCONVERSION_TRANSAMINATION	15	0.6368	1.6086	0.0419	0.1012
		98	64	16	79
REACTOME_DESTABILIZATION_OF_MRNA_BY_BRF1	17	0.5725	1.6079	0.0321	0.1013
		3	64	29	84
PID_ARF6_DOWNSTREAM_PATHWAY	15	0.5822	1.6074	0.0294	0.1015
		71	56	7	12
LAU_APOPTOSIS_CDKN2A_UP	55	0.4169	1.6079	0.0244	0.1015
		65	96	4	4
HOUSTIS_ROS	35	0.4920	1.6033	0.0400	0.1040

			33	61	76	48
TARTE_PLASMA_CELL_VS_B_LYMPHOCYTE_UP	75	0.4751	1.6026	0.0468	0.1043	
		4	71	75	77	
HOEBEKE_LYMPHOID_STEM_CELL_DN	82	0.4079	1.6014	0.0341	0.1050	
		43	59	37	61	
ZHENG_GLIOBLASTOMA_PLASTICITY_UP	239	0.3839	1.6004	0.0387	0.1054	
		12		6	14	
MARKEY_RB1_CHRONIC_LOF_UP	111	0.3793	1.6004	0.0190	0.1055	
		09	13	48	83	
PID_TELOMERASE_PATHWAY	67	0.4088	1.5984	0.0191	0.1064	
		49	28	2	56	
ANDERSEN_LIVER_CANCER_KRT19_UP	34	0.6071	1.5980	0.0470	0.1065	
		61	41	35	54	
ZHONG_SECRETOME_OF_LUNG_CANCER_AND_MACROPHAGE	74	0.4571	1.5969	0.0488	0.1070	
		85	75	8	38	
KIM_WT1_TARGETS_12HR_DN	200	0.3632	1.5941	0.0077	0.1086	
		62	39	82	84	
PARK_HSC_VS_MULTIPOTENT_PROGENITORS_UP	18	0.5177	1.5926	0.0234	0.1095	
		19	99	38	33	
SWEET_LUNG_CANCER_KRAS_UP	465	0.3502	1.5919	0.0162	0.1099	
		69	51	27	68	
DUTERTRE ESTRADIOL_RESPONSE_6HR_UP	218	0.3827	1.59	0.0298	0.1111	
		34		21	64	
KEGG_AMINO_SUGAR_AND_NUCLEOTIDE_SUGAR_METABOLISM	43	0.4896	1.5858	0.0425	0.1137	
		54	26	96	01	
JIANG_VHL_TARGETS	129	0.3853	1.5841	0.0312	0.1145	
		48	67	5	31	
BYSTRYKH_HEMATOPOIESIS_STEM_CELL_QTL_CIS	109	0.3632	1.5828	0.0161	0.1149	
		18	57	94	65	
TAYLOR_METHYLATED_IN_ACUTE_LYMPHOBLASTIC_LEUKEMIA	73	0.4252	1.5822	0.0099	0.1152	
		58	85	8	42	
SWEET_KRAS_ONCOGENIC_SIGNATURE	88	0.4108	1.5809	0.0342	0.1154	

		03	63	74	57
KARAKAS_TGFB1_SIGNALING	18	0.5782	1.5800	0.0483	0.1155
		01	02	56	67
PID_P53_REGULATION_PATHWAY	57	0.4305	1.5790	0.0260	0.1159
		18	63	52	44
DARWICHE_PAPILLOMA_RISK_HIGH_UP	131	0.3694	1.5772	0.0123	0.1170
		32	7	71	92
KYNG_RESPONSE_TO_H2O2_VIA_ERCC6_UP	39	0.4208	1.5764	0.0160	0.1175
		78	67	32	28
MARIADASON_RESPONSE_TO_BUTYRATE_SULINDAC_4	21	0.5582	1.5732	0.0328	0.1191
			34	54	6
APRELIKOVA_BRCA1_TARGETS	48	0.4544	1.5736	0.0355	0.1192
		59	02	73	71
ONDER_CDH1_TARGETS_1_DN	163	0.4480	1.5718	0.0406	0.1199
		28	43	19	6
HOFMANN_MYELODYSPLASTIC_SYNDROM_LOW_RISK_DN	30	0.5303	1.5707	0.0443	0.1203
		82	44	55	72
ACEVEDO_NORMAL_TISSUE_ADJACENT_TO_LIVER_TUMOR_DN	336	0.3906	1.5688	0.0481	0.1214
		86	42	93	85
JAEGER_METASTASIS_UP	43	0.4618	1.5682	0.0444	0.1215
		16	32	02	64
KYNG_WERNER_SYNDROM_AND_NORMAL_AGING_DN	210	0.3187	1.5679	0.0058	0.1215
		31	57	82	77
ST_FAS_SIGNALING_PATHWAY	63	0.4115	1.5664	0.0235	0.1222
		46	69	76	91
COLINA_TARGETS_OF_4EBP1_AND_4EBP2	346	0.3394	1.5650	0.0079	0.1227
		31	24	21	94
FARMER_BREAST_CANCER_APOCRINE_VS_BASAL	313	0.3389	1.5614	0.0190	0.1252
		23	28	48	37
STEIN_ESRRA_TARGETS_RESPONSIVE_TO_ESTROGEN_UP	29	0.4655	1.5593	0.0345	0.1267
		3	49	53	19
YAO_TEMPORAL_RESPONSE_TO_PROGESTERONE_CLUSTER_9	70	0.4232	1.5554	0.0364	0.1291

		18	88	37	51
PID_MYC_PATHWAY	25	0.4963	1.5545	0.0400	0.1297
		31	05	8	79
DARWICHE_PAPILLOMA_RISK_LOW_UP	143	0.3534	1.5511	0.0140	0.1317
		92	85	85	87
LI_CYTIDINE_ANALOG_PATHWAY	15	0.5370	1.5500	0.0453	0.1324
		01	85	65	65
GENTILE_UV_RESPONSE_CLUSTER_D5	37	0.4398	1.5493	0.0273	0.1328
		85	88	97	24
KEGG_BASAL_TRANSCRIPTION_FACTORS	34	0.4824	1.5464	0.0464	0.1347
		17	6	22	57
WANG_LMO4_TARGETS_UP	329	0.3331	1.5446	0.0229	0.1356
		54	99	89	16
TERAO_AOX4_TARGETS_SKIN_UP	35	0.4433	1.5439	0.0334	0.1357
		71	84	65	74
HAHTOLA_MYCOSIS_FUNGOIDES_SKIN_UP	173	0.3647	1.5413	0.0346	0.1375
		35	52	23	01
SHEPARD_BMYB_MORPHOLINO_UP	200	0.3191	1.5386	0.0061	0.1387
		2	35	98	96
PID_PI3KCI_AKT_PATHWAY	35	0.4279	1.5369	0.0452	0.1398
		32	1	76	79
BIOCARTA_RHO_PATHWAY	32	0.4712	1.5364	0.0465	0.1401
		62	19	59	02
HOLLMANN_APOPTOSIS_VIA_CD40_DN	239	0.3423	1.5357	0.0421	0.1404
		74	7	69	66
SWEET_KRAS_TARGETS_DN	59	0.4081	1.5335	0.0314	0.1416
		47	73	96	2
GRYDER_PAX3FOXO1_TOP_ENHANCERS	427	0.3247	1.5309	0.0230	0.1434
		65	07	33	34
ZHAN_MULTIPLE_MYELOMA_CD2_DN	45	0.4181	1.5304	0.0311	0.1434
		27	32	2	56
SCHAEFFER_PROSTATE_DEVELOPMENT_6HR_DN	482	0.3183	1.5306	0.0196	0.1434

		92	27	85	78
GROSS_HYPOXIA_VIA_ELK3_AND_HIF1A_DN	100	0.3573	1.5289	0.0242	0.1442
		33	66	42	36
YAGI_AML_RELAPSE_PROGNOSIS	34	0.4424	1.5259	0.0281	0.1459
		63	19	69	39
LABBE_WNT3A_TARGETS_UP	108	0.3648	1.5219	0.0294	0.1486
		43	78	12	85
GUO_TARGETS_OF_IRS1_AND_IRS2	92	0.3718	1.5186	0.0320	0.1503
		53	62	64	25
DARWICHE_SKIN_TUMOR_PROMOTER_UP	124	0.3694	1.5181	0.0289	0.1503
		68	83	26	35
FARMER_BREAST_CANCER_BASAL_VS_LULMINAL	317	0.3242	1.5182	0.0172	0.1505
		87	36	74	
PID_FOXO_PATHWAY	49	0.4129	1.5165	0.0469	0.1511
		02	95	92	48
KEGG_P53_SIGNALING_PATHWAY	66	0.4055	1.5156	0.0355	0.1517
		59	87	73	3
SYED ESTRADIOL_RESPONSE	19	0.4569	1.5115	0.0419	0.1542
		58	09	85	65
AIYAR_COBRA1_TARGETS_UP	38	0.4124	1.5065	0.0399	0.1578
		97	05	24	18
JIANG_HYPOXIA_NORMAL	294	0.3291	1.5058	0.0273	0.1582
		16	82	97	01
MORI_SMALL_PRE_BII_LYMPHOCYTE_DN	74	0.3786	1.5031	0.0391	0.1598
		3	33	75	28
WAKABAYASHI_ADIPOGENESIS_PPARG_RXRA_BOUND_WITH_H4K20ME1_MARK	132	0.3572	1.5031	0.0440	0.1600
		83	88	88	09
PID_CDC42_PATHWAY	69	0.3884	1.4931	0.0484	0.1668
		99	35	5	96
GENTILE_UV_RESPONSE_CLUSTER_D7	36	0.4132	1.4905	0.0486	0.1683
		92	35	82	35
ENK_UV_RESPONSE_EPIDERMIS_UP	277	0.3508	1.4838	0.0482	0.1737

		83	93	9	34
LINSLEY_MIR16_TARGETS	190	0.3339	1.4822	0.0355	0.1744
		86	21	73	35
LIU_COMMON_CANCER_GENES	67	0.3662	1.4810	0.0300	0.1750
		12	51	6	94
UEDA_PERIFERAL_CLOCK	161	0.3244	1.4786	0.0321	0.1763
		41	95	29	57
AMUNDSON_GENOTOXIC_SIGNATURE	98	0.3470	1.4760	0.0333	0.1773
		22	36	99	71
DITTMER_PTHLH_TARGETS_DN	72	0.3547	1.4685	0.0418	0.1834
		18	04	25	84
CREIGHTON_ENDOCRINE_THERAPY_RESISTANCE_4	278	0.2898	1.4627	0.0039	0.1871
		04	83	6	38
ZHAN_MULTIPLE_MYELOMA_UP	60	0.3755	1.4620	0.0427	0.1873
		87	04	7	99
SERVITJA_LIVER_HNF1A_TARGETS_UP	132	0.3392	1.4593	0.0444	0.1885
		98	31	87	87
WALLACE_PROSTATE_CANCER_RACE_DN	74	0.3706	1.4595	0.0441	0.1888
		89	82	77	43
REACTOME_DIABETES_PATHWAYS	121	0.3408	1.4403	0.0366	0.2020
		34	72	8	25
CREIGHTON_ENDOCRINE_THERAPY_RESISTANCE_1	482	0.2972	1.4367	0.0319	0.2050
		32	18	36	6
LIANG_HEMATOPOIESIS_STEM_CELL_NUMBER_LARGE_VS_TINY_DN	40	0.3820	1.4351	0.0408	0.2061
		27	96	16	87
BOYLAN_MULTIPLE_MYELOMA_C_D_UP	129	0.3265	1.4231	0.0485	0.2150
		25	19	83	34
KIM_WT1_TARGETS_8HR_DN	114	0.3147	1.4213	0.016	0.2164
		63	5		34
PURBEY_TARGETS_OF_CTBP1_AND_SATB1_DN	172	0.3099	1.4065	0.0464	0.2272
		53	47	65	85