

Table S14. Ovarian cancer modules with enriched GO terms.

Module ID	m	k	x	Gene Ontology	p-value	Genes	p-value
2	69	60	5	Hemopoiesis	2.28E-05	MMP9, BLNK, CD4, LCK, LYN	2.09E-03
2	74	60	5	Immune System Development	3.21E-05	MMP9, BLNK, CD4, LCK, LYN	2.27E-03
2	233	60	8	Defense Response	1.87E-05	CXCL11, CXCL9, BLNK, CXCL10, CLEC5A, LSP1, CCR5, TYROBP	1.93E-03
2	128	60	8	Behavior	2.11E-07	CXCL13, CXCL11, CXCL9, CXCL10, DOCK2, CCR5, ITGB2, PLAUR	4.34E-05
2	80	60	8	Locomotory Behavior	5.14E-09	CXCL13, CXCL11, CXCL9, CXCL10, DOCK2, CCR5, ITGB2, PLAUR	1.41E-06
2	34	60	3	Leukocyte Differentiation	6.30E-04	MMP9, CD4, LCK	2.78E-02
2	113	60	5	Inflammatory Response	2.41E-04	CXCL11, CXCL9, BLNK, CXCL10, CCR5	1.33E-02
2	261	60	10	Response To Chemical Stimulus	5.59E-07	CXCL13, CXCL11, CXCL9, CXCL10, DOCK2, CCR5, ITGB2, PLAUR, LCK, LYN	9.23E-05
2	207	60	11	Immune Response	4.87E-09	CXCL13, IL18, BLNK, CD96, POU2AF1, AIM2, PSMB10, LCP2, CCR5, ARHGDIB, CD74	1.41E-06
2	71	60	5	Hemopoietic Or Lymphoid Organ Development	2.62E-05	MMP9, BLNK, CD4, LCK, LYN	2.16E-03
2	290	60	17	Immune System Process	8.52E-14	CXCL13, MMP9, IL18, BLNK, CD96, POU2AF1, AIM2, PSMB10, LCP2, DOCK2, CCR5, ITGB2, ARHGDIB, CD4, CD74, LCK, LYN	7.03E-11
2	39	60	3	T Cell Activation	9.46E-04	IL18, CD4, LCK	3.49E-02
2	269	60	9	Response To External Stimulus	6.61E-06	CXCL13, CXCL11, CXCL9, BLNK, CXCL10, DOCK2, CCR5, ITGB2, PLAUR	7.79E-04
2	226	60	6	Protein Amino Acid Phosphorylation	8.79E-04	HCK, ITGB2, BTK, LCK, LYN, FGR	3.45E-02
2	168	60	5	Response To Wounding	1.46E-03	CXCL11, CXCL9, BLNK, CXCL10, CCR5	4.65E-02
2	29	60	3	Humoral Immune Response	3.92E-04	BLNK, POU2AF1, PSMB10	1.90E-02
2	253	60	6	Phosphorylation	1.57E-03	HCK, ITGB2, BTK, LCK, LYN, FGR	4.80E-02
2	52	60	5	Cellular Defense Response	5.63E-06	CXCL9, CLEC5A, LSP1, CCR5, TYROBP	7.74E-04
3	170	35	8	Cell Cycle Process	2.28E-08	PLK1, E2F1, KIF22, CDC6, TUBG1, PRC1, BUB1, CDK2	9.39E-06
3	134	35	7	Mitotic Cell Cycle	9.36E-08	PLK1, E2F1, KIF22, CDC6, PRC1, BUB1, CDK2	2.57E-05
3	153	35	6	Cell Cycle Phase	4.57E-06	PLK1, E2F1, KIF22, CDC6, BUB1, CDK2	9.42E-04
3	43	35	3	Cell Cycle Checkpoint Go 000075	2.56E-04	CCNE2, CDC6, BUB1	2.64E-02
3	13	35	3	G1 Phase Of Mitotic Cell Cycle	6.31E-06	E2F1, CDC6, CDK2	1.04E-03
3	93	35	4	Dna Replication	1.45E-04	MCM2, CDC6, CDK2, MCM7	1.71E-02
3	15	35	3	G1 Phase	9.99E-06	E2F1, CDC6, CDK2	1.37E-03
3	276	35	10	Cell Cycle Go 0007049	3.76E-09	CCNE2, PLK1, MCM2, E2F1, KIF22, CDC6, TUBG1, PRC1, BUB1, CDK2	3.11E-06

3	57	35	3	Interphase Of Mitotic Cell Cycle	5.91E-04	E2F1, CDC6, CDK2	4.88E-02
6	234	34	7	Dna Metabolic Process	3.29E-06	CHEK1, POLE2, CDK2, PRIM1, FEN1, MCM2, MSH6	3.88E-04
6	134	34	4	Regulation Of Kinase Activity	5.25E-04	CHEK1, CCNE2, CDC25A, CDKN3	2.69E-02
6	133	34	4	Regulation Of Protein Kinase Activity	5.10E-04	CHEK1, CCNE2, CDC25A, CDKN3	2.69E-02
6	99	34	4	M Phase	1.65E-04	CHEK1, KIF15, KNTC1, BUB1	1.13E-02
6	136	34	4	Regulation Of Transferase Activity	5.55E-04	CHEK1, CCNE2, CDC25A, CDKN3	2.69E-02
6	63	34	4	Interphase	2.80E-05	CDC7, TIMELESS, CDK2, CDKN3	2.10E-03
6	170	34	10	Cell Cycle Process	2.36E-11	CHEK1, CDC7, TIMELESS, CDK2, KIF15, KNTC1, KIF23, BUB1, RACGAP1, CDKN3	9.74E-09
6	134	34	7	Mitotic Cell Cycle	7.56E-08	CDC7, CDK2, KIF15, KNTC1, KIF23, BUB1, CDKN3	1.04E-05
6	153	34	8	Cell Cycle Phase	7.76E-09	CHEK1, CDC7, TIMELESS, CDK2, KIF15, KNTC1, BUB1, CDKN3	1.60E-06
6	43	34	4	Cell Cycle Checkpoint Go 0000075	6.05E-06	CHEK1, CCNE2, KNTC1, BUB1	4.99E-04
6	93	34	5	Dna Replication	5.75E-06	POLE2, CDK2, PRIM1, MCM2, MSH6	4.99E-04
6	39	34	4	Regulation Of Cyclin Dependent Protein Kinase Activity	4.06E-06	CHEK1, CCNE2, CDC25A, CDKN3	4.19E-04
6	70	34	3	Mitosis	9.89E-04	KIF15, KNTC1, BUB1	3.89E-02
6	276	34	13	Cell Cycle Go 0007049	2.13E-13	CHEK1, CDC7, CCNE2, TIMELESS, CDK2, KIF15, KNTC1, CDC25A, MCM2, KIF23, BUB1, RACGAP1, CDKN3	1.75E-10
6	51	34	3	Dna Dependent Dna Replication	3.90E-04	CDK2, PRIM1, MSH6	2.48E-02
6	57	34	3	Interphase Of Mitotic Cell Cycle	5.42E-04	CDC7, CDK2, CDKN3	2.69E-02
6	150	34	4	Response To Dna Damage Stimulus	8.02E-04	CHEK1, POLE2, FEN1, MSH6	3.44E-02
6	157	34	9	Regulation Of Cell Cycle	3.43E-10	CHEK1, CDC7, CCNE2, TIMELESS, CDK2, KNTC1, CDC25A, BUB1, CDKN3	9.44E-08
6	72	34	3	M Phase Of Mitotic Cell Cycle	1.07E-03	KIF15, KNTC1, BUB1	4.03E-02
6	266	34	5	Regulation Of Cell Proliferation	8.34E-04	CHEK1, CDC7, TIMELESS, CDK2, CDKN3	3.44E-02
13	234	78	16	Dna Metabolic Process	1.47E-12	CDC6, EXO1, RAD1, POLE2, MCM7, SMARCB1, POLL, ORC2L, FANCG, DBF4, CHEK1, CEBPG, ORC5L, TFAM, ORC1L, GMNN	1.21E-09
13	118	78	6	Dna Repair	1.13E-04	EXO1, RAD1, POLE2, POLL, FANCG, CEBPG	5.47E-03
13	177	78	8	Response To Endogenous Stimulus	1.82E-05	EXO1, RAD1, POLE2, MCM7, POLL, FANCG, CHEK1, CEBPG	1.25E-03

13	99	78	7	M Phase	3.36E-06	BUB1, NCAPH, RAD1, PLK1, BIRC5, CHEK1, SMC4	2.77E-04
13	20	78	3	Dna Integrity Checkpoint	2.75E-04	CDC6, RAD1, CHEK1	1.26E-02
13	63	78	4	Interphase	7.26E-04	CDC6, BIRC5, DBF4, TIMELESS	3.13E-02
13	170	78	10	Cell Cycle Process	1.33E-07	BUB1, NCAPH, CDC6, RAD1, PLK1, BIRC5, DBF4, CHEK1, TIMELESS, SMC4	1.56E-05
13	134	78	7	Mitotic Cell Cycle	2.47E-05	BUB1, NCAPH, CDC6, PLK1, BIRC5, DBF4, SMC4	1.57E-03
13	153	78	10	Cell Cycle Phase	4.90E-08	BUB1, NCAPH, CDC6, RAD1, PLK1, BIRC5, DBF4, CHEK1, TIMELESS, SMC4	6.74E-06
13	43	78	7	Cell Cycle Checkpoint Go 0000075	9.72E-09	BUB1, CCNE2, CDC6, RAD1, FANCG, BIRC5, CHEK1	2.67E-06
13	15	78	4	Dna Replication Initiation	2.11E-06	CDC6, ORC2L, ORC5L, ORC1L	1.93E-04
13	93	78	10	Dna Replication	3.76E-10	CDC6, EXO1, POLE2, MCM7, ORC2L, DBF4, ORC5L, TFAM, ORC1L, GMNN	1.55E-07
13	70	78	5	Mitosis	8.73E-05	BUB1, NCAPH, PLK1, BIRC5, SMC4	4.80E-03
13	276	78	13	Cell Cycle Go 0007049	2.12E-08	BUB1, CCNE2, NCAPH, CDC6, RAD1, FANCG, PLK1, BIRC5, DBF4, CHEK1, TIMELESS, SMC4, GMNN	4.37E-06
13	51	78	7	Dna Dependent Dna Replication	3.35E-08	CDC6, EXO1, ORC2L, ORC5L, TFAM, ORC1L, GMNN	5.53E-06
13	150	78	8	Response To Dna Damage Stimulus	5.39E-06	EXO1, RAD1, POLE2, MCM7, POLL, FANCG, CHEK1, CEBPG	4.05E-04
13	157	78	9	Regulation Of Cell Cycle	7.32E-07	BUB1, CCNE2, CDC6, RAD1, FANCG, BIRC5, CHEK1, TIMELESS, GMNN	7.55E-05
13	72	78	5	M Phase Of Mitotic Cell Cycle	9.99E-05	BUB1, NCAPH, PLK1, BIRC5, SMC4	5.15E-03
18	234	31	9	Dna Metabolic Process	4.71E-09	CHEK1, MCM3, DMC1, NASP, MCM2, FEN1, EXO1, MCM7, FANCG	1.94E-06
18	177	31	5	Response To Endogenous Stimulus	8.08E-05	CHEK1, FEN1, EXO1, MCM7, FANCG	6.67E-03
18	99	31	4	M Phase	1.14E-04	CHEK1, KNTC1, DMC1, SMC4	8.55E-03
18	170	31	8	Cell Cycle Process	8.00E-09	CHEK1, KNTC1, DMC1, TIMELESS, SMC4, KIF23, RACGAP1, CDC7	2.20E-06
18	134	31	4	Mitotic Cell Cycle	3.65E-04	KNTC1, SMC4, KIF23, CDC7	2.15E-02
18	153	31	6	Cell Cycle Phase	2.16E-06	CHEK1, KNTC1, DMC1, TIMELESS, SMC4, CDC7	3.45E-04
18	43	31	4	Cell Cycle Checkpoint Go 0000075	4.13E-06	CHEK1, CCNE2, KNTC1, FANCG	4.26E-04
18	77	31	3	Response To Abiotic Stimulus	9.93E-04	TIMELESS, FEN1, TOPBP1	4.55E-02
18	93	31	5	Dna Replication	3.57E-06	MCM3, NASP, MCM2, EXO1, MCM7	4.21E-04
18	44	31	3	Dna Recombination	1.90E-04	CHEK1, DMC1, EXO1	1.21E-02

18	276	31	12	Cell Cycle Go 0007049	1.56E-12	CHEK1, CCNE2, KNTC1, DMC1, NASP, MCM2, TIMELESS, SMC4, KIF23, RACGAP1, FANCG, CDC7	1.29E-09
18	150	31	5	Response To Dna Damage Stimulus	3.67E-05	CHEK1, FEN1, EXO1, MCM7, FANCG	3.36E-03
18	157	31	6	Regulation Of Cell Cycle	2.51E-06	CHEK1, CCNE2, KNTC1, TIMELESS, FANCG, CDC7	3.45E-04
20	118	44	4	Dna Repair	8.79E-04	POLQ, EXO1, RAD51, HMGB2	4.27E-02
20	19	44	4	Mitotic Cell Cycle Checkpoint	5.77E-07	BUB1, CCNA2, MAD2L1, BUB1B	4.76E-05
20	177	44	5	Response To Endogenous Stimulus	4.43E-04	POLQ, EXO1, CCNA2, RAD51, HMGB2	2.43E-02
20	99	44	12	M Phase	1.11E-16	BUB1, PLK1, CENPE, CCNA2, RAD51, MAD2L1, NEK2, BIRC5, NCAPH, BUB1B, KIF15, AURKA	9.16E-14
20	33	44	6	Regulation Of Mitosis	1.72E-09	BUB1, CCNA2, MAD2L1, NEK2, BIRC5, BUB1B	1.77E-07
20	170	44	14	Cell Cycle Process	5.08E-14	BUB1, PLK1, CENPE, CCNA2, RAD51, MAD2L1, NEK2, BIRC5, NCAPH, BUB1B, KIF23, KIF15, RACGAP1, AURKA	8.01E-12
20	134	44	12	Mitotic Cell Cycle	4.67E-14	BUB1, PLK1, CENPE, CCNA2, MAD2L1, NEK2, BIRC5, NCAPH, BUB1B, KIF23, KIF15, AURKA	8.01E-12
20	153	44	12	Cell Cycle Phase	1.90E-13	BUB1, PLK1, CENPE, CCNA2, RAD51, MAD2L1, NEK2, BIRC5, NCAPH, BUB1B, KIF15, AURKA	2.23E-11
20	43	44	5	Cell Cycle Checkpoint Go 0000075	4.47E-07	BUB1, CCNA2, MAD2L1, BIRC5, BUB1B	4.10E-05
20	28	44	3	Chromosome Segregation	1.40E-04	CENPE, NCAPH, TOP2A	9.62E-03
20	70	44	11	Mitosis	2.09E-14	BUB1, PLK1, CENPE, CCNA2, MAD2L1, NEK2, BIRC5, NCAPH, BUB1B, KIF15, AURKA	8.01E-12
20	276	44	15	Cell Cycle Go 0007049	5.83E-14	BUB1, PLK1, CENPE, CCNA2, RAD51, MAD2L1, NEK2, BIRC5, NCAPH, BUB1B, KIF23, KIF15, CDC20, RACGAP1, AURKA	8.01E-12
20	51	44	3	Dna Dependent Dna Replication	8.39E-04	EXO1, RAD51, HMGB2	4.27E-02
20	150	44	5	Response To Dna Damage Stimulus	2.06E-04	POLQ, EXO1, CCNA2, RAD51, HMGB2	1.31E-02
20	157	44	6	Regulation Of Cell Cycle	2.09E-05	BUB1, CCNA2, MAD2L1, NEK2, BIRC5, BUB1B	1.57E-03
20	72	44	11	M Phase Of Mitotic Cell Cycle	3.64E-14	BUB1, PLK1, CENPE, CCNA2, MAD2L1, NEK2, BIRC5, NCAPH, BUB1B, KIF15, AURKA	8.01E-12
21	233	30	7	Defense Response	1.29E-06	CXCL11, CXCL9, CCR5, PT-PRCAP, ITK, MNDA, CCR1	2.94E-04
21	128	30	5	Behavior	1.44E-05	CXCL13, CXCL11, CXCL9, CCR5, DOCK2	1.72E-03

21	80	30	5	Locomotory Behavior	1.43E-06	CXCL13, CXCL11, CXCL9, CCR5, DOCK2	2.94E-04
21	113	30	4	Inflammatory Response	1.67E-04	CXCL11, CXCL9, CCR5, CCR1	1.05E-02
21	88	30	4	Cellular Cation Homeostasis	6.31E-05	CXCL13, CCR5, LCK, CCR1	5.21E-03
21	261	30	6	Response To Chemical Stimulus	3.75E-05	CXCL13, CXCL11, CXCL9, CCR5, LCK, DOCK2	3.87E-03
21	207	30	8	Immune Response	2.82E-08	CXCL13, CD96, AIM2, CCR5, IL2RG, GZMA, LCP2, CCR1	1.16E-05
21	172	30	4	Homeostatic Process	8.24E-04	CXCL13, CCR5, LCK, CCR1	3.09E-02
21	115	30	4	Cellular Homeostasis	1.79E-04	CXCL13, CCR5, LCK, CCR1	1.05E-02
21	290	30	10	Immune System Process	1.10E-09	CXCL13, CD96, AIM2, CCR5, IL2RG, GZMA, LCP2, LCK, CCR1, DOCK2	9.10E-07
21	269	30	6	Response To External Stimulus	4.44E-05	CXCL13, CXCL11, CXCL9, CCR5, CCR1, DOCK2	4.07E-03
21	130	30	4	Chemical Homeostasis	2.86E-04	CXCL13, CCR5, LCK, CCR1	1.42E-02
21	107	30	4	Ion Homeostasis	1.35E-04	CXCL13, CCR5, LCK, CCR1	9.29E-03
21	55	30	3	Apoptotic Program	3.35E-04	GZMA, GZMB, LCK	1.46E-02
21	91	30	4	Cation Homeostasis	7.20E-05	CXCL13, CCR5, LCK, CCR1	5.40E-03
21	168	30	4	Response To Wounding	7.55E-04	CXCL11, CXCL9, CCR5, CCR1	3.09E-02
21	52	30	4	Cellular Defense Response	7.80E-06	CXCL9, CCR5, ITK, MND4	1.29E-03
22	163	27	5	Proteolysis	2.71E-05	MMP11, MMP1, CTSK, PLAU, MMP2	2.24E-02
25	234	29	8	Dna Metabolic Process	5.44E-08	CHEK1, POLE2, MCM2, TIPIN, FEN1, MCM7, KPNA2, EXO1	8.98E-06
25	177	29	5	Response To Endogenous Stimulus	5.78E-05	CHEK1, POLE2, FEN1, MCM7, EXO1	3.41E-03
25	99	29	5	M Phase	3.44E-06	CHEK1, KIF15, SMC4, KPNA2, NDC80	3.24E-04
25	74	29	4	Microtubule Based Process	2.78E-05	KIF4A, KPNA2, PRC1, KIF23	1.91E-03
25	63	29	4	Interphase	1.46E-05	CDC7, TIPIN, KPNA2, TIMELESS	1.21E-03
25	170	29	12	Cell Cycle Process	2.00E-15	CHEK1, FBXO5, CDC7, TIPIN, KIF15, SMC4, KPNA2, TIMELESS, PRC1, RACGAP1, KIF23, NDC80	8.24E-13
25	134	29	8	Mitotic Cell Cycle	6.72E-10	FBXO5, CDC7, KIF15, SMC4, KPNA2, PRC1, KIF23, NDC80	1.85E-07
25	153	29	8	Cell Cycle Phase	1.93E-09	CHEK1, CDC7, TIPIN, KIF15, SMC4, KPNA2, TIMELESS, NDC80	3.99E-07
25	13	29	3	S Phase	3.53E-06	CDC7, TIPIN, TIMELESS	3.24E-04
25	43	29	3	Cell Cycle Checkpoint Go 0000075	1.45E-04	CHEK1, CCNE2, TIPIN	6.76E-03
25	93	29	5	Dna Replication	2.53E-06	POLE2, MCM2, TIPIN, MCM7, EXO1	2.98E-04
25	44	29	3	Dna Recombination	1.56E-04	CHEK1, KPNA2, EXO1	6.76E-03
25	70	29	3	Mitosis	6.17E-04	KIF15, SMC4, NDC80	2.12E-02
25	276	29	14	Cell Cycle Go 0007049	4.44E-16	CHEK1, FBXO5, CDC7, CCNE2, MCM2, TIPIN, KIF15, SMC4, KPNA2, TIMELESS, PRC1, RACGAP1, KIF23, NDC80	3.66E-13
25	181	29	5	Cytoskeleton Organization And Biogenesis	6.43E-05	KIF4A, KPNA2, PRC1, RACGAP1, KIF23	3.54E-03

25	150	29	5	Response To Dna Damage Stimulus	2.62E-05	CHEK1, POLE2, FEN1, MCM7, EXO1	1.91E-03
25	157	29	6	Regulation Of Cell Cycle	1.65E-06	CHEK1, FBXO5, CDC7, CCNE2, TIPIN, TIMELESS	2.27E-04
25	72	29	3	M Phase Of Mitotic Cell Cycle	6.70E-04	KIF15, SMC4, NDC80	2.13E-02
26	234	44	8	Dna Metabolic Process	1.75E-06	FEN1, KPNA2, CHEK1, RPA3, XRCC4, GMNN, RAN, RFC4	2.06E-04
26	99	44	7	M Phase	6.12E-08	PLK1, BIRC5, CCNA2, MAD2L1, KPNA2, CHEK1, RAN	1.01E-05
26	33	44	3	Regulation Of Mitosis	2.30E-04	BIRC5, CCNA2, MAD2L1	1.58E-02
26	63	44	4	Interphase	7.89E-05	BIRC5, TIMELESS, KPNA2, CDC7	5.92E-03
26	170	44	10	Cell Cycle Process	3.96E-10	FBXO5, PLK1, BIRC5, CCNA2, MAD2L1, TIMELESS, KPNA2, CHEK1, RAN, CDC7	3.26E-07
26	134	44	8	Mitotic Cell Cycle	2.41E-08	FBXO5, PLK1, BIRC5, CCNA2, MAD2L1, KPNA2, RAN, CDC7	4.97E-06
26	153	44	9	Cell Cycle Phase	3.31E-09	PLK1, BIRC5, CCNA2, MAD2L1, TIMELESS, KPNA2, CHEK1, RAN, CDC7	9.09E-07
26	43	44	4	Cell Cycle Checkpoint Go 0000075	1.72E-05	BIRC5, CCNA2, MAD2L1, CHEK1	1.42E-03
26	70	44	5	Mitosis	5.23E-06	PLK1, BIRC5, CCNA2, MAD2L1, RAN	5.39E-04
26	276	44	11	Cell Cycle Go 0007049	2.95E-09	FBXO5, PLK1, BIRC5, CCNA2, MAD2L1, TIMELESS, KPNA2, CHEK1, GMNN, RAN, CDC7	9.09E-07
26	157	44	8	Regulation Of Cell Cycle	8.31E-08	FBXO5, BIRC5, CCNA2, MAD2L1, TIMELESS, CHEK1, GMNN, CDC7	1.14E-05
26	72	44	5	M Phase Of Mitotic Cell Cycle	6.01E-06	PLK1, BIRC5, CCNA2, MAD2L1, RAN	5.51E-04
27	90	55	8	Skeletal Development	6.48E-09	COL11A1, INHBA, TWIST1, COMP, FBN1, SPARC, AEBP1, COL1A2	1.78E-06
31	26	65	3	Jak Stat Cascade	3.57E-04	STAT1, STAT3, LYN	4.21E-02
31	128	65	6	Behavior	6.34E-05	CXCL10, CXCL11, PTAFR, ITGB2, CCL5, CXCL9	1.74E-02
31	80	65	6	Locomotory Behavior	4.30E-06	CXCL10, CXCL11, PTAFR, ITGB2, CCL5, CXCL9	3.12E-03
31	113	65	5	Inflammatory Response	3.51E-04	CXCL10, CXCL11, PTAFR, CCL5, CXCL9	4.21E-02
31	22	65	3	Peptidyl Tyrosine Phosphorylation	2.15E-04	STAT1, ITGB2, LYN	3.54E-02
31	47	65	4	Peptidyl Amino Acid Modification	1.16E-04	STAT1, TPST2, ITGB2, LYN	2.39E-02
31	24	65	4	Peptidyl Tyrosine Modification	7.57E-06	STAT1, TPST2, ITGB2, LYN	3.12E-03
33	19	57	4	Mitotic Cell Cycle Checkpoint	1.66E-06	BUB1, TTK, BUB1B, CCNA2	6.25E-05
33	13	57	4	Cytokinesis	3.12E-07	RACGAP1, PRC1, NUSAP1, BIRC5	1.36E-05

33	99	57	18	M Phase	3.18E-14	BUB1, TTK, ESPL1, PLK1, NDC80, AURKA, KIF11, SMC4, TPX2, BUB1B, KIF15, UBE2C, NUSAP1, CCNA2, RAD54L, NCAPH, BIRC5, KPNA2	5.24E-12
33	74	57	7	Microtubule Based Process	5.12E-08	TTK, KIF11, KIF23, PRC1, NUSAP1, KIF4A, KPNA2	2.64E-06
33	33	57	7	Regulation Of Mitosis	1.41E-10	BUB1, TTK, BUB1B, UBE2C, NUSAP1, CCNA2, BIRC5	1.30E-08
33	31	57	5	Microtubule Cytoskeleton Organization And Biogenesis	3.07E-07	TTK, KIF11, KIF23, PRC1, NUSAP1	1.36E-05
33	170	57	23	Cell Cycle Process	5.44E-14	BUB1, FBXO5, TTK, ESPL1, PLK1, NDC80, AURKA, RACGAP1, KIF11, KIF23, SMC4, PRC1, TPX2, BUB1B, KIF15, UBE2C, CENPF, NUSAP1, CCNA2, RAD54L, NCAPH, BIRC5, KPNA2	6.41E-12
33	15	57	5	Mitotic Sister Chromatid Segregation	5.75E-09	ESPL1, NDC80, SMC4, NUSAP1, NCAPH	4.75E-07
33	134	57	21	Mitotic Cell Cycle	5.23E-14	BUB1, FBXO5, TTK, ESPL1, PLK1, NDC80, AURKA, KIF11, KIF23, SMC4, PRC1, TPX2, BUB1B, KIF15, UBE2C, CENPF, NUSAP1, CCNA2, NCAPH, BIRC5, KPNA2	6.41E-12
33	153	57	19	Cell Cycle Phase	1.15E-14	BUB1, TTK, ESPL1, PLK1, NDC80, AURKA, KIF11, SMC4, TPX2, BUB1B, KIF15, UBE2C, CENPF, NUSAP1, CCNA2, RAD54L, NCAPH, BIRC5, KPNA2	3.18E-12
33	43	57	5	Cell Cycle Checkpoint Go 0000075	1.67E-06	BUB1, TTK, BUB1B, CCNA2, BIRC5	6.25E-05
33	28	57	7	Chromosome Segregation	3.99E-11	ESPL1, NDC80, SMC4, CENPF, NUSAP1, TOP2A, NCAPH	4.12E-09
33	15	57	3	Establishment Of Organelle Localization	4.39E-05	CENPF, NUSAP1, BIRC5	1.39E-03
33	15	57	4	Cell Division	5.92E-07	RACGAP1, PRC1, NUSAP1, BIRC5	2.44E-05
33	44	57	3	Dna Recombination	1.16E-03	EXO1, RAD54L, KPNA2	3.30E-02
33	8	57	4	Mitotic Spindle Organization And Biogenesis	3.11E-08	TTK, KIF11, KIF23, PRC1	1.98E-06
33	70	57	16	Mitosis	0.00E+00	BUB1, TTK, ESPL1, PLK1, NDC80, AURKA, KIF11, SMC4, TPX2, BUB1B, KIF15, UBE2C, NUSAP1, CCNA2, NCAPH, BIRC5	0.00E+00
33	276	57	25	Cell Cycle Go 0007049	2.81E-14	BUB1, FBXO5, TTK, ESPL1, PLK1, NDC80, AURKA, RACGAP1, KIF11, KIF23, SMC4, PRC1, TPX2, BUB1B, KIF15, UBE2C, CENPF, NUSAP1, CCNA2, CDC20, RAD54L, CKS2, NCAPH, BIRC5, KPNA2	5.24E-12

33	16	57	5	Sister Chromatid Segregation	8.34E-09	ESPL1, NDC80, SMC4, NUSAP1, NCAPH	6.25E-07
33	19	57	3	Organelle Localization	9.23E-05	CENPF, NUSAP1, BIRC5	2.82E-03
33	181	57	8	Cytoskeleton Organization And Biogenesis	1.97E-06	TTK, RACGAP1, KIF11, KIF23, PRC1, NUSAP1, KIF4A, KPNA2	7.05E-05
33	105	57	6	Chromosome Organization And Biogenesis	9.63E-06	ESPL1, NDC80, SMC4, NUSAP1, TOP2A, NCAPH	3.18E-04
33	27	57	4	Dna Packaging	7.30E-06	SMC4, NUSAP1, TOP2A, NCAPH	2.51E-04
33	9	57	4	Spindle Organization And Biogenesis	5.58E-08	TTK, KIF11, KIF23, PRC1	2.71E-06
33	157	57	9	Regulation Of Cell Cycle	4.56E-08	BUB1, FBXO5, TTK, BUB1B, UBE2C, NUSAP1, CCNA2, CKS2, BIRC5	2.51E-06
33	72	57	16	M Phase Of Mitotic Cell Cycle	0.00E+00	BUB1, TTK, ESPL1, PLK1, NDC80, AURKA, KIF11, SMC4, TPX2, BUB1B, KIF15, UBE2C, NUSAP1, CCNA2, NCAPH, BIRC5	0.00E+00
33	8	57	4	Chromosome Condensation	3.11E-08	SMC4, NUSAP1, TOP2A, NCAPH	1.98E-06