

Table SIII. GO term and KEGG pathway enrichment analysis of common differentially expressed genes.

A, KEGG pathway			
Term	Count	P-value	Genes
hsa04110:Cell cycle	5	1.15×10^{-5}	CDC45, CCNB2, BUB1, BUB1B, PTTG1
hsa04114:Oocyte meiosis	3	0.009071	CCNB2, BUB1, PTTG1
B, Biological process			
Term	Count	P-value	Genes
GO:0007067~mitosis	18	1.51×10^{-24}	KIF15, NUF2, TPX2, CENPF, NUSAP1, NDC80, CENPE, BIRC5, PBK, PTTG1, UBE2C, KIF2C, CDCA8, CCNB2, OIP5, BUB1, BUB1B, ASPM
GO:0000280~nuclear division	18	1.51×10^{-24}	KIF15, NUF2, TPX2, CENPF, NUSAP1, NDC80, CENPE, BIRC5, PBK, PTTG1, UBE2C, KIF2C, CDCA8, CCNB2, OIP5, BUB1, BUB1B, ASPM
GO:0000087~M phase of mitotic cell cycle	18	2.07×10^{-24}	KIF15, NUF2, TPX2, CENPF, NUSAP1, NDC80, CENPE, BIRC5, PBK, PTTG1, UBE2C, KIF2C, CDCA8, CCNB2, OIP5, BUB1, BUB1B, ASPM
GO:0000278~mitotic cell cycle	20	2.28×10^{-24}	PRC1, KIF15, NUF2, TPX2, CENPF, NUSAP1, NDC80, CENPE, BIRC5, PBK, PTTG1, UBE2C, KIF2C, CDCA8, CCNB2, OIP5, CENPA, BUB1, BUB1B, ASPM
GO:0048285~organelle fission	18	3.05×10^{-24}	KIF15, NUF2, TPX2, CENPF, NUSAP1, NDC80, CENPE, BIRC5, PBK, PTTG1, UBE2C, KIF2C, CDCA8, CCNB2, OIP5, BUB1, BUB1B, ASPM
GO:0000279~M phase	19	2.12×10^{-23}	PRC1, KIF15, NUF2, TPX2, CENPF, NUSAP1, NDC80, CENPE, BIRC5, PBK, PTTG1, UBE2C, KIF2C, CDCA8, CCNB2, OIP5, BUB1, BUB1B, ASPM

GO:0022403~cell cycle phase	19	1.38×10^{-21}	PRC1, KIF15, NUF2, TPX2, CENPF, NUSAP1, NDC80, CENPE, BIRC5, PBK, PTTG1, UBE2C, KIF2C, CDCA8, CCNB2, OIP5, BUB1, BUB1B, ASPM
GO:0007049~cell cycle	22	1.38×10^{-21}	PRC1, KIF15, TPX2, NUF2, CENPF, NUSAP1, NDC80, CENPE, BIRC5, PBK, PTTG1, UBE2C, KIF2C, CDC45, CDCA8, CCNB2, OIP5, CENPA, HJURP, BUB1, BUB1B, ASPM
GO:0022402~cell cycle process	20	7.43×10^{-21}	PRC1, KIF15, NUF2, TPX2, CENPF, NUSAP1, NDC80, CENPE, BIRC5, PBK, PTTG1, UBE2C, KIF2C, CDCA8, CCNB2, OIP5, CENPA, BUB1, BUB1B, ASPM
GO:0051301~cell division	15	6.18×10^{-17}	PRC1, NUF2, NUSAP1, CENPF, NDC80, CENPE, BIRC5, PTTG1, UBE2C, CDCA8, CCNB2, OIP5, BUB1, BUB1B, ASPM
C, Cellular component			
Term	Count	P-value	Genes
GO:0000775~chromosome, centromeric region	12	5.54×10^{-17}	KIF2C, CDCA8, OIP5, HJURP, CENPA, NUF2, BUB1, BUB1B, CENPF, BIRC5, CENPE, NDC80
GO:0005819~spindle	12	3.79×10^{-16}	KIF14, CDCA8, PRC1, KIF15, BUB1, TPX2, BUB1B, CENPF, NUSAP1, BIRC5, CENPE, ASPM
GO:0015630~microtubule cytoskeleton	16	9.04×10^{-16}	KIF14, PRC1, KIF15, TPX2, CENPF, NUSAP1, CENPE, BIRC5, KIF2C, CDCA8, CDC45, CCNB2, BUB1, BUB1B, TOP2A, ASPM
GO:0000777~condensed chromosome kinetochore	9	5.06×10^{-14}	KIF2C, HJURP, CENPA, NUF2, BUB1, BUB1B, CENPF, CENPE, NDC80
GO:0000779~condensed chromosome, centromeric region	9	1.50×10^{-13}	KIF2C, HJURP, CENPA, NUF2, BUB1, BUB1B, CENPF, CENPE, NDC80

GO:0000776~kinetochore	9	5.44x10 ⁻¹³	KIF2C, HJURP, CENPA, NUF2, BUB1, BUB1B, CENPF, CENPE, NDC80
GO:0005694~chromosome	13	3.87x10 ⁻¹²	NUF2, CENPF, NDC80, CENPE, BIRC5, KIF2C, CDCA8, HJURP, CENPA, OIP5, BUB1, BUB1B, TOP2A
GO:0043232~intracellular non-membrane-bounded organelle	21	1.26x10 ⁻¹¹	KIF14, PRC1, KIF15, TPX2, NUF2, CENPF, NUSAP1, NDC80, CENPE, BIRC5, KIF2C, CDC45, CDCA8, CCNB2, OIP5, CENPA, HJURP, BUB1, BUB1B, TOP2A, ASPM
GO:0043228~non-membrane-bounded organelle	21	1.26x10 ⁻¹¹	KIF14, PRC1, KIF15, TPX2, NUF2, CENPF, NUSAP1, NDC80, CENPE, BIRC5, KIF2C, CDC45, CDCA8, CCNB2, OIP5, CENPA, HJURP, BUB1, BUB1B, TOP2A, ASPM
GO:0044427~chromosomal part	12	1.62x10 ⁻¹¹	KIF2C, CDCA8, OIP5, HJURP, CENPA, NUF2, BUB1, BUB1B, CENPF, BIRC5, CENPE, NDC80
D, Molecular function			
Term	Count	P-value	Genes
GO:0005524~ATP binding	11	6.51x10 ⁻⁶	KIF14, KIF2C, KIF15, BUB1, TPX2, BUB1B, CENPE, PBK, UBE2C, TOP2A, MELK
GO:0032559~adenyl ribonucleotide binding	11	7.36x10 ⁻⁶	KIF14, KIF2C, KIF15, BUB1, TPX2, BUB1B, CENPE, PBK, UBE2C, TOP2A, MELK
GO:0030554~adenyl nucleotide binding	11	1.18x10 ⁻⁵	KIF14, KIF2C, KIF15, BUB1, TPX2, BUB1B, CENPE, PBK, UBE2C, TOP2A, MELK
GO:0001883~purine nucleoside binding	11	1.35x10 ⁻⁵	KIF14, KIF2C, KIF15, BUB1, TPX2, BUB1B, CENPE, PBK, UBE2C, TOP2A, MELK
GO:0001882~nucleoside binding	11	1.44x10 ⁻⁵	KIF14, KIF2C, KIF15, BUB1, TPX2, BUB1B, CENPE, PBK, UBE2C,

			TOP2A, MELK
GO:0000166~nucleotide binding	12	3.89×10^{-5}	KIF14, KIF2C, TYMS, KIF15, BUB1, TPX2, BUB1B, CENPE, PBK, UBE2C, TOP2A, MELK
GO:0032555~purine ribonucleotide binding	11	4.61×10^{-5}	KIF14, KIF2C, KIF15, BUB1, TPX2, BUB1B, CENPE, PBK, UBE2C, TOP2A, MELK
GO:0032553~ribonucleotide binding	11	4.61×10^{-5}	KIF14, KIF2C, KIF15, BUB1, TPX2, BUB1B, CENPE, PBK, UBE2C, TOP2A, MELK
GO:0017076~purine nucleotide binding	11	6.77×10^{-5}	KIF14, KIF2C, KIF15, BUB1, TPX2, BUB1B, CENPE, PBK, UBE2C, TOP2A, MELK
GO:0003777~microtubule motor activity	4	1.54×10^{-4}	KIF14, KIF2C, KIF15, CENPE

GO, Gene Ontology; KEGG, Kyoto Encyclopedia of Genes and Genomes.