

Table S24. GBM modules enriched with GO terms using a TANGO tool.

Module ID	x	Description	p-value	q-value	Frequency	Genes
2	40	M Phase Of Mitotic Cell Cycle	1.91E-42	0.001	42	KIF23, NEK2, KNTC1, AURKA, AURKB, CEP55, MYBL2, KIF2C, SPC25, NCAPH, CDCA8, DDX11, NCAPG, BUB1, FBXO5, ZWILCH, CCNA2, BUB3, ASPM, CDCA3, CDC6, CENPM, KIF11, KIF15, TPX2, CENPF, CDC20, CENPE, ESPL1, NDC80, BIRC5, CDC25C, RACGAP1, SMC2, MAD2L1, SPAG5, PLK1, ZWINT, BUB1B, KIF20A
2	30	Regulation Of Cell Cycle Arrest	5.51E-29	0.001	31	FOXMI, KNTC1, TTK, CHEK1, MCM10, GTSE1, CDT1, CDC45, MCM7, BUB1, ORC6, ZWILCH, CCNA2, TOP2A, BUB3, CDC7, CDC6, CENPF, CDC20, BIRC5, MCM2, CDC25C, MCM3, MCM4, BRCA1, MCM6, MAD2L1, PLK1, ZWINT, BUB1B
2	29	Microtubule-Based Process	1.88E-25	0.001	30	KIF23, KIF4A, PRC1, NEK2, TTK, AURKA, AURKB, MYBL2, GTSE1, KIF2C, SPC25, FBXO5, TUBG1, BUB3, KIF14, KIF11, KIF15, ESPL1, NDC80, CENPE, RACGAP1, TACC3, BRCA1, PLK1, SPAG5, ZWINT, BUB1B, KPNA2, KIF20A
2	21	Chromosome Segregation	1.17E-24	0.001	22	NEK2, MSH5, CENPF, ESPL1, BIRC5, NDC80, CENPE, AURKB, SMC2, BRCA1, KIF2C, SPC25, NCAPH, MAD2L1, DDX11, SPAG5, NCAPG, ZWINT, BUB1, TOP2A, BUB3
2	18	Spindle Organization	8.24E-24	0.001	19	KIF23, KIF11, PRC1, NEK2, TTK, NDC80, AURKA, ESPL1, AURKB, TACC3, RACGAP1, MYBL2, SPC25, SPAG5, ZWINT, BUB1B, FBXO5, TUBG1
2	18	Mitotic Prometaphase	9.43E-23	0.001	19	CENPM, KNTC1, CENPF, BIRC5, NDC80, CENPE, CDC20, AURKB, SPC25, KIF2C, CDCA8, MAD2L1, PLK1, ZWINT, BUB1, BUB1B, ZWILCH, BUB3
2	27	Interphase Of Mitotic Cell Cycle	1.67E-21	0.001	28	NEK2, FOXMI, CHEK1, POLA2, MCM10, GTSE1, CDT1, CDC45, MCM7, DDX11, FBXO5, ORC6, TUBG1, CCNA2, TOP2A, CDC7, CDC6, CENPF, BIRC5, MCM2, CDC25C, MCM3, MCM4, MCM6, PLK1, KPNA2, MELK
2	25	Regulation Of Mitotic Cell Cycle	2.37E-20	0.001	26	CDC6, NEK2, KNTC1, TPX2, CENPF, TTK, CDC20, CHEK1, BIRC5, ESPL1, AURKA, CDC25C, GTSE1, CDT1, CDC45, MAD2L1, PLK1, ZWINT, BUB1, FBXO5, BUB1B, ZWILCH, TOP2A, CCNA2, BUB3
2	13	Sister Chromatid Segregation	5.94E-18	0.001	14	NEK2, ESPL1, NDC80, CENPE, SMC2, NCAPH, MAD2L1, DDX11, NCAPG, SPAG5, ZWINT, TOP2A, BUB3
2	15	Regulation Of Nuclear Division	1.08E-17	0.001	16	CDC6, NEK2, CENPF, TTK, ESPL1, AURKA, CDC20, CHEK1, CDC25C, MAD2L1, PLK1, BUB1, BUB1B, FBXO5, BUB3
2	10	Regulation Of Chromosome Segregation	3.18E-17	0.001	10	CDC6, KIF2C, NEK2, SPAG5, BUB1, ESPL1, AURKB, RACGAP1, ECT2, BUB3
2	19	Dna Replication	3.28E-17	0.001	20	CDC7, CDC6, CENPF, CHEK1, MCM2, POLA2, CDC25C, MCM10, MCM3, MCM4, BRCA1, RAD51, MCM6, CDT1, CDC45, MCM7, ORC6, POLQ, TOP2A

2	14	Negative Regulation Of Cell Cycle Process	1.08E-15	0.001	15	CDC6, TTK, CENPF, CHEK1, ESPL1, CDC20, BRCA1, CDT1, CDC45, MAD2L1, BUB1, FBXO5, BUB1B, BUB3
2	10	Regulation Of Mitotic Metaphase/Anaphase Transition	1.99E-14	0.001	10	MAD2L1, PLK1, BUB1, FBXO5, TTK, CENPF, BUB1B, ESPL1, CDC20, BUB3
2	12	M/G1 Transition Of Mitotic Cell Cycle	5.67E-13	0.001	13	CDC7, CDC6, CDC45, MCM7, ORC6, MCM2, POLA2, MCM10, MCM3, MCM4, CDT1, MCM6
2	12	Meiotic Cell Cycle	2.00E-11	0.001	13	EXO1, MKI67, PLK1, NEK2, MSH5, FBXO5, ESPL1, TUBG1, TOP2A, RAD54L, BUB3, RAD51
2	8	Spindle Checkpoint	3.78E-11	0.001	8.3	MAD2L1, BUB1, TTK, CENPF, BUB1B, BIRC5, CDC20, BUB3
2	10	Cytokinesis	9.19E-11	0.001	10	KIF23, PRC1, PLK1, ESPL1, BIRC5, CEP55, AURKB, RACGAP1, ECT2, KIF20A
2	7	Dna-Dependent Dna Replication Initiation	1.31E-10	0.001	7.3	CDC45, MCM7, MCM2, POLA2, MCM3, MCM4, MCM6
2	12	Negative Regulation Of Organelle Organization	8.37E-10	0.001	13	MAD2L1, BUB1, FBXO5, TTK, CENPF, BUB1B, ESPL1, CHEK1, CDC20, BCOR, BUB3, BRCA1
2	5	Dna Unwinding Involved In Replication	1.75E-09	0.001	5.2	MCM7, MCM2, MCM4, RAD51, MCM6
2	12	Dna Conformation Change	3.01E-09	0.001	13	NCAPH, HMGB2, MCM7, DDX11, NCAPG, MCM2, ASF1B, TOP2A, SMC2, MCM4, RAD51, MCM6
2	7	Dna Strand Elongation Involved In Dna Replication	4.10E-09	0.001	7.3	CDC45, MCM7, MCM2, POLA2, MCM3, MCM4, MCM6
2	9	Organelle Assembly	5.58E-09	0.002	9.4	KIF23, KIF11, NEK2, FBXO5, CENPF, CENPE, AURKB, RACGAP1, MYBL2
2	9	Regulation Of Microtubule-Based Process	1.14E-08	0.002	9.4	NEK2, SPAG5, TPX2, AURKA, CHEK1, RACGAP1, TACC3, ECT2, BRCA1
2	11	Positive Regulation Of Cell Cycle Process	1.72E-08	0.002	11	KIF23, CDC6, PLK1, ESPL1, AURKA, BIRC5, AURKB, RACGAP1, ECT2, GTSE1, BRCA1
2	5	Regulation Of Cell Cycle Cytokinesis	3.86E-08	0.004	5.2	KIF23, CDC6, AURKB, RACGAP1, ECT2
2	6	Regulation Of G2/M Transition Of Mitotic Cell Cycle	4.83E-08	0.005	6.3	CDC6, CDC45, CENPF, TOP2A, CCNA2, CDT1
2	8	Anaphase-Promoting Complex-Dependent Proteasomal Ubiquitin-Dependent Protein Catabolic Process	1.03E-07	0.008	8.3	MAD2L1, PLK1, FBXO5, BUB1B, AURKA, CDC20, AURKB, BUB3
2	10	Dna Recombination	1.59E-07	0.011	10	EXO1, HMGB2, RAD51AP1, MSH5, POLA2, TOP2A, SMC2, RAD54L, BRCA1, RAD51
2	4	Mitotic Spindle	4.95E-07	0.027	4.2	KIF23, SPAG5, RACGAP1, ECT2
2	13	Dna Repair	5.58E-07	0.028	14	EXO1, HMGB2, RAD51AP1, FANCI, MSH5, FOXM1, CHEK1, POLQ, TOP2A, SMC2, RAD54L, BRCA1, RAD51
3	8	Response To Ionizing Radiation	8.12E-07	0.038	8.1	DCLRE1C, PAXIP1, XRCC2, CLK2, RAD9A, TOPBP1, ATR, ATM
4	18	Response To Virus	1.20E-23	0.001	46	IFIH1, OAS3, HERC5, RSAD2, TLR3, IFI44L, OAS1, IFI44, OAS2, STAT1, IFI35, CXCL10, IRF9, IRF7, DDX60, MX1, EIF2AK2, MX2

4	13	Response To Type I Interferon	9.93E-22	0.001	33	IFIT3, IRF9, USP18, SP100, IRF7, OAS3, OAS1, OAS2, XAF1, MX1, STAT1, MX2, IFI35
4	9	Cellular Response To Interferon-Gamma	1.06E-12	0.001	23	IRF9, SP100, IRF7, OAS3, TLR3, OAS1, OAS2, STAT1, GBP1
5	22	Mitosis	2.81E-23	0.001	40	KIF23, KIF11, KIF15, TPX2, KNTC1, CENPF, NDC80, CENPE, AURKB, MYBL2, CDK2, KIF2C, NCAPH, TIMELESS, PLK1, SPAG5, NCAPG, BUB1B, FBXO5, ZWILCH, ASPM, CDCA3
5	19	Microtubule-Based Process	3.32E-18	0.001	35	KIF23, KIF14, KIF4A, KIF11, PRC1, KIF15, TTK, NDC80, CENPE, AURKB, TACC3, MYBL2, GTSE1, CDK2, KIF2C, PLK1, SPAG5, BUB1B, FBXO5
5	16	Regulation Of Cell Cycle Arrest	2.61E-15	0.001	29	FOXM1, KNTC1, TTK, CENPF, CHEK1, MCM2, MCM3, MCM4, GTSE1, CDK2, CDC45, MCM7, PLK1, BUB1B, ZWILCH, TOP2A
5	11	Spindle Organization	4.34E-15	0.001	20	KIF23, KIF11, PRC1, SPAG5, FBXO5, TTK, BUB1B, NDC80, AURKB, MYBL2, TACC3
5	13	Dna Replication	3.86E-13	0.001	24	NASP, LIG1, CENPF, CHEK1, MCM2, MCM3, MCM4, CDK2, RAD51, CDC45, MCM7, CHAF1A, TOP2A
5	14	Interphase Of Mitotic Cell Cycle	4.96E-11	0.001	25	FOXM1, LIG1, CENPF, CHEK1, MCM2, MCM3, MCM4, GTSE1, CDK2, CDC45, MCM7, PLK1, FBXO5, TOP2A
5	13	Regulation Of Mitotic Cell Cycle	1.56E-10	0.001	24	TPX2, KNTC1, TTK, CENPF, CHEK1, CDK2, GTSE1, CDC45, PLK1, FBXO5, BUB1B, ZWILCH, TOP2A
5	13	Dna Repair	6.16E-10	0.001	24	EXO1, RAD51AP1, XRCC2, FANCI, LIG1, FOXM1, TRIM28, CHEK1, CHAF1A, TOP2A, CDK2, FANCC, RAD51
5	6	Dna Strand Elongation Involved In Dna Replication	5.45E-09	0.001	11	CDC45, MCM7, LIG1, MCM2, MCM3, MCM4
5	8	Meiosis	1.19E-08	0.002	15	EXO1, XRCC2, MKI67, PLK1, FBXO5, TOP2A, CDK2, RAD51
5	5	Dna-Dependent Dna Replication Initiation	2.78E-08	0.003	9.1	CDC45, MCM7, MCM2, MCM3, MCM4
5	4	Dna Unwinding Involved In Replication	3.00E-08	0.003	7.3	MCM7, MCM2, MCM4, RAD51
5	7	Organelle Assembly	3.84E-08	0.004	13	KIF23, KIF11, FBXO5, CENPF, CENPE, AURKB, MYBL2
5	5	Negative Regulation Of Mitosis	2.05E-07	0.014	9.1	FBXO5, TTK, CENPF, BUB1B, CHEK1
5	5	Regulation Of Mitotic Metaphase/Anaphase Transition	2.44E-07	0.015	9.1	PLK1, FBXO5, TTK, CENPF, BUB1B
5	8	Dna Conformation Change	4.62E-07	0.024	15	NCAPH, MCM7, NCAPG, MCM2, CHAF1A, TOP2A, MCM4, RAD51
7	15	Mitosis	3.47E-15	0.001	35	CENPM, BIRC5, NDC80, AURKA, AURKB, RACGAP1, PPP1CC, CCNB1, SPC25, NCAPH, MAD2L1, OIP5, CENPA, BUB1B, CDCA3
7	10	Mitotic Prometaphase	5.67E-14	0.001	23	CCNB1, SPC25, CENPM, MAD2L1, CENPA, BUB1B, NDC80, BIRC5, AURKB, PPP1CC
7	7	Spindle Organization	2.52E-09	0.001	16	CEP72, SPC25, BUB1B, AURKA, NDC80, AURKB, RACGAP1

8	22	Response To Bacterium	4.94E-19	0.001	30	ICAM1, CCL2, CEBPB, LYN, NCF1, HCK, TLR1, MMP7, SOD2, SLC11A1, TNFRSF1B, THBD, CCL20, CCR5, STAB1, PLCG2, PLA2G2A, IL1B, SERPINA1, FAS, CD14, SYK
8	15	Cytokine-Mediated Signaling Pathway	1.73E-10	0.001	21	ICAM1, IL1R2, PTPN6, CCL2, PTPN2, HCK, CCR1, TNFRSF1B, CD44, CCR5, IL10RA, IL4R, IL1B, FAS, IL13RA1
8	10	Cellular Response To Biotic Stimulus	1.96E-10	0.001	14	ICAM1, TNFRSF1B, CCL2, LYN, CCR5, HCK, TLR1, IL1B, CD14, SYK
8	12	Leukocyte Migration	9.32E-10	0.001	16	ICAM1, PTPN6, THBD, CCL2, LYN, CCR5, HCK, CCR1, IL1B, TREM1, ITGAM, SYK
8	12	Immune Effector Process	1.20E-09	0.001	16	ICAM1, PTPRC, PTPN6, SLC11A1, LYN, NCF1, HCK, TLR1, PLCG2, FAS, PTX3, SYK
8	6	B Cell Receptor Signaling Pathway	7.54E-09	0.002	8.2	PTPRC, PTPN6, LYN, PLCG2, SYK, BTK
8	13	Cellular Cation Homeostasis	8.63E-09	0.002	18	TCIRG1, STEAP3, PTPRC, SLC39A14, CCL2, CCR1, HP, SLC11A1, CCR5, PLCG2, IL1B, STC1, CP
8	8	Response To Interferon-Gamma	4.45E-08	0.005	11	ICAM1, PTPN6, SLC11A1, CCL2, CD44, PTPN2, HCK, UBD
8	12	Positive Regulation Of Immune Response	1.12E-07	0.009	16	PTPRC, PTPN6, SLC11A1, LYN, HCK, TLR1, PLCG2, IL1B, WAS, CD14, SYK, BTK
8	10	Regulation Of Immune Effector Process	1.29E-07	0.009	14	ICAM1, PTPRC, PTPN6, CCL2, LYN, HCK, IL4R, IL1B, SYK, BTK
8	11	Leukocyte Activation	8.33E-07	0.039	15	ICAM1, PTPRC, SLC11A1, LYN, TLR1, PLCG2, UBD, FAS, WAS, SYK, BTK
10	18	M Phase Of Mitotic Cell Cycle	6.16E-15	0.001	25	BORA, TPX2, KNTC1, NDC80, AURKA, CEP55, SMC2, NCAPD3, CDK2, KIF2C, CDCA8, PLK1, NCAPG, ZWINT, BUB1B, ZWILCH, CCNA2, KIF20A
10	16	Cell Cycle Checkpoint	6.24E-14	0.001	22	KNTC1, CHEK1, MCM2, MCM3, MCM4, CDK2, CDT1, RFWD3, PLK1, ZWINT, MAPK14, BUB1B, FANCG, ZWILCH, CCNA2, ORC2
10	14	Interphase Of Mitotic Cell Cycle	2.25E-09	0.001	19	SKP2, CHEK1, MCM2, MCM3, CDKN3, MCM4, CDK2, CDT1, PLK1, TFDP2, CCNA2, ORC2, MELK, FEN1
10	11	Dna Replication	3.71E-09	0.001	15	BAZ1A, SUPT16H, CHEK1, MCM2, POLQ, MCM3, MCM4, CDK2, FEN1, ORC2, CDT1
10	13	Regulation Of Mitotic Cell Cycle	5.31E-09	0.001	18	BORA, KNTC1, TPX2, CHEK1, AURKA, CDK2, CDT1, RFWD3, PLK1, ZWINT, BUB1B, ZWILCH, CCNA2
10	7	Mrna 3'-End Processing	1.01E-07	0.008	9.7	SRSF1, SRSF2, NCBP1, CSTF2, EIF4A1, NUDT21, CPSF6
12	12	Angiogenesis	4.24E-11	0.001	26	EDNRA, COL4A2, COL4A1, CD34, ITGA5, PDGFRB, ENPEP, MCAM, MYH9, ANGPT2, ITGB1, FN1
12	10	Extracellular Matrix Organization	1.12E-10	0.001	21	COL4A2, PXDN, COL3A1, COL1A2, OLFML2A, NID1, COL1A1, LAMC1, COL5A2, COL5A1
12	6	Glomerulus Development	1.03E-08	0.002	13	NOTCH3, CD34, PDGFRB, NID1, ENPEP, ANGPT2
12	8	Cell-Substrate Adhesion	1.49E-08	0.002	17	CD34, COL3A1, NID1, NID2, LAMC1, LAMB1, ITGB1, FN1
12	5	Cellular Response To Amino Acid Stimulus	1.80E-07	0.013	11	COL4A1, COL3A1, COL1A2, COL1A1, COL5A2

12	8	Leukocyte Migration	4.76E-07	0.026	17	CD34, ITGA5, COL1A2, COL1A1, MYH9, ANGPT2, ITGB1, FN1
12	5	Skin Development	7.95E-07	0.038	11	COL3A1, COL1A2, COL1A1, COL5A2, COL5A1
13	7	Spindle Organization	4.34E-07	0.023	7.8	KIF23, SPC25, KIF11, NEK2, FBXO5, NDC80, RACGAP1
14	13	Angiogenesis	1.44E-10	0.001	20	NRP2, NRP1, SRPX2, ITGA5, ANG, TGFBI, MMP19, VEGFA, SERPINE1, SHC1, THBS1, PLAU, ANXA2
14	7	Regulation Of Hemostasis	2.77E-08	0.003	11	CAV1, THBD, SERPINE1, THBS1, PLAU, PLAUR, ANXA2
14	9	Regulation Of Epithelial Cell Proliferation	4.02E-07	0.021	14	NRP2, CAV1, NRP1, ANG, GRN, VEGFA, LAMC1, THBS1, LAMB1
15	29	M Phase Of Mitotic Cell Cycle	8.21E-15	0.001	13	BORA, CEP55, AURKB, MYBL2, KIAA1009, KIF2C, NCAPH, CDCA8, DDX11, NCAPG, RHOA, ASPM, CDCA3, CDC6, CENPM, KIF11, KIF15, CENPF, CDC20, CENPE, UBE2C, MLF11P, CDC25A, MAD2L1, PLK1, SPAG5, ZWINT, BUB1B, KIF20A
15	23	Regulation Of Cell Cycle Arrest	6.77E-11	0.001	10	E2F1, CDC6, DTL, SOX11, FOXM1, TTK, CENPF, CDC20, UBE2C, GTSE1, CDC25A, CDT1, PSMA2, CCND1, CDC45, MAD2L1, PLK1, ZWINT, PSMC2, BUB1B, ORC6, H2AFX, TOP2A
15	24	Microtubule-Based Process	3.24E-10	0.001	10	KIF14, KIF4A, KIF11, PRC1, PCNT, KIF15, TTK, BRCA2, CENPE, AURKB, MYBL2, TACC3, UBE2C, GTSE1, KIF2C, UXT, PLK1, SPAG5, ZWINT, RHOA, BUB1B, KIF21B, NEFL, KIF20A
15	12	Spindle Organization	2.71E-09	0.001	5.2	KIF11, PRC1, SPAG5, ZWINT, PCNT, RHOA, TTK, BUB1B, AURKB, UBE2C, MYBL2, TACC3
15	12	Mitotic Prometaphase	1.11E-08	0.002	5.2	KIF2C, CENPM, CDCA8, MAD2L1, PLK1, ZWINT, CENPF, BUB1B, CENPE, CDC20, AURKB, MLF11P
15	20	Regulation Of Mitotic Cell Cycle	1.89E-07	0.014	8.7	E2F1, CDC6, BORA, TTK, BRCA2, CENPF, CDC20, UBE2C, GTSE1, CDT1, PSMA2, CCND1, CDC45, MAD2L1, PLK1, ZWINT, PSMC2, BUB1B, TOP2A, LRP5
15	12	Chromosome Segregation	4.70E-07	0.026	5.2	KIF2C, NCAPH, MAD2L1, DDX11, SPAG5, NCAPG, ZWINT, CENPF, BRCA2, CENPE, AURKB, TOP2A
16	40	Mitosis	1.62E-43	0.001	43	KIF23, NEK2, BORA, KNTC1, AURKA, AURKB, CEP55, CHEK2, MYBL2, KIF2C, SPC25, NCAPH, CDCA8, DDX11, CENPA, OIP5, NCAPG, BUB1, CCNA2, ASPM, ERCC6L, CDCA3, CDC6, CENPN, KIF11, DLGAP5, KIF15, TPX2, CDC20, CENPE, ESPL1, NDC80, CDC25C, SMC2, CDC25A, CDK2, CCNB2, SPAG5, PLK1, BUB1B
16	22	Cell Cycle Checkpoint	1.80E-19	0.001	24	CDC6, KNTC1, TTK, CDC20, CHEK1, CHEK2, CDC25C, MCM10, MCM4, GTSE1, CDC25A, BRCA1, CDK2, CDT1, CDC45, CCNB2, RFWD3, PLK1, BUB1, BUB1B, CCNA2, ORC1
16	24	Microtubule-Based Process	1.92E-19	0.001	26	KIF23, KIF14, KIF11, NEK2, DLGAP5, KIF15, TTK, BRCA2, NDC80, CENPE, AURKA, ESPL1, AURKB, CHEK2, MYBL2, GTSE1, BRCA1, CDK2, KIF2C, SPC25, PLK1, SPAG5, CENPA, BUB1B

16	20	Dna Replication	7.95E-19	0.001	22	CDC6, LIG3, BRCA2, CHEK1, POLA2, CDC25C, MCM10, MCM4, CDC25A, BRCA1, CDK2, TK1, RAD51, CDT1, CDC45, POLD1, POLG2, POLQ, ORC1, FEN1
16	23	Regulation Of Mitotic Cell Cycle	2.91E-18	0.001	25	CDC6, NEK2, DLGAP5, BORA, TPX2, KNTC1, TTK, BRCA2, CDC20, AURKA, ESPL1, CHEK1, CDC25C, GTSE1, CDK2, CDT1, CDC45, RFWD3, PLK1, POLD1, BUB1, BUB1B, CCNA2
16	16	Chromosome Segregation	3.60E-17	0.001	17	NEK2, DLGAP5, BRCA2, NDC80, CENPE, ESPL1, AURKB, SMC2, BRCA1, KIF2C, SPC25, NCAPH, DDX11, SPAG5, NCAPG, BUB1
16	13	Spindle Organization	1.36E-15	0.001	14	KIF23, KIF11, NEK2, TTK, ESPL1, NDC80, AURKA, AURKB, CHEK2, MYBL2, SPC25, SPAG5, BUB1B
16	21	Interphase Of Mitotic Cell Cycle	7.12E-15	0.001	23	CDC6, NEK2, SKP2, CHEK1, CHEK2, POLA2, CDC25C, MCM10, MCM4, GTSE1, CDC25A, CDK2, CDT1, CDC45, CCNB2, DDX11, PLK1, POLD1, CCNA2, ORC1, FEN1
16	13	Regulation Of Nuclear Division	8.69E-15	0.001	14	CDC6, NEK2, DLGAP5, BORA, TTK, ESPL1, CDC20, CHEK1, AURKA, CDC25C, PLK1, BUB1, BUB1B
16	10	Mitotic Sister Chromatid Segregation	2.85E-13	0.001	11	NCAPH, DDX11, NEK2, SPAG5, NCAPG, DLGAP5, ESPL1, CENPE, NDC80, SMC2
16	18	Dna Repair	9.02E-12	0.001	20	EXO1, NEIL3, LIG3, BRCA2, CHEK1, CHEK2, RAD54L, SMC2, BRCA1, CDK2, RAD51, RFWD3, FANCI, POLD1, PARPBP, POLG2, POLQ, FEN1
16	12	S Phase Of Mitotic Cell Cycle	3.09E-11	0.001	13	CDC6, CDC45, DDX11, POLD1, SKP2, POLA2, ORC1, MCM4, CDK2, CDC25A, FEN1, CDT1
16	7	Regulation Of Chromosome Segregation	4.36E-11	0.001	7.6	CDC6, KIF2C, NEK2, SPAG5, BUB1, ESPL1, AURKB
16	10	Negative Regulation Of Cell Cycle Process	3.74E-10	0.001	11	CDC6, CDC45, BUB1, TTK, BUB1B, ESPL1, CHEK1, CDC20, BRCA1, CDT1
16	10	Meiosis	3.04E-09	0.001	11	EXO1, MKI67, PLK1, NEK2, LIG3, BRCA2, ESPL1, RAD54L, CDK2, RAD51
16	10	Dna Recombination	1.18E-07	0.009	11	EXO1, POLD1, LIG3, BRCA2, POLA2, SMC2, RAD54L, BRCA1, FEN1, RAD51
16	10	Positive Regulation Of Cell Cycle Process	1.43E-07	0.009	11	KIF23, CDC6, PLK1, DLGAP5, ESPL1, AURKA, AURKB, GTSE1, CDK2, BRCA1
16	10	Dna Conformation Change	2.71E-07	0.018	11	CENPN, NCAPH, DDX11, NCAPG, CENPA, OIP5, ASF1B, SMC2, MCM4, RAD51
16	7	Regulation Of Microtubule Cytoskeleton Organization	7.48E-07	0.037	7.6	NEK2, SPAG5, BORA, TPX2, AURKA, CHEK1, BRCA1
17	15	Extracellular Matrix Organization	1.10E-16	0.001	25	PXDN, COL4A2, MMP9, OLFML2B, LUM, COL3A1, OLFML2A, COL5A2, COL5A1, TGFBI, COL6A2, COL1A2, LOX, COL1A1, LOXL2
17	8	Collagen Fibril Organization	1.83E-12	0.001	14	LUM, COL3A1, COL1A2, LOX, COL1A1, LOXL2, COL5A2, COL5A1
17	13	Angiogenesis	4.84E-11	0.001	22	COL4A2, SRPX2, ITGA5, SERPINE1, TGFBI, MMP19, PDGFRB, THBS1, LOXL2, MYH9, ITGB1, PLAU, FN1
17	6	Collagen Metabolic Process	6.75E-09	0.002	10	TRAM2, MMP9, MMP19, COL3A1, COL1A1, COL5A1

17	4	Collagen Biosynthetic Process	8.65E-09	0.002	6.8	TRAM2, COL3A1, COL1A1, COL5A1
17	4	Protein Heterotrimerization	4.00E-08	0.005	6.8	COL1A2, COL6A2, COL6A1, COL1A1
17	5	Cellular Response To Amino Acid Stimulus	5.70E-07	0.028	8.5	COL3A1, COL1A2, COL6A1, COL1A1, COL5A2
19	9	Neurotransmitter Secretion	1.59E-12	0.001	19	SLC17A7, GLS2, RAB3A, SYT1, STX1A, GAD2, SYN1, SYN2, SNAP25
19	6	Glutamate Secretion	1.67E-11	0.001	13	SLC17A7, GLS2, RAB3A, SYT1, STX1A, SNAP25
19	5	Synaptic Vesicle Transport	5.46E-07	0.028	10	RAB3A, SYT1, STX1A, SNAP25, SH3GL2
20	10	Neurotransmitter Transport	2.72E-10	0.001	14	SLC17A7, RAB3A, SYT1, GAD2, DOC2A, SYN1, SYN2, SNCA, SV2B, SNAP25
20	9	Generation Of A Signal Involved In Cell-Cell Signaling	1.81E-08	0.002	12	SLC17A7, RAB3A, SYT1, GAD2, EPHB6, DOC2A, SYN1, SYN2, SNAP25
20	6	Synaptic Vesicle Transport	1.53E-07	0.01	8.2	SYP, RAB3A, SYT1, DOC2A, SNCA, SNAP25
20	10	Regulation Of Neurological System Process	1.96E-07	0.014	14	SYP, RAB3A, CCK, CCKBR, NCDN, SNCA, NEUROD2, TAC1, CAMK2A, HTR2A
22	27	Response To Bacterium	8.40E-16	0.001	16	FGR, IL18, TLR1, TLR2, SLC11A1, NOD2, TNFRSF1B, MYD88, FCER1G, CD4, SERPINA1, SYK, C5AR1, CEBPB, NCF2, SOCS3, NCF1, HCK, MYO1F, HLA-B, STAT1, SOD2, LILRB1, THBD, CCR5, PLCG2, CD14
22	22	Immune Effector Process	8.65E-15	0.001	13	PTPRC, NCF1, HCK, TLR1, MYO1F, SERPING1, PRKCD, STAT6, LILRB1, C1QA, SLC11A1, C1QB, CD86, NOD2, MYD88, PLCG2, C1RL, FCER1G, CTSC, C2, CFD, SYK
22	23	Activation Of Immune Response	2.11E-14	0.001	14	FYB, PTPRC, HCK, TLR1, TLR2, NCKAP1L, SERPING1, TLR5, C1QA, C1QB, CD86, NOD2, MYD88, RPS6KA1, PLCG2, C1RL, FCER1G, CD4, C2, CFD, CD14, DUSP6, SYK
22	16	Adaptive Immune Response	4.15E-13	0.001	9.8	IL18, SERPING1, CTSS, PRKCD, CTSLL1, STAT6, C1QA, SLC11A1, C1QB, NOD2, MYD88, C1RL, FCER1G, CTSC, C2, SYK
22	20	Immune Response-Regulating Signaling Pathway	1.90E-12	0.001	12	FYB, PTPRC, FGR, HCK, TLR1, TLR2, NCKAP1L, TLR5, HLA-G, LILRB1, CD86, NOD2, MYD88, RPS6KA1, PLCG2, FCER1G, CD4, CD14, DUSP6, SYK
22	14	Defense Response To Bacterium	1.60E-11	0.001	8.5	SLC11A1, NOD2, C5AR1, MYD88, CCR5, FGR, NCF1, HCK, TLR1, TLR2, FCER1G, MYO1F, CD4, SYK
22	17	Regulation Of Immune Effector Process	3.99E-10	0.001	10	PTPRC, FGR, APIB1, HCK, TLR2, SERPING1, STAT6, LILRB1, CD86, NOD2, DOCK2, IL4R, FCER1G, CD4, C2, SASH3, SYK
22	18	Positive Regulation Of Cell Activation	6.42E-10	0.001	11	PTPRC, FGR, IL18, NCKAP1L, VAV1, HLA-G, STAT6, LILRB1, CD86, NOD2, MYD88, RPS6KA1, IL4R, MAP3K8, FCER1G, CD4, SASH3, SYK
22	17	Regulation Of Innate Immune Response	6.68E-10	0.001	10	FGR, PTPN2, SOCS3, HCK, TLR1, TLR2, MYO1F, SERPING1, TLR5, STAT1, LILRB1, CD86, NOD2, MYD88, RPS6KA1, CD14, DUSP6

22	20	Cytokine-Mediated Signaling Pathway	2.61E-09	0.001	12	PTPN2, SOCS3, HCK, CCR1, IFI30, HLA-C, HLA-B, STAT1, PRKCD, HLA-G, TRADD, STAT6, TNFRSF1B, MYD88, CCR5, IL10RA, IL4R, PYCARD, IL13RA1, CSF1R
22	8	Positive Regulation Of Tumor Necrosis Factor Production	3.02E-09	0.001	4.9	NOD2, MYD88, CCR5, IL18, TLR2, FCER1G, SASH3, CD14
22	10	Regulation Of Interleukin-6 Production	3.58E-09	0.001	6.1	NOD2, MYD88, CEBPB, CCR5, MAPK13, TLR1, TLR2, FCER1G, NCKAP1L, HLA-B
22	16	Leukocyte Migration	3.78E-09	0.001	9.8	C5AR1, HCK, CCR1, NCKAP1L, ITGB2, ITGAM, SLC7A7, SLC16A3, THBD, CCR5, ITGA5, FCER1G, COL1A1, MERTK, SYK, SPP1
22	12	Cellular Response To Biotic Stimulus	4.31E-09	0.001	7.3	LILRB1, TNFRSF1B, NOD2, MYD88, CCR5, HCK, IL18, TLR1, TLR2, STAT1, CD14, SYK
22	15	Positive Regulation Of Cytokine Production	5.27E-09	0.001	9.1	IL18, TLR2, TLR5, HLA-G, SLC11A1, NOD2, MYD88, CCR5, MAPK13, IL4R, PYCARD, FCER1G, SASH3, CD14, CSF1R
22	8	Defense Response To Gram-Positive Bacterium	5.46E-09	0.002	4.9	NOD2, C5AR1, MYD88, FGR, NCF1, HCK, TLR2, MYO1F
22	9	Positive Regulation Of Cytokine Secretion	7.53E-09	0.002	5.5	NOD2, FGR, CCR5, IL4R, TLR2, PYCARD, CD14, SYK, CSF1R
22	8	Regulation Of Phagocytosis	2.06E-08	0.002	4.9	SLC11A1, NOD2, FGR, HCK, FCER1G, NCKAP1L, MERTK, SYK
22	11	Response To Interferon-Gamma	2.09E-08	0.002	6.7	SLC11A1, PTPN2, SOCS3, HCK, IL18, IFI30, HLA-C, HLA-B, STAT1, PRKCD, HLA-G
22	5	Positive Regulation Of Gamma-Delta T Cell Activation	6.08E-08	0.006	3	LILRB1, PTPRC, NOD2, NCKAP1L, SYK
22	10	Antigen Processing And Presentation Of Exogenous Peptide Antigen Via Mhc Class I	7.77E-08	0.006	6.1	CYBB, NCF2, NCF1, NCF4, FCER1G, IFI30, HLA-C, HLA-B, CTSS, HLA-G
22	10	Regulation Of Multi-Organism Process	3.22E-07	0.019	6.1	LILRB1, DOCK2, NOD2, MYD88, CCR5, APIB1, HCK, TLR2, CD4, TIMP1
22	8	Regulation Of Alpha-Beta T Cell Activation	4.51E-07	0.024	4.9	LILRB1, PTPRC, CD86, IL4R, IL18, NCKAP1L, SASH3, SYK
22	5	Production Of Molecular Mediator Involved In Inflammatory Response	5.91E-07	0.029	3	IL4R, ALOX5AP, FCER1G, ALOX5, SYK
22	5	Respiratory Burst	9.01E-07	0.043	3	SLC11A1, CYBB, NCF2, NCF1, HCK
26	16	Regulation Of Neuron Differentiation	8.92E-09	0.002	13	PALM, RAP2A, CDK5R1, TNIK, NLGN1, SLIT1, TTC3, NTRK3, EDNRB, NOTCH1, MAPT, RAPGEF4, OLIG2, DBN1, TCF12, NKX2-2
26	7	Regulation Of Dendrite Development	7.16E-07	0.036	5.9	RAP2A, PALM, CDK5R1, TNIK, NLGN1, RAPGEF4, DBN1
27	36	M Phase Of Mitotic Cell Cycle	1.17E-49	0.001	69	KIF23, AURKA, AURKB, PTTG1, KIF2C, SPC25, CDCA8, CENPA, OIP5, NCAPG, CCNA2, ASPM, CDCA3, CENPN, CDK1, KIF11, DLGAP5, TPX2, NUSAP1, CENPF, CDC20, NDC80, BIRC5, CENPE, PBK, CDC25C, RACGAP1, UBE2C, MLF1IP, CCNB1, MAD2L1, CCNB2, SPAG5, BUB1B, UBE2S, KIF20A

27	15	Mitotic Prometaphase	3.11E-22	0.001	29	CENPN, CENPF, BIRC5, NDC80, CENPE, CDC20, AURKB, MLF1IP, CCNB1, SPC25, KIF2C, CDCA8, MAD2L1, CENPA, BUB1B
27	20	Microtubule-Based Process	2.16E-20	0.001	38	KIF23, CDK1, KIF4A, KIF11, PRC1, DLGAP5, TTK, NUSAP1, NDC80, CENPE, AURKA, AURKB, UBE2C, RACGAP1, SPC25, KIF2C, SPAG5, CENPA, BUB1B, KIF20A
27	15	Chromosome Segregation	6.72E-20	0.001	29	CCNB1, KIF2C, SPC25, MAD2L1, SPAG5, NCAPG, DLGAP5, CENPF, NUSAP1, CENPE, NDC80, BIRC5, AURKB, PTTG1, TOP2A
27	12	Spindle Organization	2.65E-17	0.001	23	KIF23, SPC25, KIF11, PRC1, SPAG5, TTK, BUB1B, AURKA, NDC80, AURKB, RACGAP1, UBE2C
27	16	Regulation Of Cell Cycle Arrest	6.82E-16	0.001	31	CDK1, DTL, FOXM1, TTK, CENPF, BIRC5, CDC20, MCM2, UBE2C, CDC25C, CCNB1, MAD2L1, CCNB2, BUB1B, CCNA2, TOP2A
27	16	Regulation Of Mitotic Cell Cycle	8.71E-15	0.001	31	CDK1, DLGAP5, TPX2, TTK, NUSAP1, CENPF, BIRC5, AURKA, CDC20, UBE2C, CDC25C, CCNB1, MAD2L1, BUB1B, CCNA2, TOP2A
27	8	Mitotic Spindle Organization	1.52E-13	0.001	15	KIF23, SPC25, KIF11, PRC1, TTK, NDC80, AURKB, RACGAP1
27	8	Spindle Checkpoint	2.14E-13	0.001	15	CCNB1, MAD2L1, TTK, CENPF, BUB1B, BIRC5, CDC20, UBE2C
27	10	Anaphase-Promoting Complex-Dependent Proteasomal Ubiquitin-Dependent Protein Catabolic Process	4.18E-13	0.001	19	CCNB1, CDK1, MAD2L1, BUB1B, AURKA, CDC20, PTTG1, AURKB, UBE2C, UBE2S
27	10	Regulation Of Nuclear Division	4.18E-13	0.001	19	MAD2L1, DLGAP5, TTK, CENPF, BUB1B, NUSAP1, AURKA, CDC20, UBE2C, CDC25C
27	7	Regulation Of Mitotic Metaphase/Anaphase Transition	3.62E-11	0.001	13	MAD2L1, DLGAP5, TTK, CENPF, BUB1B, CDC20, UBE2C
27	9	Dna Packaging	4.86E-10	0.001	17	CDK1, CENPN, NCAPG, CENPA, OIP5, NUSAP1, MCM2, TOP2A, MLF1IP
27	9	G2/M Transition Of Mitotic Cell Cycle	1.76E-09	0.001	17	CCNB1, CDK1, CCNB2, FOXM1, BIRC5, CDC25C, TOP2A, CCNA2, MELK
27	8	Protein-Dna Complex Assembly	3.24E-09	0.001	15	CENPN, CENPA, OIP5, CENPF, CENPE, MCM2, MLF1IP, RAD51
27	12	Interphase Of Mitotic Cell Cycle	3.25E-09	0.001	23	CCNB1, CDK1, GINS2, CCNB2, FOXM1, CENPF, BIRC5, MCM2, CDC25C, TOP2A, CCNA2, MELK
27	9	Organelle Localization	4.13E-09	0.001	17	CCNB1, CENPA, DLGAP5, CENPF, NUSAP1, CENPE, NDC80, BIRC5, ASPM
27	5	Chromosome Localization	7.64E-09	0.002	9.6	CCNB1, DLGAP5, CENPF, CENPE, BIRC5
27	5	Regulation Of Chromosome Segregation	1.04E-08	0.002	9.6	CCNB1, KIF2C, SPAG5, AURKB, RACGAP1
27	7	Cytokinesis	1.09E-08	0.002	13	KIF23, PRC1, NUSAP1, BIRC5, AURKB, RACGAP1, KIF20A
27	8	Positive Regulation Of Cell Cycle Process	1.50E-07	0.01	15	KIF23, DLGAP5, NUSAP1, AURKA, BIRC5, AURKB, RACGAP1, UBE2C
27	8	Dna Replication	4.31E-07	0.022	15	CDK1, GINS2, DTL, CENPF, MCM2, CDC25C, TOP2A, RAD51
27	8	Cellular Protein Complex Assembly	4.69E-07	0.026	15	KIF23, CENPA, CENPF, CENPE, AURKB, RACGAP1, UBE2C, UBE2S

27	4	Chromatin Remodeling At Centromere	5.58E-07	0.028	7.7	CENPN, CENPA, OIP5, MLF1IP
27	6	Inositol Lipid-Mediated Signaling	8.47E-07	0.04	12	SPAG5, BUB1B, AURKA, NDC80, UBE2C, TOP2A
28	10	Response To Bacterium	3.72E-07	0.021	19	LILRB1, TNFRSF1B, C5AR1, HCK, TLR1, MYO1F, SERPINA1, CD4, TGFB1, SYK
29	13	Mitosis	8.77E-15	0.001	43	KIF2C, SPC25, CCNB2, NEK2, CENPA, OIP5, DLGAP5, KIF15, BUB1B, BIRC5, AURKB, MLF1IP, DSCC1
29	12	Interphase Of Mitotic Cell Cycle	2.94E-12	0.001	40	CDC7, CDC45, CCNB2, POLE2, NEK2, CDKN2C, PCNA, BIRC5, ORC6, MCM2, CDKN3, TCF3
29	7	Chromosome Segregation	4.24E-09	0.001	23	KIF2C, SPC25, NEK2, DLGAP5, BIRC5, AURKB, DSCC1
29	8	Dna Replication	5.20E-09	0.001	27	CDC7, CDC45, POLE2, PCNA, ORC6, MCM2, RNASEH2A, DSCC1
29	9	Microtubule-Based Process	1.16E-08	0.002	30	KIF2C, SPC25, NEK2, CENPA, DLGAP5, KIF15, TTK, BUB1B, AURKB
29	8	Cell Cycle Checkpoint	2.90E-08	0.003	27	CDC7, CDC45, CCNB2, TTK, BUB1B, BIRC5, ORC6, MCM2
29	5	Spindle Organization	4.85E-07	0.026	17	SPC25, NEK2, TTK, BUB1B, AURKB
30	33	Positive Regulation Of Immune Response	2.47E-25	0.001	26	HLA-DQB1, C3AR1, C3, TLR1, TLR2, TLR5, C1S, HLA-DMB, HLA-DMA, CD74, SLC11A1, FCER1G, CD4, HLA-DPB1, C2, CFD, SYK, FYB, PTPRC, PTPN6, LYN, HCK, NCKAP1L, C1QA, C1QB, CD86, PLCG2, MNDA, HLA-DPA1, VSIG4, SASH3, HLA-DRA, LCP2
30	30	Activation Of Immune Response	3.80E-25	0.001	23	HLA-DQB1, C3AR1, C3, TLR1, TLR2, TLR5, C1S, HLA-DMB, HLA-DMA, FCER1G, CD4, HLA-DPB1, C2, CFD, SYK, FYB, PTPRC, PTPN6, LYN, HCK, NCKAP1L, C1QA, C1QB, CD86, PLCG2, MNDA, HLA-DPA1, VSIG4, HLA-DRA, LCP2
30	24	Immune Effector Process	1.97E-19	0.001	19	HLA-DQB1, PTPRC, PTPN6, LYN, C3, HCK, TLR1, MYO1F, C1S, HLA-DMA, CD74, C1QA, LILRB1, SLC11A1, C1QB, CD86, PLCG2, FCER1G, CTSC, C2, VSIG4, CFD, LCP1, SYK
30	20	Immune Response-Regulating Cell Surface Receptor Signaling Pathway	2.88E-19	0.001	16	FYB, HLA-DQB1, PTPRC, PTPN6, C3AR1, LYN, TLR2, NCKAP1L, HLA-DMB, HLA-DMA, LILRB1, PLCG2, MNDA, FCER1G, HLA-DPA1, CD4, HLA-DPB1, HLA-DRA, LCP2, SYK
30	20	Positive Regulation Of T Cell Activation	1.09E-16	0.001	16	HLA-DQB1, PTPRC, PTPN6, LYN, AIF1, IL18, NCKAP1L, HLA-DMB, HLA-DMA, VAV1, CD74, LILRB1, CD86, CORO1A, HLA-DPA1, CD4, HLA-DPB1, SASH3, HLA-DRA, SYK
30	24	Regulation Of Leukocyte Activation	2.84E-15	0.001	19	HLA-DQB1, PTPRC, PTPN6, LYN, AIF1, IL18, NCKAP1L, HLA-DMB, SAMS1, HLA-DMA, VAV1, CD74, LILRB1, CD86, CORO1A, MNDA, FCER1G, HLA-DPA1, CD4, HLA-DPB1, VSIG4, SASH3, HLA-DRA, SYK
30	9	Antigen Processing And Presentation Of Peptide Or Polysaccharide Antigen Via Mhc Class Ii	8.59E-15	0.001	7	HLA-DQB1, FCER1G, IFI30, HLA-DPA1, HLA-DPB1, HLA-DMB, HLA-DMA, CD74, HLA-DRA

30	16	Adaptive Immune Response	9.32E-15	0.001	12	HLA-DQB1, C3AR1, C3, IL18, CTSS, C1S, HLA-DMA, CD74, CTSL1, C1QA, SLC11A1, C1QB, FCER1G, CTSC, C2, SYK
30	17	Antigen Processing And Presentation	2.86E-14	0.001	13	HLA-DQB1, NCF2, NCF4, IFI30, CTSS, HLA-DMB, HLA-DMA, CD74, CTSL1, CYBA, SLC11A1, CYBB, FCGR1A, FCER1G, HLA-DPA1, HLA-DPB1, HLA-DRA
30	13	Response To Interferon-Gamma	5.93E-12	0.001	10	HLA-DQB1, PTPN6, SLC11A1, AIF1, HCK, IL18, FCGR1A, IFI30, HLA-DPA1, HLA-DPB1, HLA-DMB, HLA-DMA, HLA-DRA
30	16	Regulation Of Immune Effector Process	9.11E-11	0.001	12	PTPRC, PTPN6, LYN, C3, HCK, TLR2, CD74, LILRB1, CD86, CD37, DOCK2, FCER1G, CD4, C2, SASH3, SYK
30	19	Response To Bacterium	1.29E-10	0.001	15	C5AR1, LYN, NCF2, HCK, IL18, TLR1, LYZ, TLR2, MYO1F, LILRB1, SLC11A1, TNFRSF1B, CCR5, STAB1, PLCG2, FCER1G, SERPINA1, CD4, SYK
30	12	Defense Response To Bacterium	1.84E-10	0.001	9.3	SLC11A1, C5AR1, CCR5, STAB1, HCK, TLR1, LYZ, TLR2, MYO1F, FCER1G, CD4, SYK
30	18	Leukocyte Activation	9.68E-10	0.001	14	PTPRC, LYN, AIF1, TLR1, MYO1F, HLA-DMA, VAV1, CD74, LILRB1, SLC11A1, CD86, DOCK2, PLCG2, FCER1G, CD4, LCP1, LCP2, SYK
30	18	Cytokine-Mediated Signaling Pathway	1.89E-09	0.001	14	HLA-DQB1, PTPN6, HCK, CCR1, IFI30, HLA-DMB, HLA-DMA, CD74, TNFRSF1B, CCR5, IL10RA, FCGR1A, PYCARD, HLA-DPA1, HLA-DPB1, IL13RA1, HLA-DRA, CSF1R
30	14	Leukocyte Migration	9.43E-09	0.002	11	PTPN6, C5AR1, LYN, SELL, HCK, CCR1, NCKAP1L, ITGB2, ITGAM, SLC7A7, CORO1A, CCR5, FCER1G, SYK
30	6	T Cell Selection	1.01E-07	0.008	4.7	PTPRC, DOCK2, CD4, HLA-DMA, CD74, SYK
30	12	Positive Regulation Of Cytokine Production	1.55E-07	0.01	9.3	SLC11A1, C3AR1, CCR5, C3, IL18, TLR2, PYCARD, FCER1G, TLR5, CD74, SASH3, CSF1R
30	5	Production Of Molecular Mediator Involved In Inflammatory Response	1.79E-07	0.013	3.9	LYN, ALOX5AP, FCER1G, ALOX5, SYK
30	9	Humoral Immune Response	2.28E-07	0.015	7	HLA-DQB1, C1QA, C1QB, C3, C1S, C2, VSIG4, TREM2, CFD
30	5	Respiratory Burst	2.75E-07	0.018	3.9	CYBA, SLC11A1, CYBB, NCF2, HCK
30	8	Myeloid Leukocyte Activation	3.01E-07	0.019	6.2	SLC11A1, LYN, AIF1, TLR1, MYO1F, FCER1G, SYK, LCP2
30	8	Regulation Of Cytokine Secretion	3.41E-07	0.019	6.2	LILRB1, LYN, CCR5, TLR2, PYCARD, SRGN, SYK, CSF1R
30	9	Cellular Response To Biotic Stimulus	6.10E-07	0.03	7	LILRB1, TNFRSF1B, LYN, CCR5, HCK, IL18, TLR1, TLR2, SYK
37	24	Mitosis	3.01E-28	0.001	50	KIF23, CDC6, KIF11, NEK2, KIF15, TPX2, CENPF, BIRC5, CENPE, AURKB, CDK2, KIF2C, CDCA8, NCAPH, MAD2L1, SPAG5, CENPA, OIP5, NCAPG, BUB1, BUB1B, CCNA2, ASPM, CDCA3
37	16	Microtubule-Based Process	3.10E-15	0.001	33	KIF14, KIF23, KIF4A, KIF11, NEK2, KIF15, TTK, CENPE, AURKB, BRCA1, CDK2, KIF2C, PLK4, CENPA, SPAG5, BUB1B

37	12	Chromosome Segregation	3.62E-15	0.001	25	KIF2C, NCAPH, MAD2L1, NEK2, SPAG5, NCAPG, BUB1, CENPF, CENPE, BIRC5, AURKB, BRCA1
37	7	Regulation Of Chromosome Segregation	3.81E-13	0.001	15	CDC6, KIF2C, NEK2, SPAG5, BUB1, AURKB, ECT2
37	12	Cell Cycle Checkpoint	2.08E-11	0.001	25	RFC5, CDC6, MAD2L1, BUB1, TTK, CENPF, BUB1B, CHEK1, BIRC5, CCNA2, CDK2, BRCA1
37	12	Regulation Of Mitotic Cell Cycle	3.99E-10	0.001	25	CDC6, MAD2L1, NEK2, TPX2, BUB1, TTK, CENPF, BUB1B, CHEK1, BIRC5, CCNA2, CDK2
37	8	Regulation Of Nuclear Division	4.18E-10	0.001	17	CDC6, MAD2L1, NEK2, BUB1, TTK, CENPF, BUB1B, CHEK1
37	8	Negative Regulation Of Cell Cycle Process	7.23E-10	0.001	17	CDC6, MAD2L1, BUB1, TTK, CENPF, BUB1B, CHEK1, BRCA1
37	6	Spindle Checkpoint	1.21E-09	0.001	13	MAD2L1, BUB1, TTK, CENPF, BUB1B, BIRC5
37	6	Negative Regulation Of Mitosis	1.51E-09	0.001	13	MAD2L1, BUB1, TTK, CENPF, BUB1B, CHEK1
37	7	Spindle Organization	5.68E-09	0.002	15	KIF23, KIF11, NEK2, SPAG5, TTK, BUB1B, AURKB
37	7	Regulation Of Microtubule Cytoskeleton Organization	7.88E-09	0.002	15	PLK4, NEK2, SPAG5, TPX2, CHEK1, ECT2, BRCA1
37	7	Organelle Assembly	1.45E-08	0.002	15	KIF23, KIF11, NEK2, CENPA, CENPF, CENPE, AURKB
37	5	Centrosome Cycle	4.59E-08	0.005	10	PLK4, KIF11, NEK2, CDK2, BRCA1
37	8	Positive Regulation Of Cell Cycle Process	9.24E-08	0.006	17	KIF23, CDC6, PLK4, BIRC5, AURKB, ECT2, CDK2, BRCA1
37	4	Regulation Of Cell Cycle Cytokinesis	1.71E-07	0.013	8.3	KIF23, CDC6, AURKB, ECT2
40	23	Cell Cycle Checkpoint	6.49E-22	0.001	28	CDC7, DTL, KNTC1, TTK, SOX4, CENPF, CHEK1, MCM2, MCM3, MCM4, BRCA1, CDK2, CDT1, RFC5, CCNE2, RFC4, MCM7, PLK1, BUB1, BUB1B, WAC, TOP2A, BUB3
40	21	Dna Replication	3.26E-21	0.001	25	CDC7, SSRP1, DTL, NASP, CENPF, BRCA2, CHEK1, MCM2, MCM3, MCM4, BRCA1, CDK2, CDT1, POLD3, RFC5, RFC4, MCM7, POLD1, CHAF1A, TOP2A, FEN1
40	22	Dna Repair	4.48E-17	0.001	27	EXO1, SSRP1, DTL, MSH5, TRIM28, BRCA2, CHEK1, RAD54L, SMC3, BRCA1, CDK2, POLD3, RFC5, RFC4, FANCI, POLD1, SFPQ, MUS81, CHAF1A, TOP2A, FEN1, FANCC
40	20	Mitosis	2.67E-16	0.001	24	KIF11, KIF15, TPX2, KNTC1, CENPF, NDC80, NCAPD3, SMC3, CDK2, KIF2C, CDCA8, NCAPH, TIMELESS, PLK1, SPAG5, NCAPG, BUB1, BUB1B, ASPM, BUB3
40	21	Interphase Of Mitotic Cell Cycle	7.54E-16	0.001	25	CDC7, SKP2, CENPF, CHEK1, MCM2, MCM3, MCM4, CDK2, CDT1, POLD3, RFC5, CCNE2, PLK4, RFC4, MCM7, PLK1, POLD1, TUBG1, TOP2A, FEN1, MELK
40	14	Chromosome Segregation	5.96E-15	0.001	17	MSH5, BRCA2, CENPF, NDC80, NCAPD3, BRCA1, SMC3, KIF2C, NCAPH, NCAPG, SPAG5, BUB1, TOP2A, BUB3

40	19	Microtubule-Based Process	1.68E-14	0.001	23	KIF4A, KIF11, KIF5B, PRC1, KIF15, TTK, BRCA2, NDC80, TACC3, BRCA1, CDK2, SMC3, KIF2C, PLK4, PLK1, SPAG5, BUB1B, TUBG1, BUB3
40	9	Dna Strand Elongation Involved In Dna Replication	5.15E-13	0.001	11	POLD3, RFC5, RFC4, MCM7, POLD1, MCM2, MCM3, MCM4, FEN1
40	12	S Phase Of Mitotic Cell Cycle	8.91E-12	0.001	14	POLD3, RFC5, RFC4, MCM7, POLD1, SKP2, MCM2, MCM3, MCM4, CDK2, FEN1, CDT1
40	13	Dna Recombination	1.32E-11	0.001	16	EXO1, MSH5, BRCA2, RAD54L, BRCA1, RFC5, POLD3, RFC4, POLD1, SFPQ, MUS81, TOP2A, FEN1
40	11	Meiotic Cell Cycle	8.49E-11	0.001	13	EXO1, MKI67, PLK1, MSH5, BRCA2, TUBG1, TOP2A, RAD54L, CDK2, BUB3, SMC3
40	15	Regulation Of Mitotic Cell Cycle	3.44E-10	0.001	18	TPX2, KNTC1, TTK, BRCA2, SOX4, CENPF, CHEK1, CDK2, CDT1, PLK1, POLD1, BUB1, BUB1B, TOP2A, BUB3
40	9	Spindle Organization	4.91E-10	0.001	11	KIF11, PRC1, SPAG5, TTK, BUB1B, NDC80, TUBG1, TACC3, SMC3
40	9	Negative Regulation Of Cell Cycle Process	3.05E-09	0.001	11	BUB1, TTK, CENPF, BUB1B, CHEK1, BUB3, BRCA1, SMC3, CDT1
40	6	Regulation Of Mitotic Metaphase/Anaphase Transition	5.39E-08	0.005	7.2	PLK1, BUB1, TTK, CENPF, BUB1B, BUB3
40	6	Centrosome Organization	3.80E-07	0.021	7.2	PLK4, KIF11, PLK1, BRCA2, CDK2, BRCA1
41	15	Response To Bacterium	2.60E-11	0.001	22	IL6, CEBPB, C5AR1, S100A8, TLR2, SOD2, SLC11A1, NOD2, TNFRSF1B, THBD, CCL20, STAB1, PLA2G2A, TNFAIP3, CD14
41	5	Response To Peptidoglycan	1.52E-08	0.002	7.5	IL6, NOD2, C5AR1, TLR2, TNFAIP3
41	10	Regulation Of Inflammatory Response	1.63E-08	0.002	15	IER3, IL6, TNFRSF1B, NOD2, MAPK13, TLR2, PLA2G2A, C2, BIRC3, TNFAIP3
41	8	Defense Response To Bacterium	3.24E-08	0.004	12	SLC11A1, IL6, NOD2, C5AR1, CCL20, STAB1, TLR2, PLA2G2A
41	6	Regulation Of Interleukin-6 Production	6.31E-07	0.031	9	IL6, NOD2, CEBPB, MAPK13, TLR2, TNFAIP3
43	24	Mitosis	1.17E-26	0.001	44	KIF23, CENPF, CDC20, BIRC5, NDC80, AURKA, AURKB, PBK, PTTG1, UBE2C, RACGAP1, MLF1IP, CCNB1, KIF2C, SPC25, MAD2L1, CCNB2, CENPA, OIP5, NCAPG, BUB1B, FBXO5, ZWILCH, ASPM
43	13	Mitotic Prometaphase	4.35E-18	0.001	24	CCNB1, KIF2C, SPC25, MAD2L1, CENPA, BUB1B, CENPF, CDC20, NDC80, BIRC5, AURKB, ZWILCH, MLF1IP
43	11	Spindle Organization	3.50E-15	0.001	20	KIF23, SPC25, CKS2, FBXO5, TTK, BUB1B, AURKA, NDC80, AURKB, RACGAP1, UBE2C
43	17	Interphase Of Mitotic Cell Cycle	8.31E-15	0.001	31	GINS1, CKS1B, GINS2, DBF4, CENPF, BIRC5, MCM2, CDKN3, CCNB1, TYMS, RFC4, CCNB2, PCNA, FBXO5, KPNA2, TOP2A, MELK
43	15	Cell Cycle Checkpoint	1.07E-14	0.001	28	DTL, DBF4, TTK, CENPF, BIRC5, CDC20, MCM2, UBE2C, CCNB1, MAD2L1, CCNB2, RFC4, BUB1B, ZWILCH, TOP2A
43	8	Spindle Checkpoint	3.47E-13	0.001	15	CCNB1, MAD2L1, TTK, CENPF, BUB1B, BIRC5, CDC20, UBE2C

43	15	Microtubule-Based Process	4.79E-13	0.001	28	KIF23, KIF4A, TTK, NDC80, AURKA, AURKB, UBE2C, RACGAP1, SPC25, KIF2C, CENPA, CKS2, BUB1B, FBXO5, KPNA2
43	11	Chromosome Segregation	6.27E-13	0.001	20	CCNB1, KIF2C, SPC25, MAD2L1, NCAPG, CENPF, NDC80, BIRC5, PTTG1, AURKB, TOP2A
43	12	Dna Replication	7.08E-12	0.001	22	GIN1, GINS2, TYMS, RFC4, DTL, DBF4, PCNA, CENPF, MCM2, RNASEH2A, TOP2A, RAD51
43	7	Negative Regulation Of Mitotic Metaphase/Anaphase Transition	9.62E-12	0.001	13	MAD2L1, FBXO5, TTK, CENPF, BUB1B, CDC20, UBE2C
43	9	Anaphase-Promoting Complex-Dependent Proteasomal Ubiquitin-Dependent Protein Catabolic Process	3.17E-11	0.001	17	CCNB1, MAD2L1, FBXO5, BUB1B, AURKA, CDC20, PTTG1, AURKB, UBE2C
43	9	Inositol Lipid-Mediated Signaling	5.22E-11	0.001	17	TYMS, RFC4, CKS2, PCNA, BUB1B, AURKA, NDC80, UBE2C, TOP2A
43	12	Regulation Of Mitotic Cell Cycle	1.72E-09	0.001	22	CCNB1, MAD2L1, FBXO5, TTK, CENPF, BUB1B, AURKA, BIRC5, CDC20, ZWILCH, UBE2C, TOP2A
43	5	Regulation Of Chromosome Segregation	1.41E-08	0.002	9.3	CCNB1, KIF2C, AURKB, RACGAP1, ECT2
43	7	Protein-Dna Complex Assembly	1.28E-07	0.009	13	CENPA, OIP5, H2AFZ, CENPF, MCM2, MLF1IP, RAD51
43	5	Dna Strand Elongation Involved In Dna Replication	2.67E-07	0.018	9.3	GIN1, GINS2, RFC4, PCNA, MCM2
43	4	Regulation Of Cell Cycle Cytokinesis	2.79E-07	0.018	7.4	KIF23, AURKB, RACGAP1, ECT2
43	8	Dna Conformation Change	4.01E-07	0.021	15	NCAPG, CENPA, OIP5, H2AFZ, MCM2, TOP2A, MLF1IP, RAD51
43	6	Organelle Assembly	8.69E-07	0.04	11	KIF23, CENPA, FBXO5, CENPF, AURKB, RACGAP1
46	10	Rna Splicing	3.30E-07	0.019	17	FUS, RBM4B, PRPF4B, USP39, PCBP2, RBM4, WBP11, DHX35, CSTF1, SRPK1
49	14	Immune Response-Regulating Signaling Pathway	9.25E-16	0.001	35	FYB, PTPRC, HCK, TLR1, TLR2, TLR5, TLR7, HLA-DMA, LILRB1, CD86, MNDA, CD4, LCP2, SYK
49	7	Regulation Of Cytokine Biosynthetic Process	7.47E-09	0.002	18	LILRB1, CD86, TLR1, TLR2, CD4, TLR7, SYK
49	9	Immune Effector Process	8.38E-09	0.002	23	LILRB1, PTPRC, CD86, HCK, TLR1, MYO1F, HLA-DMA, TLR7, SYK
49	10	Leukocyte Activation	1.81E-08	0.002	25	LILRB1, PTPRC, CD86, TLR1, MYO1F, CD4, HLA-DMA, TLR7, SYK, LCP2
49	9	Regulation Of Lymphocyte Activation	9.45E-08	0.006	23	LILRB1, PTPRC, CD86, IL18, MNDA, CD4, SAMSN1, HLA-DMA, SYK
49	4	Positive Regulation Of Interleukin-8 Production	1.55E-07	0.01	10	IL18, TLR2, TLR5, TLR7
49	7	Regulation Of Peptidyl-Tyrosine Phosphorylation	2.74E-07	0.018	18	PTPRC, HCLS1, ITGB2, CD4, SAMSN1, SYK, CSF1R
49	6	Defense Response To Bacterium	4.61E-07	0.024	15	HCK, TLR1, TLR2, MYO1F, CD4, SYK

49	6	Cellular Response To Biotic Stimulus	5.65E-07	0.028	15	LILRB1, HCK, IL18, TLR1, TLR2, SYK
49	5	Regulation Of Alpha-Beta T Cell Activation	7.39E-07	0.037	13	LILRB1, PTPRC, CD86, IL18, SYK
49	4	T Cell Selection	8.13E-07	0.038	10	PTPRC, CD4, HLA-DMA, SYK
51	24	Activation Of Immune Response	4.42E-22	0.001	27	FYB, PTPRC, C3AR1, LYN, LY96, HCK, TLR1, TLR2, NCKAP1L, HLA-DMB, TLR7, HLA-DQA1, C1QA, C1QB, CD86, RPS6KA1, MNDA, FCER1G, CD4, HLA-DPB1, VSIG4, CD14, LCP2, SYK
51	22	Immune Response-Regulating Signaling Pathway	1.63E-20	0.001	25	FYB, PTPRC, C3AR1, LYN, LY96, HCK, TLR1, TLR2, NCKAP1L, HLA-DMB, TLR7, HLA-DQA1, LILRB1, CD86, RPS6KA1, MNDA, FCER1G, CD4, HLA-DPB1, CD14, LCP2, SYK
51	19	Regulation Of Leukocyte Activation	1.43E-13	0.001	22	PTPRC, LYN, AIF1, IL18, NCKAP1L, HLA-DMB, SAMSN1, HLA-DQA1, LILRB1, CD86, CORO1A, HMOX1, MNDA, FCER1G, CD4, HLA-DPB1, VSIG4, SASH3, SYK
51	17	Positive Regulation Of Cell Activation	1.90E-13	0.001	19	PTPRC, LYN, PLEK, AIF1, IL18, NCKAP1L, HLA-DMB, HLA-DQA1, LILRB1, CD86, CORO1A, RPS6KA1, FCER1G, CD4, HLA-DPB1, SASH3, SYK
51	15	Immune Effector Process	5.50E-12	0.001	17	PIK3CG, PTPRC, LYN, HCK, TLR1, MYO1F, APOBEC3G, TLR7, LILRB1, C1QA, C1QB, CD86, FCER1G, VSIG4, SYK
51	17	Response To Bacterium	1.50E-11	0.001	19	TSPO, LYN, NCF2, RNASE3, LY96, HCK, IL18, TLR1, LYZ, TLR2, MYO1F, LILRB1, FCER1G, SERPINA1, CD4, CD14, SYK
51	7	Myeloid Cell Activation Involved In Immune Response	6.15E-10	0.001	8	PIK3CG, LYN, TLR1, MYO1F, FCER1G, TLR7, SYK
51	9	Myeloid Leukocyte Activation	6.20E-10	0.001	10	PIK3CG, LYN, AIF1, TLR1, MYO1F, FCER1G, TLR7, SYK, LCP2
51	13	Regulation Of Immune Effector Process	6.21E-10	0.001	15	PTPRC, LYN, HCK, TLR2, APOBEC3G, LILRB1, CD86, DOCK2, HMOX1, FCER1G, CD4, SASH3, SYK
51	10	Cellular Response To Biotic Stimulus	1.29E-09	0.001	11	LILRB1, TSPO, LYN, LY96, HCK, IL18, TLR1, TLR2, CD14, SYK
51	14	Leukocyte Activation	1.32E-08	0.002	16	PIK3CG, LILRB1, PTPRC, DOCK2, CD86, LYN, AIF1, TLR1, FCER1G, MYO1F, CD4, TLR7, SYK, LCP2
51	8	Regulation Of Tumor Necrosis Factor Production	1.33E-08	0.002	9.1	LILRB1, TSPO, IL18, TLR1, TLR2, FCER1G, SASH3, CD14
51	9	Defense Response To Bacterium	1.70E-08	0.002	10	RNASE3, HCK, TLR1, LYZ, TLR2, MYO1F, FCER1G, CD4, SYK
51	8	Regulation Of Cytokine Secretion	1.73E-08	0.002	9.1	LILRB1, LYN, TLR2, PYCARD, CD14, SRGN, SYK, CSF1R
51	10	Antigen Processing And Presentation	3.05E-08	0.003	11	CYBA, CYBB, NCF2, FCGR1A, NCF4, FCER1G, CTSS, HLA-DPB1, HLA-DMB, HLA-DQA1
51	5	Respiratory Burst	4.04E-08	0.005	5.7	PIK3CG, CYBA, CYBB, NCF2, HCK
51	11	Exocytosis	8.79E-08	0.006	13	PIK3CG, PLEK, LYN, HCK, CCR1, SCIN, MYO1F, FCER1G, SERPINA1, SRGN, SYK
51	7	Regulation Of Alpha-Beta T Cell Activation	9.12E-08	0.006	8	LILRB1, PTPRC, CD86, IL18, NCKAP1L, SASH3, SYK
51	7	Positive Regulation Of Cytokine Biosynthetic Process	9.12E-08	0.006	8	CD86, HMOX1, TLR1, TLR2, CD4, TLR7, SYK

51	4	Positive Regulation Of Gamma-Delta T Cell Activation	3.66E-07	0.021	4.5	LILRB1, PTPRC, NCKAP1L, SYK
51	9	Positive Regulation Of Response To External Stimulus	6.33E-07	0.031	10	PIK3CG, C3AR1, AIF1, CCR1, IL18, TLR2, FCER1G, NCKAP1L, TLR7
51	8	Adaptive Immune Response	6.81E-07	0.034	9.1	PIK3CG, C1QA, C1QB, C3AR1, IL18, FCER1G, CTSS, SYK
51	7	Leukocyte Chemotaxis	8.26E-07	0.038	8	PIK3CG, CORO1A, CCR1, FCER1G, NCKAP1L, ITGB2, SYK
51	10	Leukocyte Migration	8.36E-07	0.039	11	PIK3CG, CORO1A, LYN, HCK, CCR1, FCER1G, NCKAP1L, ITGB2, SYK, SLC7A7