

Table S18. GBM modules with enriched GO terms.

Module ID	m	k	x	Gene Ontology	p-value	Genes	p-value
2	234	98	15	Dna Metabolic Process	5.93E-10	TOP2A, RAD51, CDT1, POLQ, EXO1, MSH5, RAD54L, KPNA2, CHEK1, BRCA1, MCM2, HMGB2, CDC6, MCM3, MCM7	3.77E-08
2	118	98	7	Dna Repair	4.81E-05	RAD51, POLQ, EXO1, MSH5, RAD54L, BRCA1, HMGB2	1.17E-03
2	19	98	7	Mitotic Cell Cycle Checkpoint	8.83E-11	TTK, BUB1, KNTC1, BUB1B, ZWINT, CCNA2, MAD2L1	6.07E-09
2	13	98	3	Cytokinesis	1.41E-04	RACGAP1, PRC1, BIRC5	3.32E-03
2	20	98	3	Meiosis I	5.39E-04	RAD51, MSH5, CHEK1	1.03E-02
2	177	98	10	Response To Endogenous Stimulus	1.67E-06	RAD51, POLQ, EXO1, MSH5, RAD54L, CHEK1, CCNA2, BRCA1, HMGB2, MCM7	4.93E-05
2	99	98	26	M Phase	0.00E+00	NDC80, CENPE, KIF2C, TTK, ESPL1, KIF15, KIF11, NCAPH, AURKA, BUB1, RAD51, KNTC1, MSH5, DDX11, RAD54L, BUB1B, KPNA2, PLK1, ZWINT, CHEK1, TPX2, CCNA2, NEK2, CDC25C, MAD2L1, BIRC5	0.00E+00
2	74	98	8	Microtubule Based Process	1.40E-07	KIF2C, TTK, KIF11, KIF23, KIF4A, KPNA2, PRC1, TUBG1	5.48E-06
2	20	98	4	Dna Integrity Checkpoint	1.81E-05	CDT1, CHEK1, CCNA2, CDC6	4.52E-04
2	33	98	10	Regulation Of Mitosis	1.65E-14	TTK, BUB1, KNTC1, BUB1B, ZWINT, CCNA2, NEK2, CDC25C, MAD2L1, BIRC5	1.52E-12
2	31	98	6	Microtubule Cytoskeleton Organization And Biogenesis	1.55E-07	KIF2C, TTK, KIF11, KIF23, PRC1, TUBG1	5.83E-06
2	63	98	7	Interphase	7.26E-07	CENPF, CDC7, DDX11, KPNA2, CDC6, CDC25C, BIRC5	2.22E-05
2	170	98	34	Cell Cycle Process	0.00E+00	NDC80, CENPE, CENPF, KIF2C, TTK, ESPL1, KIF15, KIF11, NCAPH, AURKA, RACGAP1, BUB1, FBXO5, KIF23, RAD51, KNTC1, CDC7, MSH5, DDX11, RAD54L, BUB1B, KPNA2, PLK1, ZWINT, CHEK1, TPX2, CCNA2, PRC1, NEK2, CDC6, CDC25C, TUBG1, MAD2L1, BIRC5	0.00E+00
2	15	98	6	Mitotic Sister Chromatid Segregation	1.17E-09	NDC80, CENPE, ESPL1, NCAPH, DDX11, ZWINT	6.92E-08
2	39	98	4	Regulation Of Dna Metabolic Process	2.73E-04	RAD51, CDT1, KPNA2, CDC6	5.77E-03
2	32	98	5	Meiotic Cell Cycle	5.45E-06	RAD51, MSH5, RAD54L, CHEK1, TUBG1	1.50E-04

2	134	98	28	Mitotic Cell Cycle	0.00E+00	NDC80, CENPE, CENPF, KIF2C, TTK, ESPL1, KIF15, KIF11, NCAPH, AURKA, BUB1, FBXO5, KIF23, KNTC1, CDC7, DDX11, BUB1B, KPNA2, PLK1, ZWINT, TPX2, CCNA2, PRC1, NEK2, CDC6, CDC25C, MAD2L1, BIRC5	0.00E+00
2	134	98	28	Mitotic Cell Cycle	0.00E+00	NDC80, CENPE, CENPF, KIF2C, TTK, ESPL1, KIF15, KIF11, NCAPH, AURKA, BUB1, FBXO5, KIF23, KNTC1, CDC7, DDX11, BUB1B, KPNA2, PLK1, ZWINT, TPX2, CCNA2, PRC1, NEK2, CDC6, CDC25C, MAD2L1, BIRC5	0.00E+00
2	153	98	29	Cell Cycle Phase	0.00E+00	NDC80, CENPE, CENPF, KIF2C, TTK, ESPL1, KIF15, KIF11, NCAPH, AURKA, BUB1, RAD51, KNTC1, CDC7, MSH5, DDX11, RAD54L, BUB1B, KPNA2, PLK1, ZWINT, CHEK1, TPX2, CCNA2, NEK2, CDC6, CDC25C, MAD2L1, BIRC5	0.00E+00
2	43	98	11	Cell Cycle Checkpoint Go 0000075	5.66E-15	TTK, BUB1, KNTC1, CDT1, BUB1B, ZWINT, CHEK1, CCNA2, CDC6, MAD2L1, BIRC5	5.84E-13
2	15	98	3	Dna Replication Initiation	2.22E-04	CDT1, CDC6, MCM3	4.81E-03
2	28	98	9	Chromosome Segregation	6.18E-13	NDC80, CENPE, CENPF, TOP2A, ESPL1, NCAPH, DDX11, ZWINT, BRCA1	5.10E-11
2	15	98	3	Establishment Of Organelle Localization	2.22E-04	CENPE, CENPF, BIRC5	4.81E-03
2	15	98	3	Cell Division	2.22E-04	RACGAP1, PRC1, BIRC5	4.81E-03
2	19	98	4	Regulation Of Mitotic Cell Cycle	1.46E-05	FBXO5, CDC6, CDC25C, BIRC5	3.87E-04
2	93	98	9	Dna Replication	5.90E-08	RAD51, CDT1, EXO1, MSH5, MCM2, HMGB2, CDC6, MCM3, MCM7	2.44E-06
2	31	98	3	Dna Damage Responsesignal Transduction	1.99E-03	CHEK1, CCNA2, BRCA1	3.65E-02
2	44	98	7	Dna Recombination	5.70E-08	RAD51, EXO1, MSH5, RAD54L, KPNA2, CHEK1, BRCA1	2.44E-06
2	8	98	4	Mitotic Spindle Organization And Biogenesis	2.82E-07	TTK, KIF11, KIF23, PRC1	9.68E-06
2	17	98	3	Meiotic Recombination	3.27E-04	RAD51, MSH5, CHEK1	6.75E-03
2	70	98	21	Mitosis	0.00E+00	NDC80, CENPE, KIF2C, TTK, ESPL1, KIF15, KIF11, NCAPH, AURKA, BUB1, KNTC1, DDX11, BUB1B, PLK1, ZWINT, TPX2, CCNA2, NEK2, CDC25C, MAD2L1, BIRC5	0.00E+00

2	276	98	37	Cell Cycle Go 0007049	0.00E+00	NDC80, CENPE, CENPF, KIF2C, TTK, ESPL1, KIF15, KIF11, NCAPH, AURKA, RACGAP1, BUB1, FBXO5, KIF23, RAD51, KNTC1, CDT1, CDC7, MSH5, DDX11, RAD54L, BUB1B, KPNA2, PLK1, ZWINT, CHEK1, TPX2, CCNA2, MCM2, PRC1, NEK2, CDC6, CDC25C, TUBG1, CDC20, MAD2L1, BIRC5	0.00E+00
2	16	98	6	Sister Chromatid Segregation	1.87E-09	NDC80, CENPE, ESPL1, NCAPH, DDX11, ZWINT	1.03E-07
2	19	98	3	Organelle Localization	4.61E-04	CENPE, CENPF, BIRC5	9.05E-03
2	181	98	9	Cytoskeleton Organization And Biogenesis	1.60E-05	KIF2C, TTK, KIF11, RACGAP1, KIF23, KIF4A, KPNA2, PRC1, TUBG1	4.13E-04
2	105	98	8	Chromosome Organization And Biogenesis	2.10E-06	NDC80, CENPE, TOP2A, ESPL1, NCAPH, DDX11, ZWINT, EZH2	5.98E-05
2	51	98	7	Dna Dependent Dna Replication	1.64E-07	RAD51, CDT1, EXO1, MSH5, HMGB2, CDC6, MCM3	5.90E-06
2	57	98	7	Interphase Of Mitotic Cell Cycle	3.61E-07	CENPF, CDC7, DDX11, KPNA2, CDC6, CDC25C, BIRC5	1.16E-05
2	9	98	5	Spindle Organization And Biogenesis	3.95E-09	TTK, KIF11, KIF23, PRC1, TUBG1	2.04E-07
2	150	98	10	Response To Dna Damage Stimulus	3.65E-07	RAD51, POLQ, EXO1, MSH5, RAD54L, CHEK1, CCNA2, BRCA1, HMGB2, MCM7	1.16E-05
2	157	98	15	Regulation Of Cell Cycle	1.96E-12	TTK, BUB1, FBXO5, KNTC1, CDT1, CDC7, BUB1B, ZWINT, CHEK1, CCNA2, NEK2, CDC6, CDC25C, MAD2L1, BIRC5	1.47E-10
2	72	98	21	M Phase Of Mitotic Cell Cycle	0.00E+00	NDC80, CENPE, KIF2C, TTK, ESPL1, KIF15, KIF11, NCAPH, AURKA, BUB1, KNTC1, DDX11, BUB1B, PLK1, ZWINT, TPX2, CCNA2, NEK2, CDC25C, MAD2L1, BIRC5	0.00E+00
3	43	101	5	Cell Cycle Checkpoint Go 0000075	2.81E-05	KNTC1, RAD9A, CHFR, ATM, ATR	1.44E-02
3	74	101	6	Rna Splicing	3.50E-05	PRPF3, SRRM1, PPIG, PRPF4B, TRA2A, SFRS2IP	1.44E-02
3	150	101	7	Response To Dna Damage Stimulus	2.62E-04	LIG1, MSH5, RAD9A, ATM, XRCC2, ATR, BCL6	4.32E-02
4	233	41	9	Defense Response	6.66E-08	CXCL11, NMI, TLR3, CXCL10, APOL3, RSAD2, MX2, HCP5, MX1	5.49E-05
4	63	41	4	Response To Other Organism	5.96E-05	IRF7, IFI44, TLR3, RSAD2	2.46E-02
5	234	56	12	Dna Metabolic Process	5.74E-10	LIG1, CHEK1, NASP, MCM7, FANCC, RAD51, EXO1, XRCC2, CDK2, MCM2, MCM3, TOP2A	5.92E-08
5	118	56	5	Dna Repair	2.13E-04	LIG1, FANCC, RAD51, EXO1, XRCC2	6.05E-03
5	19	56	3	Mitotic Cell Cycle Checkpoint	8.76E-05	KNTC1, TTK, BUB1B	2.72E-03

5	177	56	7	Response To Endogenous Stimulus	1.66E-05	LIG1, CHEK1, MCM7, FANCC, RAD51, EXO1, XRCC2	6.54E-04
5	99	56	14	M Phase	4.66E-15	CENPE, CHEK1, RAD51, XRCC2, KIF2C, NCAPH, TPX2, KIF15, KIF11, NDC80, KNTC1, TTK, PLK1, BUB1B	9.62E-13
5	74	56	6	Microtubule Based Process	1.12E-06	KIF2C, KIF11, PRC1, KIF4A, TTK, KIF23	5.75E-05
5	33	56	3	Regulation Of Mitosis	4.71E-04	KNTC1, TTK, BUB1B	1.21E-02
5	31	56	5	Microtubule Cytoskeleton Organization And Biogenesis	2.81E-07	KIF2C, KIF11, PRC1, TTK, KIF23	1.65E-05
5	170	56	20	Cell Cycle Process	4.97E-14	CENPE, CHEK1, TIMELESS, RAD51, XRCC2, KIF2C, NCAPH, TPX2, CENPF, KIF15, CDK2, KIF11, NDC80, PRC1, KNTC1, TTK, PLK1, FBXO5, BUB1B, KIF23	5.86E-12
5	15	56	3	Mitotic Sister Chromatid Segregation	4.17E-05	CENPE, NCAPH, NDC80	1.56E-03
5	32	56	3	Meiotic Cell Cycle	4.29E-04	CHEK1, RAD51, XRCC2	1.14E-02
5	134	56	16	Mitotic Cell Cycle	0.00E+00	CENPE, KIF2C, NCAPH, TPX2, CENPF, KIF15, CDK2, KIF11, NDC80, PRC1, KNTC1, TTK, PLK1, FBXO5, BUB1B, KIF23	0.00E+00
5	153	56	17	Cell Cycle Phase	1.07E-14	CENPE, CHEK1, TIMELESS, RAD51, XRCC2, KIF2C, NCAPH, TPX2, CENPF, KIF15, CDK2, KIF11, NDC80, KNTC1, TTK, PLK1, BUB1B	1.47E-12
5	43	56	4	Cell Cycle Checkpoint Go 0000075	4.52E-05	CHEK1, KNTC1, TTK, BUB1B	1.62E-03
5	28	56	5	Chromosome Segregation	1.64E-07	CENPE, NCAPH, CENPF, NDC80, TOP2A	1.13E-05
5	93	56	7	Dna Replication	2.22E-07	NASP, MCM7, RAD51, EXO1, CDK2, MCM2, MCM3	1.41E-05
5	44	56	4	Dna Recombination	4.96E-05	LIG1, CHEK1, RAD51, EXO1	1.69E-03
5	8	56	4	Mitotic Spindle Organization And Biogenesis	2.90E-08	KIF11, PRC1, TTK, KIF23	2.39E-06
5	70	56	11	Mitosis	0.00E+00	CENPE, KIF2C, NCAPH, TPX2, KIF15, KIF11, NDC80, KNTC1, TTK, PLK1, BUB1B	0.00E+00
5	276	56	22	Cell Cycle Go 0007049	0.00E+00	CENPE, CHEK1, NASP, TIMELESS, RAD51, XRCC2, KIF2C, NCAPH, TPX2, CENPF, KIF15, CDK2, MCM2, KIF11, NDC80, PRC1, KNTC1, TTK, PLK1, FBXO5, BUB1B, KIF23	0.00E+00
5	16	56	3	Sister Chromatid Segregation	5.11E-05	CENPE, NCAPH, NDC80	1.69E-03
5	181	56	6	Cytoskeleton Organization And Biogenesis	1.85E-04	KIF2C, KIF11, PRC1, KIF4A, TTK, KIF23	5.44E-03
5	105	56	7	Chromosome Organization And Biogenesis	5.11E-07	CENPE, NASP, CHAF1A, NCAPH, NDC80, TOP2A, EZH2	2.81E-05
5	51	56	4	Dna Dependent Dna Replication	8.91E-05	RAD51, EXO1, CDK2, MCM3	2.72E-03

5	27	56	3	Dna Packaging	2.57E-04	CHAF1A, NCAPH, TOP2A	7.08E-03
5	9	56	4	Spindle Organization And Biogenesis	5.19E-08	KIF11, PRC1, TTK, KIF23	3.90E-06
5	150	56	7	Response To Dna Damage Stimulus	5.63E-06	LIG1, CHEK1, MCM7, FANCC, RAD51, EXO1, XRCC2	2.58E-04
5	157	56	7	Regulation Of Cell Cycle	7.60E-06	CHEK1, TIMELESS, CDK2, KNTC1, TTK, FBXO5, BUB1B	3.14E-04
5	72	56	11	M Phase Of Mitotic Cell Cycle	8.10E-15	CENPE, KIF2C, NCAPH, TPX2, KIF15, KIF11, NDC80, KNTC1, TTK, PLK1, BUB1B	1.34E-12
6	146	23	4	Synaptic Transmission	1.53E-04	GRM3, MBP, NPY, PLP1	4.22E-02
6	16	23	3	Regulation Of Action Potential	3.35E-06	MAL, MBP, PLP1	2.77E-03
6	159	23	5	Transmission Of Nerve Impulse	1.05E-05	GRM3, MAL, MBP, NPY, PLP1	4.32E-03
7	99	43	7	M Phase	5.18E-08	BIRC5, MAD2L1, AURKA, BUB1B, RAD54B, NCAPH, NDC80	1.16E-05
7	33	43	3	Regulation Of Mitosis	2.15E-04	BIRC5, MAD2L1, BUB1B	2.21E-02
7	170	43	9	Cell Cycle Process	6.73E-09	BIRC5, MAD2L1, DBF4, AURKA, BUB1B, RACGAP1, RAD54B, NCAPH, NDC80	2.78E-06
7	134	43	7	Mitotic Cell Cycle	4.17E-07	BIRC5, MAD2L1, DBF4, AURKA, BUB1B, NCAPH, NDC80	4.91E-05
7	153	43	8	Cell Cycle Phase	5.62E-08	BIRC5, MAD2L1, DBF4, AURKA, BUB1B, RAD54B, NCAPH, NDC80	1.16E-05
7	43	43	3	Cell Cycle Checkpoint Go 0000075	4.74E-04	BIRC5, MAD2L1, BUB1B	4.34E-02
7	70	43	6	Mitosis	1.60E-07	BIRC5, MAD2L1, AURKA, BUB1B, NCAPH, NDC80	2.60E-05
7	276	43	11	Cell Cycle Go 0007049	2.26E-09	DTYMK, BIRC5, MAD2L1, DBF4, AURKA, GMNN, BUB1B, RACGAP1, RAD54B, NCAPH, NDC80	1.86E-06
7	72	43	6	M Phase Of Mitotic Cell Cycle	1.89E-07	BIRC5, MAD2L1, AURKA, BUB1B, NCAPH, NDC80	2.60E-05
8	233	73	12	Defense Response	1.35E-08	PTX3, IL32, CCL20, STAB1, TCIRG1, HP, CCR5, NCF1, WAS, CEBPB, CCR1, PTPRC	2.78E-06
8	128	73	7	Behavior	1.18E-05	CXCL5, CCL20, RNASE2, CCR5, PLAUR, SYK, CCL2	1.22E-03
8	80	73	7	Locomotory Behavior	5.01E-07	CXCL5, CCL20, RNASE2, CCR5, PLAUR, SYK, CCL2	6.89E-05
8	113	73	5	Inflammatory Response	6.02E-04	PTX3, CCL20, CCR5, CEBPB, CCR1	2.61E-02
8	88	73	6	Cellular Cation Homeostasis	1.47E-05	STC1, CP, CCR5, CCR1, CCL2, PTPRC	1.35E-03
8	261	73	11	Response To Chemical Stimulus	4.36E-07	SOD2, CXCL5, STC1, CCL20, RNASE2, HSPA6, CCR5, PLAUR, SYK, CCL2, LYN	6.89E-05
8	207	73	12	Immune Response	3.55E-09	TREM1, IL32, IL1R2, CCL20, CCR5, IL4R, FCGR2B, WAS, CEBPB, CCR1, CCL2, PTPRC	1.46E-06
8	172	73	8	Homeostatic Process	8.98E-06	STC1, CP, CCR5, SPI1, CCR1, CCL2, LYN, PTPRC	1.06E-03

8	115	73	6	Cellular Homeostasis	6.73E-05	STC1, CP, CCR5, CCR1, CCL2, PTPRC	4.02E-03
8	290	73	15	Immune System Process	1.54E-10	TREMI, IL32, IL1R2, CCL20, CCR5, IL4R, FCGR2B, WAS, CEBPB, SPI1, SYK, CCR1, CCL2, LYN, PTPRC	1.27E-07
8	269	73	13	Response To External Stimulus	6.74E-09	PTX3, CXCL5, STC1, CCL20, RNASE2, THBD, CCR5, PLAUR, WAS, CEBPB, SYK, CCR1, CCL2	1.85E-06
8	130	73	6	Chemical Homeostasis	1.33E-04	STC1, CP, CCR5, CCR1, CCL2, PTPRC	7.30E-03
8	107	73	6	Ion Homeostasis	4.49E-05	STC1, CP, CCR5, CCR1, CCL2, PTPRC	3.17E-03
8	91	73	6	Cation Homeostasis	1.79E-05	STC1, CP, CCR5, CCR1, CCL2, PTPRC	1.47E-03
8	168	73	7	Response To Wounding	6.82E-05	PTX3, CCL20, THBD, CCR5, WAS, CEBPB, CCR1	4.02E-03
10	234	73	10	Dna Metabolic Process	1.35E-06	CHEK1, ORC2L, CDK2, CDT1, POLQ, MSH6, FEN1, MCM3, FANCG, MCM2	8.55E-05
10	19	73	4	Mitotic Cell Cycle Checkpoint	4.50E-06	KNTC1, BUB1B, ZWINT, CCNA2	2.32E-04
10	177	73	7	Response To Endogenous Stimulus	9.48E-05	CHEK1, POLQ, MSH6, FEN1, FANCG, CCNA2, LYN	3.40E-03
10	99	73	10	M Phase	3.59E-10	CHEK1, PLK1, KNTC1, BUB1B, NDC80, TPX2, ZWINT, KIF2C, CCNA2, AURKA	4.30E-08
10	20	73	3	Dna Integrity Checkpoint	2.26E-04	CHEK1, CDT1, CCNA2	7.78E-03
10	33	73	4	Regulation Of Mitosis	4.45E-05	KNTC1, BUB1B, ZWINT, CCNA2	1.93E-03
10	170	73	13	Cell Cycle Process	2.30E-11	CHEK1, CDK2, PLK1, KNTC1, BUB1B, SKP2, NDC80, TPX2, ZWINT, KIF2C, CCNA2, AURKA, CDKN3	4.75E-09
10	134	73	12	Mitotic Cell Cycle	2.25E-11	CDK2, PLK1, KNTC1, BUB1B, SKP2, NDC80, TPX2, ZWINT, KIF2C, CCNA2, AURKA, CDKN3	4.75E-09
10	153	73	13	Cell Cycle Phase	5.93E-12	CHEK1, CDK2, PLK1, KNTC1, BUB1B, SKP2, NDC80, TPX2, ZWINT, KIF2C, CCNA2, AURKA, CDKN3	2.52E-09
10	43	73	7	Cell Cycle Checkpoint Go 0000075	6.07E-09	CHEK1, KNTC1, CDT1, BUB1B, ZWINT, FANCG, CCNA2	5.01E-07
10	15	73	3	Dna Replication Initiation	9.23E-05	ORC2L, CDT1, MCM3	3.40E-03
10	28	73	3	Chromosome Segregation	6.28E-04	NDC80, SRPK1, ZWINT	1.92E-02
10	138	73	8	Rna Processing	1.74E-06	NONO, NCBP1, SFRS1, NUDT21, CSTF2, SRPK1, SFRS2, CPSF6	1.03E-04
10	61	73	8	Mrna Processing Go 0006397	2.80E-09	NONO, NCBP1, SFRS1, NUDT21, CSTF2, SRPK1, SFRS2, CPSF6	2.57E-07
10	93	73	6	Dna Replication	2.02E-05	ORC2L, CDK2, CDT1, MSH6, MCM3, MCM2	9.28E-04

10	70	73	9	Mitosis	3.22E-10	PLK1, KNTC1, BUB1B, NDC80, TPX2, ZWINT, KIF2C, CCNA2, AURKA	4.30E-08
10	276	73	16	Cell Cycle Go 0007049	6.10E-12	CHEK1, CDK2, PLK1, KNTC1, CDT1, BUB1B, SKP2, NDC80, TPX2, ZWINT, FANCG, KIF2C, CCNA2, AURKA, CDKN3, MCM2	2.52E-09
10	71	73	9	Mrna Metabolic Process	3.67E-10	NONO, NCBP1, SFRS1, NUDT21, CSTF2, UPF2, SRPK1, SFRS2, CPSF6	4.30E-08
10	74	73	5	Rna Splicing	8.29E-05	NONO, NCBP1, SFRS1, SRPK1, SFRS2	3.26E-03
10	51	73	5	Dna Dependent Dna Replication	1.35E-05	ORC2L, CDK2, CDT1, MSH6, MCM3	6.54E-04
10	150	73	6	Response To Dna Damage Stimulus	2.89E-04	CHEK1, POLQ, MSH6, FEN1, FANCG, CCNA2	9.55E-03
10	157	73	9	Regulation Of Cell Cycle	4.12E-07	CHEK1, CDK2, KNTC1, CDT1, BUB1B, ZWINT, FANCG, CCNA2, CDKN3	2.83E-05
10	72	73	9	M Phase Of Mitotic Cell Cycle	4.17E-10	PLK1, KNTC1, BUB1B, NDC80, TPX2, ZWINT, KIF2C, CCNA2, AURKA	4.30E-08
11	95	89	6	Positive Regulation Of Signal Transduction	7.05E-05	TNFRSF10B, CFLAR, TNFRSF1A, TICAM1, MYD88, FLNA	6.47E-03
11	128	89	6	Enzyme Linked Receptor Protein Signaling Pathway	3.62E-04	SHC1, PXN, PTK2B, FGFR4, ERBB2, CBLC	2.30E-02
11	87	89	6	I Kappab Kinase Nf Kappab Cascade	4.30E-05	TNFRSF10B, CFLAR, TNFRSF1A, TICAM1, MYD88, FLNA	5.06E-03
11	170	89	9	Regulation Of Signal Transduction	4.35E-06	RGS4, SHC1, TNFRSF10B, CFLAR, TNFRSF1A, TICAM1, MYD88, CBLC, FLNA	1.87E-03
11	66	89	6	Positive Regulation Of I Kappab Kinase Nf Kappab Cascade	8.75E-06	TNFRSF10B, CFLAR, TNFRSF1A, TICAM1, MYD88, FLNA	1.87E-03
11	236	89	10	Protein Kinase Cascade	9.06E-06	RGS4, SHC1, TNFRSF10B, NMI, CFLAR, FGF2, TNFRSF1A, TICAM1, MYD88, FLNA	1.87E-03
11	57	89	4	Regulation Of Map Kinase Activity	8.17E-04	RGS4, SHC1, FGF2, ERBB2	4.81E-02
11	269	89	9	Response To External Stimulus	1.62E-04	ITGA2, NMI, F11R, AHSG, FGF2, TNFRSF1A, MAPK1, PTX3, CDKN1A	1.21E-02
11	77	89	6	Transmembrane Receptor Protein Tyrosine Kinase Signaling Pathway	2.14E-05	SHC1, PXN, PTK2B, FGFR4, ERBB2, CBLC	2.94E-03
11	71	89	6	Regulation Of I Kappab Kinase Nf Kappab Cascade	1.34E-05	TNFRSF10B, CFLAR, TNFRSF1A, TICAM1, MYD88, FLNA	2.21E-03
12	81	47	6	Cell Migration	6.62E-07	LAMC1, ENPEP, LAMB1, ITGB1, MYH9, CD34	1.82E-04
13	20	91	3	Meiosis I	4.34E-04	LIG3, RAD1, RAD51	4.47E-02
13	99	91	9	M Phase	5.33E-08	LIG3, PIN1, RAD1, NDC80, NEK2, RAD51, KIF11, BUB1, NCAPH	2.20E-05

13	170	91	12	Cell Cycle Process	5.10E-09	LIG3, PIN1, FBXO5, RAD1, RACGAP1, NDC80, NEK2, RAD51, KIF23, KIF11, BUB1, NCAPH	4.21E-06
13	134	91	8	Mitotic Cell Cycle	7.46E-06	PIN1, FBXO5, NDC80, NEK2, KIF23, KIF11, BUB1, NCAPH	1.23E-03
13	153	91	9	Cell Cycle Phase	2.20E-06	LIG3, PIN1, RAD1, NDC80, NEK2, RAD51, KIF11, BUB1, NCAPH	4.54E-04
13	70	91	6	Mitosis	1.40E-05	PIN1, NDC80, NEK2, KIF11, BUB1, NCAPH	1.93E-03
13	276	91	13	Cell Cycle Go 0007049	1.41E-07	LIG3, PIN1, FBXO5, RAD1, RACGAP1, GPS1, NDC80, NEK2, RAD51, KIF23, KIF11, BUB1, NCAPH	3.88E-05
13	72	91	6	M Phase Of Mitotic Cell Cycle	1.65E-05	PIN1, NDC80, NEK2, KIF11, BUB1, NCAPH	1.95E-03
14	124	65	6	Positive Regulation Of Cell Proliferation	5.31E-05	VEGFA, NRP1, LAMC1, TIMP1, LAMB1, ANG	3.02E-02
14	81	65	5	Cell Migration	7.32E-05	NRP1, LAMC1, NRP2, LAMB1, ANG	3.02E-02
16	234	93	15	Dna Metabolic Process	2.77E-10	CDC6, CHEK1, RAD51, CDT1, POLQ, EXO1, RAD54L, BRCA2, LIG3, BRCA1, ORC1L, POLG2, POLD1, CDK2, FEN1	2.28E-08
16	118	93	9	Dna Repair	2.96E-07	RAD51, POLQ, EXO1, RAD54L, BRCA2, LIG3, BRCA1, POLD1, FEN1	1.22E-05
16	19	93	5	Mitotic Cell Cycle Checkpoint	2.63E-07	CCNA2, BUB1, BUB1B, TTK, KNTC1	1.14E-05
16	20	93	3	Meiosis I	4.62E-04	CHEK1, RAD51, LIG3	8.87E-03
16	18	93	3	Regulation Of Dna Replication	3.35E-04	CDC6, CDT1, CDK2	6.73E-03
16	177	93	12	Response To Endogenous Stimulus	1.04E-08	CCNA2, CHEK1, CHEK2, RAD51, POLQ, EXO1, RAD54L, BRCA2, LIG3, BRCA1, POLD1, FEN1	6.11E-07
16	99	93	22	M Phase	0.00E+00	CCNA2, KIF2C, ESPL1, NEK2, CHEK1, NCAPH, AURKA, BUB1, PLK1, RAD51, BUB1B, DDX11, RAD54L, LIG3, CDC25C, NDC80, KIF11, KIF15, TTK, KNTC1, TPX2, CENPE	0.00E+00
16	74	93	4	Microtubule Based Process	2.54E-03	KIF2C, KIF23, KIF11, TTK	4.28E-02
16	20	93	5	Dna Integrity Checkpoint	3.49E-07	CCNA2, CDC6, CHEK1, CHEK2, CDT1	1.37E-05
16	33	93	7	Regulation Of Mitosis	4.73E-09	CCNA2, NEK2, BUB1, BUB1B, CDC25C, TTK, KNTC1	3.25E-07
16	31	93	4	Microtubule Cytoskeleton Organization And Biogenesis	8.94E-05	KIF2C, KIF23, KIF11, TTK	2.38E-03
16	63	93	6	Interphase	8.60E-06	CDC6, DDX11, SKP2, CDC25C, POLD1, CDK2	2.84E-04

16	170	93	28	Cell Cycle Process	1.71E-14	CCNA2, KIF2C, ESPL1, NEK2, CDC6, CHEK1, NCAPH, AURKA, BUB1, KIF23, PLK1, RAD51, BUB1B, DDX11, RAD54L, BRCA2, LIG3, SKP2, CDC25C, POLD1, NDC80, KIF11, KIF15, TTK, KNTC1, CDK2, TPX2, CENPE	3.57E-12
16	15	93	5	Mitotic Sister Chromatid Segregation	6.96E-08	ESPL1, NCAPH, DDX11, NDC80, CENPE	3.59E-06
16	39	93	4	Regulation Of Dna Metabolic Process	2.23E-04	CDC6, RAD51, CDT1, CDK2	4.84E-03
16	32	93	4	Meiotic Cell Cycle	1.02E-04	CHEK1, RAD51, RAD54L, LIG3	2.62E-03
16	134	93	23	Mitotic Cell Cycle	4.22E-14	CCNA2, KIF2C, ESPL1, NEK2, CDC6, NCAPH, AURKA, BUB1, KIF23, PLK1, BUB1B, DDX11, SKP2, CDC25C, POLD1, NDC80, KIF11, KIF15, TTK, KNTC1, CDK2, TPX2, CENPE	6.96E-12
16	153	93	26	Cell Cycle Phase	1.73E-14	CCNA2, KIF2C, ESPL1, NEK2, CDC6, CHEK1, NCAPH, AURKA, BUB1, PLK1, RAD51, BUB1B, DDX11, RAD54L, LIG3, SKP2, CDC25C, POLD1, NDC80, KIF11, KIF15, TTK, KNTC1, CDK2, TPX2, CENPE	3.57E-12
16	43	93	9	Cell Cycle Checkpoint Go 0000075	3.00E-11	CCNA2, CDC6, CHEK1, BUB1, CHEK2, CDT1, BUB1B, TTK, KNTC1	3.10E-09
16	15	93	3	Dna Replication Initiation	1.90E-04	CDC6, CDT1, ORC1L	4.35E-03
16	28	93	6	Chromosome Segregation	5.92E-08	ESPL1, NCAPH, DDX11, BRCA1, NDC80, CENPE	3.26E-06
16	13	93	3	G1 Phase Of Mitotic Cell Cycle	1.21E-04	CDC6, CDC25C, CDK2	3.01E-03
16	19	93	3	Regulation Of Mitotic Cell Cycle	3.95E-04	CDC6, CDC25C, CDK2	7.76E-03
16	93	93	8	Dna Replication	5.55E-07	CDC6, RAD51, CDT1, EXO1, ORC1L, POLG2, POLD1, CDK2	2.08E-05
16	31	93	4	Dna Damage Responsesignal Transduction	8.94E-05	CCNA2, CHEK1, CHEK2, BRCA1	2.38E-03
16	17	93	3	Dna Damage Checkpoint	2.80E-04	CCNA2, CHEK1, CHEK2	5.78E-03
16	39	93	4	Regulation Of Cyclin Dependent Protein Kinase Activity	2.23E-04	CDC6, CHEK1, CDC25C, CDC25A	4.84E-03
16	21	93	3	Double Strand Break Repair	5.36E-04	RAD51, BRCA1, FEN1	1.01E-02
16	44	93	6	Dna Recombination	1.00E-06	CHEK1, RAD51, EXO1, RAD54L, LIG3, BRCA1	3.60E-05
16	15	93	3	G1 Phase	1.90E-04	CDC6, CDC25C, CDK2	4.35E-03
16	8	93	3	Mitotic Spindle Organization And Biogenesis	2.43E-05	KIF23, KIF11, TTK	7.71E-04
16	17	93	3	Meiotic Recombination	2.80E-04	CHEK1, RAD51, LIG3	5.78E-03

16	70	93	18	Mitosis	1.13E-14	CCNA2, KIF2C, ESPL1, NEK2, NCAPH, AURKA, BUB1, PLK1, BUB1B, DDX11, CDC25C, NDC80, KIF11, KIF15, TTK, KNTC1, TPX2, CENPE	3.57E-12
16	276	93	32	Cell Cycle Go 0007049	9.88E-14	CCNA2, KIF2C, ESPL1, NEK2, CDC6, CHEK1, NCAPH, AURKA, BUB1, KIF23, CHEK2, PLK1, RAD51, CDT1, BUB1B, DDX11, RAD54L, BRCA2, LIG3, SKP2, CDC25C, POLD1, NDC80, KIF11, KIF15, TTK, KNTC1, CDK2, TPX2, CDC20, CDC25A, CENPE	1.16E-11
16	16	93	5	Sister Chromatid Segregation	1.01E-07	ESPL1, NCAPH, DDX11, NDC80, CENPE	4.89E-06
16	105	93	5	Chromosome Organization And Biogenesis	1.30E-03	ESPL1, NCAPH, DDX11, NDC80, CENPE	2.32E-02
16	51	93	7	Dna Dependent Dna Replication	1.14E-07	CDC6, RAD51, CDT1, EXO1, ORC1L, POLG2, CDK2	5.25E-06
16	57	93	6	Interphase Of Mitotic Cell Cycle	4.77E-06	CDC6, DDX11, SKP2, CDC25C, POLD1, CDK2	1.64E-04
16	9	93	3	Spindle Organization And Biogenesis	3.62E-05	KIF23, KIF11, TTK	1.11E-03
16	150	93	12	Response To Dna Damage Stimulus	1.57E-09	CCNA2, CHEK1, CHEK2, RAD51, POLQ, EXO1, RAD54L, BRCA2, LIG3, BRCA1, POLD1, FEN1	1.18E-07
16	157	93	13	Regulation Of Cell Cycle	2.02E-10	CCNA2, NEK2, CDC6, CHEK1, BUB1, CHEK2, CDT1, BUB1B, CDC25C, TTK, KNTC1, CDK2, CDC25A	1.85E-08
16	72	93	18	M Phase Of Mitotic Cell Cycle	6.15E-14	CCNA2, KIF2C, ESPL1, NEK2, NCAPH, AURKA, BUB1, PLK1, BUB1B, DDX11, CDC25C, NDC80, KIF11, KIF15, TTK, KNTC1, TPX2, CENPE	8.46E-12
19	146	48	6	Synaptic Transmission	2.31E-05	SYN1, GAD2, NPY, SYN2, SYT1, RAB3A	6.36E-03
19	23	48	4	Generation Of A Signal Involved In Cell Cell Signaling	1.86E-06	SYT1, RAB3A, SNAP25, STX1A	1.54E-03
19	159	48	6	Transmission Of Nerve Impulse	3.74E-05	SYN1, GAD2, NPY, SYN2, SYT1, RAB3A	7.72E-03
20	146	74	11	Synaptic Transmission	1.24E-09	SYT1, SYN1, CPNE6, DOC2A, SYN2, HTR2A, RAB3A, NPY, BSN, HTR1E, GAD2	1.02E-06
20	23	74	3	Generation Of A Signal Involved In Cell Cell Signaling	3.61E-04	SNAP25, SYT1, RAB3A	4.97E-02
20	159	74	11	Transmission Of Nerve Impulse	3.07E-09	SYT1, SYN1, CPNE6, DOC2A, SYN2, HTR2A, RAB3A, NPY, BSN, HTR1E, GAD2	1.27E-06
21	236	70	8	Protein Kinase Cascade	6.40E-05	ADAM9, FLNA, LGALS1, CXCR4, C5AR1, NMI, SHC1, TNFRSF10B	2.64E-02

21	269	70	9	Response To External Stimulus	2.39E-05	PLAU, PTX3, IL1RAP, SERPINE1, PLAUR, CXCR4, CDKN1A, C5AR1, NMI	1.97E-02
25	26	75	3	Negative Regulation Of Multicellular Organismal Process	5.44E-04	TGFB2, SERPINE1, SRGN	4.48E-02
25	26	75	3	Jak Stat Cascade	5.44E-04	STAT3, SOCS3, HCLS1	4.48E-02
25	207	75	7	Immune Response	2.96E-04	TREM1, LTF, TGFB2, C5AR1, LCP2, FCGR2B, FTH1	4.48E-02
25	290	75	8	Immune System Process	4.28E-04	TREM1, LTF, TGFB2, C5AR1, LCP2, FCGR2B, FTH1, HCLS1	4.48E-02
26	18	119	4	Axon Guidance	2.49E-05	CDK5R1, SLIT1, NRXN1, SIAH1	5.14E-03
26	41	119	5	Neurite Development	4.88E-05	MAPT, CDK5R1, SLIT1, NRXN1, SIAH1	5.76E-03
26	74	119	6	Microtubule Based Process	8.79E-05	MAPT, KIF1B, CLASP2, NLGN1, APC, ARHGEF10L	8.69E-03
26	33	119	5	Axonogenesis	1.65E-05	MAPT, CDK5R1, SLIT1, NRXN1, SIAH1	5.14E-03
26	38	119	5	Cellular Morphogenesis During Differentiation	3.35E-05	MAPT, CDK5R1, SLIT1, NRXN1, SIAH1	5.53E-03
26	65	119	6	Generation Of Neurons	4.21E-05	MAPT, CDK5R1, NLGN1, SLIT1, NRXN1, SIAH1	5.76E-03
26	103	119	6	Regulation Of Cellular Component Organization And Biogenesis	5.38E-04	MAPT, CLASP2, APC, ARHGEF10L, TERF2, EIF4G3	3.17E-02
26	35	119	5	Regulation Of Organelle Organization And Biogenesis	2.22E-05	MAPT, CLASP2, APC, ARHGEF10L, TERF2	5.14E-03
26	70	119	5	Cell Cell Adhesion	6.28E-04	CYFIP2, CDK5R1, NLGN1, CLDN4, COL13A1	3.24E-02
26	75	119	6	Neurogenesis	9.48E-05	MAPT, CDK5R1, NLGN1, SLIT1, NRXN1, SIAH1	8.69E-03
26	26	119	4	Regulation Of Cytoskeleton Organization And Biogenesis	1.15E-04	MAPT, CLASP2, APC, ARHGEF10L	8.75E-03
26	58	119	6	Neuron Differentiation	2.18E-05	MAPT, CDK5R1, NLGN1, SLIT1, NRXN1, SIAH1	5.14E-03
26	49	119	5	Neuron Development	1.17E-04	MAPT, CDK5R1, SLIT1, NRXN1, SIAH1	8.75E-03
26	11	119	3	Microtubule Polymerization Or Depolymerization	1.47E-04	MAPT, CLASP2, APC	1.01E-02
27	19	53	4	Mitotic Cell Cycle Checkpoint	1.23E-06	CCNA2, TTK, MAD2L1, BUB1B	4.63E-05
27	13	53	4	Cytokinesis	2.32E-07	BIRC5, NUSAP1, PRC1, RACGAP1	1.37E-05
27	99	53	15	M Phase	0.00E+00	BIRC5, NDC80, NUSAP1, CENPE, CCNA2, KIF2C, TTK, KIF11, TPX2, AURKA, UBE2C, RAD51, MAD2L1, BUB1B, CDC25C	0.00E+00
27	74	53	7	Microtubule Based Process	3.05E-08	NUSAP1, PRC1, KIF2C, TTK, KIF11, KIF4A, KIF23	2.29E-06
27	33	53	8	Regulation Of Mitosis	9.43E-13	BIRC5, NUSAP1, CCNA2, TTK, UBE2C, MAD2L1, BUB1B, CDC25C	9.73E-11
27	31	53	6	Microtubule Cytoskeleton Organization And Biogenesis	3.67E-09	NUSAP1, PRC1, KIF2C, TTK, KIF11, KIF23	3.37E-07

27	170	53	19	Cell Cycle Process	0.00E+00	BIRC5, NDC80, NUSAP1, CENPE, CENPF, CCNA2, PRC1, KIF2C, TTK, KIF11, TPX2, AURKA, RACGAP1, UBE2C, RAD51, MAD2L1, BUB1B, CDC25C, KIF23	0.00E+00
27	15	53	3	Mitotic Sister Chromatid Segregation	3.53E-05	NDC80, NUSAP1, CENPE	1.27E-03
27	134	53	17	Mitotic Cell Cycle	0.00E+00	BIRC5, NDC80, NUSAP1, CENPE, CENPF, CCNA2, PRC1, KIF2C, TTK, KIF11, TPX2, AURKA, UBE2C, MAD2L1, BUB1B, CDC25C, KIF23	0.00E+00
27	153	53	16	Cell Cycle Phase	0.00E+00	BIRC5, NDC80, NUSAP1, CENPE, CENPF, CCNA2, KIF2C, TTK, KIF11, TPX2, AURKA, UBE2C, RAD51, MAD2L1, BUB1B, CDC25C	0.00E+00
27	43	53	5	Cell Cycle Checkpoint Go 0000075	1.15E-06	BIRC5, CCNA2, TTK, MAD2L1, BUB1B	4.63E-05
27	28	53	5	Chromosome Segregation	1.24E-07	NDC80, NUSAP1, CENPE, CENPF, TOP2A	7.86E-06
27	15	53	4	Establishment Of Organelle Localization	4.40E-07	BIRC5, NUSAP1, CENPE, CENPF	2.14E-05
27	15	53	4	Cell Division	4.40E-07	BIRC5, NUSAP1, PRC1, RACGAP1	2.14E-05
27	8	53	4	Mitotic Spindle Organization And Biogenesis	2.31E-08	PRC1, TTK, KIF11, KIF23	1.91E-06
27	70	53	14	Mitosis	0.00E+00	BIRC5, NDC80, NUSAP1, CENPE, CCNA2, KIF2C, TTK, KIF11, TPX2, AURKA, UBE2C, MAD2L1, BUB1B, CDC25C	0.00E+00
27	276	53	21	Cell Cycle Go 0007049	0.00E+00	BIRC5, NDC80, NUSAP1, CENPE, CENPF, CCNA2, PRC1, KIF2C, TTK, KIF11, TPX2, AURKA, RACGAP1, UBE2C, CDC20, MCM2, RAD51, MAD2L1, BUB1B, CDC25C, KIF23	0.00E+00
27	16	53	3	Sister Chromatid Segregation	4.33E-05	NDC80, NUSAP1, CENPE	1.49E-03
27	19	53	4	Organelle Localization	1.23E-06	BIRC5, NUSAP1, CENPE, CENPF	4.63E-05
27	181	53	8	Cytoskeleton Organization And Biogenesis	1.11E-06	NUSAP1, PRC1, KIF2C, TTK, KIF11, RACGAP1, KIF4A, KIF23	4.63E-05
27	105	53	4	Chromosome Organization And Biogenesis	1.15E-03	NDC80, NUSAP1, CENPE, TOP2A	3.65E-02
27	9	53	4	Spindle Organization And Biogenesis	4.15E-08	PRC1, TTK, KIF11, KIF23	2.85E-06
27	157	53	8	Regulation Of Cell Cycle	3.76E-07	BIRC5, NUSAP1, CCNA2, TTK, UBE2C, MAD2L1, BUB1B, CDC25C	2.07E-05
27	72	53	14	M Phase Of Mitotic Cell Cycle	0.00E+00	BIRC5, NDC80, NUSAP1, CENPE, CCNA2, KIF2C, TTK, KIF11, TPX2, AURKA, UBE2C, MAD2L1, BUB1B, CDC25C	0.00E+00
28	128	55	6	Behavior	2.43E-05	ITGB2, PLAUR, RNASE2, CXCR4, SYK, C5AR1	6.67E-03

28	80	55	6	Locomotory Behavior	1.59E-06	ITGB2, PLAUR, RNASE2, CXCR4, SYK, C5AR1	6.56E-04
28	261	55	7	Response To Chemical Stimulus	1.73E-04	ITGB2, GNAI2, PLAUR, RNASE2, CXCR4, SYK, C5AR1	2.86E-02
28	290	55	8	Immune System Process	4.68E-05	ITGB2, TGFB1, FCGR2B, CXCR4, CTSS, CD4, SYK, C5AR1	9.65E-03
28	269	55	10	Response To External Stimulus	3.16E-07	ITGB2, TGFB1, GNAI2, F13A1, PLAUR, RNASE2, CXCR4, CYBB, SYK, C5AR1	2.60E-04
29	99	30	6	M Phase	1.34E-07	KIF15, BUB1B, KIF2C, NEK2, BIRC5, TTK	1.38E-05
29	33	30	4	Regulation Of Mitosis	1.22E-06	BUB1B, NEK2, BIRC5, TTK	1.00E-04
29	63	30	4	Interphase	1.68E-05	CDC7, CDKN2C, BIRC5, CDKN3	1.16E-03
29	170	30	9	Cell Cycle Process	2.00E-10	CDC7, CDKN2C, KIF15, BUB1B, KIF2C, NEK2, BIRC5, CDKN3, TTK	5.49E-08
29	134	30	9	Mitotic Cell Cycle	2.35E-11	CDC7, CDKN2C, KIF15, BUB1B, KIF2C, NEK2, BIRC5, CDKN3, TTK	1.93E-08
29	153	30	9	Cell Cycle Phase	7.76E-11	CDC7, CDKN2C, KIF15, BUB1B, KIF2C, NEK2, BIRC5, CDKN3, TTK	3.20E-08
29	43	30	3	Cell Cycle Checkpoint Go 0000075	1.61E-04	BUB1B, BIRC5, TTK	9.49E-03
29	70	30	6	Mitosis	1.65E-08	KIF15, BUB1B, KIF2C, NEK2, BIRC5, TTK	2.69E-06
29	276	30	10	Cell Cycle Go 0007049	6.82E-10	CDC7, CDKN2C, KIF15, BUB1B, KIF2C, NEK2, BIRC5, CDKN3, TTK, MCM2	1.41E-07
29	57	30	4	Interphase Of Mitotic Cell Cycle	1.13E-05	CDC7, CDKN2C, BIRC5, CDKN3	8.46E-04
29	157	30	7	Regulation Of Cell Cycle	8.86E-08	CDC7, CDKN2C, BUB1B, NEK2, BIRC5, CDKN3, TTK	1.04E-05
29	72	30	6	M Phase Of Mitotic Cell Cycle	1.96E-08	KIF15, BUB1B, KIF2C, NEK2, BIRC5, TTK	2.69E-06
29	23	30	3	G1 S Transition Of Mitotic Cell Cycle	2.39E-05	CDC7, CDKN2C, CDKN3	1.52E-03
32	46	71	4	Nuclear Import	1.50E-04	TPR, KPNB1, KPNA6, RANBP2	2.18E-02
32	249	71	7	Macromolecular Complex Assembly	6.40E-04	SMARCA5, EIF3B, MED1, EIF3A, EIF4G3, SFRS2IP, NCOA6	4.06E-02
32	34	71	3	Translational Initiation	1.03E-03	EIF3B, EIF3A, EIF4G3	4.73E-02
32	77	71	5	Nuclear Transport	8.78E-05	TPR, KHDRBS1, KPNB1, KPNA6, RANBP2	2.18E-02
32	56	71	4	Protein Import	3.23E-04	TPR, KPNB1, KPNA6, RANBP2	2.67E-02
32	32	71	3	Transcription Initiation	8.62E-04	SMARCA5, MED1, NCOA6	4.58E-02
32	263	71	8	Regulation Of Transcription From Rna Polymerase Ii Promoter	1.51E-04	SMARCA5, DNMT1, CHD4, MED1, NCOA6, CHD1, MAML1, DEK	2.18E-02
32	69	71	4	Ribonucleoprotein Complex Biogenesis And Assembly	7.18E-04	EIF3B, EIF3A, EIF4G3, SFRS2IP	4.23E-02
32	44	71	4	Protein Import Into Nucleus	1.26E-04	TPR, KPNB1, KPNA6, RANBP2	2.18E-02

32	56	71	4	Protein Rna Complex Assembly	3.23E-04	EIF3B, EIF3A, EIF4G3, SFRS2IP	2.67E-02
32	266	71	7	Cellular Component Assembly	9.44E-04	SMARCA5, EIF3B, MED1, EIF3A, EIF4G3, SFRS2IP, NCOA6	4.58E-02
32	201	71	6	Macromolecule Localization	1.17E-03	HNRNPA2B1, TPR, KHDRBS1, KPNB1, KPNA6, RANBP2	4.96E-02
32	77	71	5	Nucleocytoplasmic Transport	8.78E-05	TPR, KHDRBS1, KPNB1, KPNA6, RANBP2	2.18E-02
34	234	27	7	Dna Metabolic Process	6.10E-07	NASP, NOL8, SMC1A, DNMT1, ATF7IP, RFC1, TLK2	5.03E-04
34	105	27	4	Chromosome Organization And Biogenesis	8.21E-05	NASP, SMC1A, RFC1, TLK2	2.26E-02
37	19	48	5	Mitotic Cell Cycle Checkpoint	9.06E-09	BUB1, TTK, CCNA2, BUB1B, MAD2L1	6.79E-07
37	99	48	15	M Phase	1.97E-14	CHEK1, NCAPH, RAD54L, KIF15, BUB1, TTK, KIF2C, CCNA2, BIRC5, NEK2, KIF11, BUB1B, CENPE, MAD2L1, TPX2	2.70E-12
37	74	48	5	Microtubule Based Process	1.07E-05	KIF23, KIF4A, TTK, KIF2C, KIF11	5.17E-04
37	20	48	3	Dna Integrity Checkpoint	6.46E-05	CDC6, CHEK1, CCNA2	2.54E-03
37	33	48	7	Regulation Of Mitosis	4.00E-11	BUB1, TTK, CCNA2, BIRC5, NEK2, BUB1B, MAD2L1	3.67E-09
37	31	48	4	Microtubule Cytoskeleton Organization And Biogenesis	6.46E-06	KIF23, TTK, KIF2C, KIF11	3.33E-04
37	63	48	4	Interphase	1.11E-04	CDC6, CDK2, BIRC5, CENPF	4.00E-03
37	170	48	19	Cell Cycle Process	2.63E-14	CDC6, CHEK1, NCAPH, CDK2, KIF23, RAD54L, KIF15, BUB1, TTK, KIF2C, CCNA2, BIRC5, NEK2, KIF11, CENPF, BUB1B, CENPE, MAD2L1, TPX2	3.10E-12
37	134	48	17	Mitotic Cell Cycle	0.00E+00	CDC6, NCAPH, CDK2, KIF23, KIF15, BUB1, TTK, KIF2C, CCNA2, BIRC5, NEK2, KIF11, CENPF, BUB1B, CENPE, MAD2L1, TPX2	0.00E+00
37	153	48	18	Cell Cycle Phase	0.00E+00	CDC6, CHEK1, NCAPH, CDK2, RAD54L, KIF15, BUB1, TTK, KIF2C, CCNA2, BIRC5, NEK2, KIF11, CENPF, BUB1B, CENPE, MAD2L1, TPX2	0.00E+00
37	43	48	8	Cell Cycle Checkpoint Go 0000075	4.52E-12	CDC6, CHEK1, BUB1, TTK, CCNA2, BIRC5, BUB1B, MAD2L1	4.66E-10
37	28	48	4	Chromosome Segregation	4.24E-06	NCAPH, BRCA1, CENPF, CENPE	2.50E-04
37	15	48	3	Establishment Of Organelle Localization	2.62E-05	BIRC5, CENPF, CENPE	1.20E-03
37	19	48	3	Regulation Of Mitotic Cell Cycle	5.51E-05	CDC6, CDK2, BIRC5	2.27E-03
37	31	48	3	Dna Damage Responsesignal Transduction	2.47E-04	CHEK1, BRCA1, CCNA2	8.15E-03

37	44	48	3	Dna Recombination	7.02E-04	CHEK1, RAD54L, BRCA1	2.23E-02
37	8	48	3	Mitotic Spindle Organization And Biogenesis	3.28E-06	KIF23, TTK, KIF11	2.08E-04
37	70	48	13	Mitosis	0.00E+00	NCAPH, KIF15, BUB1, TTK, KIF2C, CCNA2, BIRC5, NEK2, KIF11, BUB1B, CENPE, MAD2L1, TPX2	0.00E+00
37	276	48	19	Cell Cycle Go 0007049	7.77E-15	CDC6, CHEK1, NCAPH, CDK2, KIF23, RAD54L, KIF15, BUB1, TTK, KIF2C, CCNA2, BIRC5, NEK2, KIF11, CENPF, BUB1B, CENPE, MAD2L1, TPX2	1.28E-12
37	19	48	3	Organelle Localization	5.51E-05	BIRC5, CENPF, CENPE	2.27E-03
37	181	48	5	Cytoskeleton Organization And Biogenesis	7.36E-04	KIF23, KIF4A, TTK, KIF2C, KIF11	2.25E-02
37	57	48	4	Interphase Of Mitotic Cell Cycle	7.52E-05	CDC6, CDK2, BIRC5, CENPF	2.82E-03
37	9	48	3	Spindle Organization And Biogenesis	4.91E-06	KIF23, TTK, KIF11	2.70E-04
37	157	48	10	Regulation Of Cell Cycle	4.55E-10	CDC6, CHEK1, CDK2, BUB1, TTK, CCNA2, BIRC5, NEK2, BUB1B, MAD2L1	3.75E-08
37	72	48	13	M Phase Of Mitotic Cell Cycle	0.00E+00	NCAPH, KIF15, BUB1, TTK, KIF2C, CCNA2, BIRC5, NEK2, KIF11, BUB1B, CENPE, MAD2L1, TPX2	0.00E+00
38	11	52	3	Microtubule Polymerization Or Depolymerization	1.22E-05	MAPT, CLASP2, APC	1.01E-02
39	41	42	3	Neurite Development	3.84E-04	MAPT, NRXN1, CDK5R1	3.96E-02
39	33	42	3	Axonogenesis	2.00E-04	MAPT, NRXN1, CDK5R1	3.30E-02
39	18	42	3	Regulation Of Mapkkk Cascade	3.10E-05	MAPK8IP3, TAOK3, HIPK2	6.40E-03
39	38	42	3	Cellular Morphogenesis During Differentiation	3.06E-04	MAPT, NRXN1, CDK5R1	3.60E-02
39	43	42	4	Jnk Cascade	1.43E-05	MAPK8IP3, TAOK3, MAPK10, HIPK2	4.31E-03
39	12	42	3	Regulation Of Jnk Cascade	8.49E-06	MAPK8IP3, TAOK3, HIPK2	4.31E-03
39	89	42	4	Mapkkk Cascade Go 0000165	2.52E-04	MAPK8IP3, TAOK3, MAPK10, HIPK2	3.46E-02
39	44	42	4	Stress Activated Protein Kinase Signaling Pathway	1.57E-05	MAPK8IP3, TAOK3, MAPK10, HIPK2	4.31E-03
40	234	84	19	Dna Metabolic Process	1.29E-13	TOP2A, NASP, FANCC, CDT1, EXO1, MSH5, RAD54L, POLD1, CHEK1, BRCA2, BRCA1, MCM2, MCM7, CDK2, TLK2, FEN1, MCM3, RFC4, DNMT1	1.52E-11
40	118	84	8	Dna Repair	1.57E-06	FANCC, EXO1, MSH5, RAD54L, POLD1, BRCA2, BRCA1, FEN1	5.18E-05
40	19	84	4	Mitotic Cell Cycle Checkpoint	7.88E-06	BUB1, KNTC1, BUB1B, TTK	2.32E-04
40	182	84	6	Negative Regulation Of Nucleobasenucleosidenucleotide And Nucleic Acid Metabolic Process	1.68E-03	TIMELESS, CDT1, BRCA1, CENPF, ILF3, DNMT1	3.30E-02
40	177	84	10	Response To Endogenous Stimulus	3.94E-07	FANCC, EXO1, MSH5, RAD54L, POLD1, CHEK1, BRCA2, BRCA1, MCM7, FEN1	1.55E-05

40	99	84	15	M Phase	7.88E-14	KIF15, NCAPH, BUB1, KNTC1, MSH5, RAD54L, KIF11, CHEK1, KIF2C, TPX2, BUB1B, SMC3, NDC80, TTK, PLK1	1.52E-11
40	74	84	8	Microtubule Based Process	4.14E-08	KIF11, KIF2C, KIF4A, SMC3, KIF5B, TTK, TUBG1, PRC1	2.14E-06
40	33	84	4	Regulation Of Mitosis	7.73E-05	BUB1, KNTC1, BUB1B, TTK	1.93E-03
40	31	84	6	Microtubule Cytoskeleton Organization And Biogenesis	6.16E-08	KIF11, KIF2C, SMC3, TTK, TUBG1, PRC1	2.99E-06
40	63	84	6	Interphase	4.76E-06	TIMELESS, SKP2, POLD1, CDK2, CENPF, CDC7	1.45E-04
40	170	84	24	Cell Cycle Process	1.23E-13	KIF15, NCAPH, BUB1, TIMELESS, KNTC1, MSH5, RAD54L, SKP2, POLD1, KIF11, CHEK1, BRCA2, KIF2C, TPX2, CDK2, CENPF, BUB1B, SMC3, CDC7, NDC80, TTK, TUBG1, PRC1, PLK1	1.52E-11
40	39	84	3	Regulation Of Dna Metabolic Process	2.50E-03	CDT1, CDK2, TLK2	4.63E-02
40	32	84	5	Meiotic Cell Cycle	2.54E-06	MSH5, RAD54L, CHEK1, SMC3, TUBG1	8.07E-05
40	134	84	18	Mitotic Cell Cycle	6.54E-14	KIF15, NCAPH, BUB1, KNTC1, SKP2, POLD1, KIF11, KIF2C, TPX2, CDK2, CENPF, BUB1B, SMC3, CDC7, NDC80, TTK, PRC1, PLK1	1.52E-11
40	153	84	21	Cell Cycle Phase	9.08E-14	KIF15, NCAPH, BUB1, TIMELESS, KNTC1, MSH5, RAD54L, SKP2, POLD1, KIF11, CHEK1, KIF2C, TPX2, CDK2, CENPF, BUB1B, SMC3, CDC7, NDC80, TTK, PLK1	1.52E-11
40	13	84	3	S Phase	8.90E-05	TIMELESS, POLD1, CDC7	2.16E-03
40	43	84	7	Cell Cycle Checkpoint Go 0000075	1.64E-08	CCNE2, BUB1, KNTC1, CDT1, CHEK1, BUB1B, TTK	9.48E-07
40	28	84	5	Chromosome Segregation	1.27E-06	TOP2A, NCAPH, BRCA1, CENPF, NDC80	4.55E-05
40	93	84	10	Dna Replication	7.95E-10	NASP, CDT1, EXO1, MSH5, POLD1, MCM2, MCM7, CDK2, MCM3, RFC4	6.56E-08
40	44	84	5	Dna Recombination	1.28E-05	EXO1, MSH5, RAD54L, CHEK1, BRCA1	3.65E-04
40	8	84	4	Mitotic Spindle Organization And Biogenesis	1.51E-07	KIF11, SMC3, TTK, PRC1	6.23E-06
40	70	84	12	Mitosis	1.04E-13	KIF15, NCAPH, BUB1, KNTC1, KIF11, KIF2C, TPX2, BUB1B, SMC3, NDC80, TTK, PLK1	1.52E-11

40	276	84	28	Cell Cycle Go 0007049	1.06E-13	CCNE2, KIF15, NCAPH, BUB1, NASP, TIMELESS, KNTC1, CDT1, MSH5, RAD54L, SKP2, POLD1, KIF11, CHEK1, BRCA2, MCM2, KIF2C, TPX2, CDK2, CENPF, BUB1B, SMC3, CDC7, NDC80, TTK, TUBG1, PRC1, PLK1	1.52E-11
40	181	84	8	Cytoskeleton Organization And Biogenesis	3.67E-05	KIF11, KIF2C, KIF4A, SMC3, KIF5B, TTK, TUBG1, PRC1	1.01E-03
40	105	84	8	Chromosome Organization And Biogenesis	6.43E-07	EZH2, TOP2A, NCAPH, NASP, HDAC2, CHAF1A, TLK2, NDC80	2.41E-05
40	74	84	4	Rna Splicing	1.75E-03	BAT1, SFRS1, SFPQ, PRPF3	3.36E-02
40	63	84	5	Establishment And Or Maintenance Of Chromatin Architecture	7.49E-05	EZH2, NASP, HDAC2, CHAF1A, TLK2	1.93E-03
40	51	84	6	Dna Dependent Dna Replication	1.35E-06	CDT1, EXO1, MSH5, CDK2, MCM3, RFC4	4.63E-05
40	57	84	5	Interphase Of Mitotic Cell Cycle	4.61E-05	SKP2, POLD1, CDK2, CENPF, CDC7	1.23E-03
40	27	84	3	Dna Packaging	8.49E-04	TOP2A, NCAPH, CHAF1A	1.89E-02
40	9	84	5	Spindle Organization And Biogenesis	1.81E-09	KIF11, SMC3, TTK, TUBG1, PRC1	1.33E-07
40	150	84	10	Response To Dna Damage Stimulus	8.35E-08	FANCC, EXO1, MSH5, RAD54L, POLD1, CHEK1, BRCA2, BRCA1, MCM7, FEN1	3.83E-06
40	157	84	10	Regulation Of Cell Cycle	1.29E-07	CCNE2, BUB1, TIMELESS, KNTC1, CDT1, CHEK1, CDK2, BUB1B, CDC7, TTK	5.58E-06
40	72	84	12	M Phase Of Mitotic Cell Cycle	1.66E-13	KIF15, NCAPH, BUB1, KNTC1, KIF11, KIF2C, TPX2, BUB1B, SMC3, NDC80, TTK, PLK1	1.71E-11
40	266	84	7	Regulation Of Cell Proliferation	2.52E-03	TIMELESS, CHEK1, BRCA2, BRCA1, CDK2, CDC7, TTK	4.63E-02
41	233	68	8	Defense Response	4.74E-05	CCL20, C5AR1, C2, HP, S100A8, STAB1, CEBPB, NOD2	9.77E-03
41	80	68	5	Locomotory Behavior	8.57E-05	CXCL5, CCL20, C5AR1, PLAUR, FPR1	1.41E-02
41	261	68	8	Response To Chemical Stimulus	1.05E-04	SOD2, CXCL5, STC1, CCL20, C5AR1, PLAUR, FPR1, NOD2	1.44E-02
41	21	68	3	Response To Bacterium	2.13E-04	SLC11A1, STAB1, NOD2	2.51E-02
41	207	68	9	Immune Response	2.26E-06	TREM1, IL1R2, CCL20, C5AR1, C2, CTSC, CEBPB, IL4R, IL6	9.31E-04
41	290	68	10	Immune System Process	4.76E-06	TREM1, IL1R2, CCL20, C5AR1, C2, CTSC, MAFB, CEBPB, IL4R, IL6	1.31E-03
41	269	68	12	Response To External Stimulus	2.89E-08	CXCL5, STC1, CCL20, C5AR1, C2, F13A1, PLAUR, S100A8, THBD, FPR1, CEBPB, NOD2	2.39E-05
41	168	68	6	Response To Wounding	3.61E-04	CCL20, C2, F13A1, S100A8, THBD, CEBPB	3.72E-02

41	174	68	6	Negative Regulation Of Developmental Process	4.35E-04	BIRC3, MAFB, STAB1, IER3, IL6, SRGN	3.99E-02
41	29	68	3	Humoral Immune Response	5.67E-04	TREMI, C2, IL6	4.67E-02
43	234	54	7	Dna Metabolic Process	7.78E-05	MCM2, RNASEH2A, DBF4, RFC4, TOP2A, KPNA2, RAD51	3.60E-03
43	19	54	3	Mitotic Cell Cycle Checkpoint	7.85E-05	MAD2L1, TTK, BUB1B	3.60E-03
43	99	54	10	M Phase	1.57E-11	BIRC5, MAD2L1, TTK, UBE2C, NDC80, BUB1B, KPNA2, AURKA, KIF2C, RAD51	2.59E-09
43	74	54	5	Microtubule Based Process	1.91E-05	KIF23, TTK, KPNA2, KIF4A, KIF2C	1.31E-03
43	33	54	5	Regulation Of Mitosis	3.24E-07	BIRC5, MAD2L1, TTK, UBE2C, BUB1B	2.97E-05
43	31	54	3	Microtubule Cytoskeleton Organization And Biogenesis	3.51E-04	KIF23, TTK, KIF2C	1.38E-02
43	63	54	5	Interphase	8.66E-06	BIRC5, CENPF, DBF4, CDKN3, KPNA2	6.49E-04
43	170	54	16	Cell Cycle Process	0.00E+00	BIRC5, CENPF, FBXO5, KIF23, MAD2L1, DBF4, TTK, UBE2C, NDC80, BUB1B, CDKN3, RACGAP1, KPNA2, AURKA, KIF2C, RAD51	0.00E+00
43	134	54	14	Mitotic Cell Cycle	0.00E+00	BIRC5, CENPF, FBXO5, KIF23, MAD2L1, DBF4, TTK, UBE2C, NDC80, BUB1B, CDKN3, KPNA2, AURKA, KIF2C	0.00E+00
43	153	54	13	Cell Cycle Phase	7.52E-14	BIRC5, CENPF, MAD2L1, DBF4, TTK, UBE2C, NDC80, BUB1B, CDKN3, KPNA2, AURKA, KIF2C, RAD51	1.55E-11
43	43	54	4	Cell Cycle Checkpoint Go 0000075	3.91E-05	BIRC5, MAD2L1, TTK, BUB1B	2.31E-03
43	28	54	3	Chromosome Segregation	2.58E-04	CENPF, TOP2A, NDC80	1.06E-02
43	93	54	5	Dna Replication	5.78E-05	MCM2, RNASEH2A, DBF4, RFC4, RAD51	3.18E-03
43	39	54	3	Regulation Of Cyclin Dependent Protein Kinase Activity	6.95E-04	CKS2, CKS1B, CDKN3	2.39E-02
43	70	54	8	Mitosis	7.27E-10	BIRC5, MAD2L1, TTK, UBE2C, NDC80, BUB1B, AURKA, KIF2C	9.99E-08
43	276	54	21	Cell Cycle Go 0007049	0.00E+00	BIRC5, CENPF, FBXO5, KIF23, MCM2, MAD2L1, DTYMK, DBF4, CKS2, CKS1B, TTK, UBE2C, NDC80, CDC20, BUB1B, CDKN3, RACGAP1, KPNA2, AURKA, KIF2C, RAD51	0.00E+00
43	181	54	6	Cytoskeleton Organization And Biogenesis	1.51E-04	KIF23, TTK, RACGAP1, KPNA2, KIF4A, KIF2C	6.54E-03
43	57	54	5	Interphase Of Mitotic Cell Cycle	5.26E-06	BIRC5, CENPF, DBF4, CDKN3, KPNA2	4.34E-04
43	157	54	9	Regulation Of Cell Cycle	2.79E-08	BIRC5, FBXO5, MAD2L1, CKS2, CKS1B, TTK, UBE2C, BUB1B, CDKN3	2.87E-06

43	72	54	8	M Phase Of Mitotic Cell Cycle	9.15E-10	BIRC5, MAD2L1, TTK, UBE2C, NDC80, BUB1B, AURKA, KIF2C	1.08E-07
44	138	43	5	Rna Processing	1.25E-04	PRPF31, CPSF6, CSTF2, DHX38, NONO	3.43E-02
44	61	43	5	Mrna Processing Go 0006397	2.34E-06	PRPF31, CPSF6, CSTF2, DHX38, NONO	1.93E-03
44	71	43	5	Mrna Metabolic Process	5.00E-06	PRPF31, CPSF6, CSTF2, DHX38, NONO	2.06E-03
45	104	95	6	Positive Regulation Of Transcriptiondna Dependent	1.68E-04	TCF4, BPTF, NCOA6, MAML1, RBM14, MED1	1.53E-02
45	59	95	4	Positive Regulation Of Transcription From Rna Polymerase Ii Promoter	1.19E-03	NCOA6, MAML1, RBM14, MED1	4.26E-02
45	249	95	8	Macromolecular Complex Assembly	7.71E-04	SMARCA5, GTF2I, ZW10, NCOA6, SFRS2IP, SFRS1, MED1, GTF2F1	3.03E-02
45	133	95	6	Positive Regulation Of Nucleobasenucleosidenucleotide And Nucleic Acid Metabolic Process	6.31E-04	TCF4, BPTF, NCOA6, MAML1, RBM14, MED1	2.74E-02
45	77	95	5	Nuclear Transport	3.47E-04	AKT1, KHDRBS1, KPNB1, XPO6, TPR	1.91E-02
45	106	95	6	Positive Regulation Of Rna Metabolic Process	1.86E-04	TCF4, BPTF, NCOA6, MAML1, RBM14, MED1	1.53E-02
45	93	95	5	Protein Targeting	8.26E-04	AKT1, KPNB1, XPO6, ATG4B, TPR	3.10E-02
45	32	95	5	Transcription Initiation	4.68E-06	SMARCA5, GTF2I, NCOA6, MED1, GTF2F1	9.64E-04
45	43	95	5	Protein Dna Complex Assembly	2.09E-05	SMARCA5, GTF2I, NCOA6, MED1, GTF2F1	2.87E-03
45	263	95	9	Regulation Of Transcription From Rna Polymerase Ii Promoter	2.25E-04	SMARCA5, TRIM27, BPTF, NCOA6, MAML1, RBM14, ZNF148, MED1, DNMT1	1.55E-02
45	138	95	8	Rna Processing	1.28E-05	CPSF6, KHDRBS1, SFRS2IP, ZNF638, SFRS1, U2AF1, SSB, PABPC4	2.10E-03
45	266	95	9	Cellular Component Assembly	2.45E-04	SMARCA5, HIP1, GTF2I, ZW10, NCOA6, SFRS2IP, SFRS1, MED1, GTF2F1	1.55E-02
45	61	95	4	Mrna Processing Go 0006397	1.35E-03	CPSF6, KHDRBS1, SFRS2IP, SFRS1	4.48E-02
45	27	95	4	Transcription Initiation From Rna Polymerase Ii Promoter	5.55E-05	GTF2I, NCOA6, MED1, GTF2F1	6.54E-03
45	71	95	5	Mrna Metabolic Process	2.37E-04	CPSF6, KHDRBS1, SFRS2IP, SFRS1, SSB	1.55E-02
45	105	95	5	Chromosome Organization And Biogenesis	1.43E-03	SMARCA5, ZW10, BPTF, RFC1, RBM14	4.52E-02
45	124	95	6	Positive Regulation Of Transcription	4.35E-04	TCF4, BPTF, NCOA6, MAML1, RBM14, MED1	2.24E-02
45	77	95	5	Nucleocytoplasmic Transport	3.47E-04	AKT1, KHDRBS1, KPNB1, XPO6, TPR	1.91E-02
46	138	60	7	Rna Processing	5.19E-06	PRPF4B, DIS3, SRPK1, EXOSC2, USP39, CPSF6, CSTF1	8.56E-04
46	61	60	4	Mrna Processing Go 0006397	2.35E-04	SRPK1, USP39, CPSF6, CSTF1	3.14E-02
46	71	60	6	Mrna Metabolic Process	1.32E-06	SRPK1, SMG1, USP39, GSPT1, CPSF6, CSTF1	3.63E-04

46	63	60	4	Establishment And Or Maintenance Of Chromatin Architecture	2.66E-04	SMARCC1, NASP, TLK2, SAFB	3.14E-02
47	249	59	9	Macromolecular Complex Assembly	3.05E-06	CHAF1A, GTF2F1, HCFC1, EIF3B, NCOA6, MED1, ATF7IP, EPRS, GTF2I	1.26E-03
47	77	59	4	Nuclear Transport	5.39E-04	KHDRBS1, XPO6, KPNB1, KPNA6	2.96E-02
47	32	59	4	Transcription Initiation	1.69E-05	GTF2F1, NCOA6, MED1, GTF2I	2.32E-03
47	43	59	6	Protein Dna Complex Assembly	5.65E-08	CHAF1A, GTF2F1, NCOA6, MED1, ATF7IP, GTF2I	4.66E-05
47	266	59	9	Cellular Component Assembly	5.23E-06	CHAF1A, GTF2F1, HCFC1, EIF3B, NCOA6, MED1, ATF7IP, EPRS, GTF2I	1.44E-03
47	27	59	4	Transcription Initiation From Rna Polymerase Ii Promoter	8.38E-06	GTF2F1, NCOA6, MED1, GTF2I	1.73E-03
47	77	59	4	Nucleocytoplasmic Transport	5.39E-04	KHDRBS1, XPO6, KPNB1, KPNA6	2.96E-02
49	40	41	3	Response To Virus	3.32E-04	TLR7, PTPRC, LILRB1	2.49E-02
49	128	41	4	Multi Organism Process	9.10E-04	CD4, TLR7, PTPRC, LILRB1	3.09E-02
49	124	41	4	Positive Regulation Of Cell Proliferation	8.08E-04	CD86, IL18, PTPRC, HCLS1	3.09E-02
49	62	41	3	Cell Activation	1.21E-03	CD4, IL18, PTPRC	3.11E-02
49	69	41	4	Hemopoiesis	8.52E-05	CD4, PTPRC, HCLS1, SPI1	1.54E-02
49	74	41	4	Immune System Development	1.12E-04	CD4, PTPRC, HCLS1, SPI1	1.54E-02
49	35	41	3	Cytokine Metabolic Process	2.22E-04	IL18, TLR7, TLR1	2.04E-02
49	233	41	7	Defense Response	1.19E-05	TLR7, CYBB, MNDA, PTPRC, RNASE6, CSF3R, CCR1	3.27E-03
49	150	41	4	Regulation Of Protein Metabolic Process	1.64E-03	TLR7, ITGB2, TLR1, HCLS1	3.65E-02
49	60	41	3	Cytokine Production	1.10E-03	IL18, TLR7, TLR1	3.11E-02
49	62	41	3	Positive Regulation Of Cellular Protein Metabolic Process	1.21E-03	TLR7, TLR1, HCLS1	3.11E-02
49	57	41	3	Leukocyte Activation	9.44E-04	CD4, IL18, PTPRC	3.09E-02
49	207	41	9	Immune Response	2.40E-08	FYB, NCF4, CD86, IL18, TLR7, CTSS, LCP2, PTPRC, CCR1	9.89E-06
49	71	41	4	Hemopoietic Or Lymphoid Organ Development	9.53E-05	CD4, PTPRC, HCLS1, SPI1	1.54E-02
49	63	41	3	Response To Other Organism	1.26E-03	TLR7, PTPRC, LILRB1	3.11E-02
49	172	41	4	Homeostatic Process	2.70E-03	PTPRC, HCLS1, SPI1, CCR1	4.80E-02
49	290	41	14	Immune System Process	3.06E-13	FYB, NCF4, CD4, SYK, CD86, IL18, TLR7, CTSS, ITGB2, LCP2, PTPRC, HCLS1, SPI1, CCR1	2.53E-10
49	39	41	3	T Cell Activation	3.07E-04	CD4, IL18, PTPRC	2.49E-02
49	34	41	3	Cytokine Biosynthetic Process	2.04E-04	IL18, TLR7, TLR1	2.04E-02
49	64	41	3	Positive Regulation Of Protein Metabolic Process	1.32E-03	TLR7, TLR1, HCLS1	3.11E-02
49	52	41	3	Lymphocyte Activation	7.21E-04	CD4, IL18, PTPRC	3.09E-02
49	139	41	4	Regulation Of Cellular Protein Metabolic Process	1.24E-03	TLR7, ITGB2, TLR1, HCLS1	3.11E-02
51	40	88	4	Response To Virus	1.99E-04	PTPRC, TLR7, LILRB1, APOBEC3G	1.28E-02
51	95	88	5	Positive Regulation Of Signal Transduction	6.42E-04	PTPRC, LGALS9, CASP1, LYN, HMOX1	3.12E-02

51	128	88	6	Multi Organism Process	3.41E-04	PTPRC, CD4, TLR7, LILRB1, HLA-DPB1, APOBEC3G	1.88E-02
51	69	88	5	Hemopoiesis	1.45E-04	PTPRC, SCIN, CD4, MAFB, LYN	1.28E-02
51	74	88	5	Immune System Development	2.01E-04	PTPRC, SCIN, CD4, MAFB, LYN	1.28E-02
51	233	88	13	Defense Response	1.27E-08	PTPRC, LY96, ADORA3, MNDA, CCR1, AIF1, C3AR1, NCF2, TLR7, RNASE6, CYBB, LYZ, APOBEC3G	3.49E-06
51	60	88	5	Cytokine Production	7.40E-05	IL18, PYCARD, SRGN, TLR1, TLR7	8.72E-03
51	11	88	3	Leukocyte Chemotaxis	5.96E-05	SYK, ITGB2, DOCK2	8.20E-03
51	10	88	3	Defense Response To Virus	4.36E-05	PTPRC, TLR7, APOBEC3G	7.20E-03
51	113	88	6	Inflammatory Response	1.73E-04	ADORA3, CCR1, AIF1, C3AR1, CYBB, LYZ	1.28E-02
51	207	88	13	Immune Response	3.04E-09	FYB, CD86, IL18, PTPRC, TREM2, IGSF6, LCP2, CCR1, FCGR1A, CTSS, TLR7, NCF4, APOBEC3G	1.25E-06
51	71	88	5	Hemopoietic Or Lymphoid Organ Development	1.66E-04	PTPRC, SCIN, CD4, MAFB, LYN	1.28E-02
51	63	88	4	Response To Other Organism	1.14E-03	PTPRC, TLR7, LILRB1, APOBEC3G	4.86E-02
51	290	88	20	Immune System Process	0.00E+00	FYB, SYK, CD86, IL18, PTPRC, ITGB2, DOCK2, SCIN, TREM2, IGSF6, LCP2, CCR1, CD4, FCGR1A, CTSS, TLR7, NCF4, MAFB, LYN, APOBEC3G	0.00E+00
51	269	88	10	Response To External Stimulus	2.55E-05	SYK, ITGB2, DOCK2, RNASE2, ADORA3, CCR1, AIF1, C3AR1, CYBB, LYZ	5.26E-03
51	19	88	3	Rna Catabolic Process	3.36E-04	RNASE2, RNASE3, RNASE6	1.88E-02
51	13	88	3	Leukocyte Migration	1.02E-04	SYK, ITGB2, DOCK2	1.05E-02