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MCAK/KIF2C Rabbit pAb

Catalog # AP99389

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	Q99661
Other Accession	Q99661
Predicted	Rat, Pig, Human, Mouse, Chicken, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	81313
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human MCAK
Epitope Specificity	451-550/725
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the kinesin-like protein family. MCAK/KIF2 subfamily. Contains 1 kinesin-motor domain.
SUBUNIT	Interacts with CENPH. Interacts with MTUS2/TIP150; the interaction is direct. Interacts with MAPRE1; the interaction is direct, regulated by phosphorylation and is probably required for targeting to growing microtubule plus ends. Interacts with KIF18B at microtubule tips; this interaction increases the affinity of both partners for microtubule plus ends and is required for robust microtubule depolymerization. Phosphorylation by AURKA or AURKB strongly reduces KIF18B-binding.
Post-translational modifications	Phosphorylated upon DNA damage, probably by ATM or ATR. Phosphorylation by STK12, regulates association with centromeres and kinetochores and the microtubule depolymerization activity.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a kinesin-like protein that functions as a microtubule-dependent molecular motor. The encoded protein can depolymerize microtubules at the plus end, thereby promoting mitotic chromosome segregation. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2014]

Additional Information

Gene ID	11004
Other Names	CT139; KNSL6; MCAK; 4930402F02Rik; ESTM5; KIF2C_HUMAN; KIF2C; Kinesin-like protein 6; Mitotic centromere-associated kinesin (MCAK); KIF2C_MOUSE; kinesin family member 2C; kinesin-like 6 (mitotic centromere-associated kinesin)
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:500

	0-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	KIF2C
Synonyms	KNSL6
Function	In complex with KIF18B, constitutes the major microtubule plus-end depolymerizing activity in mitotic cells (PubMed:21820309). Regulates the turnover of microtubules at the kinetochore and functions in chromosome segregation during mitosis (PubMed:19060894). Plays a role in chromosome congression and is required for the lateral to end- on conversion of the chromosome-microtubule attachment (PubMed:23891108).
Cellular Location	Cytoplasm, cytoskeleton. Nucleus {ECO:0000250|UniProtKB:P70096} Chromosome, centromere. Chromosome, centromere, kinetochore. Note=Associates with the microtubule network at the growing distal tip (the plus-end) of microtubules, probably through interaction with MTUS2/TIP150 and MAPRE1 (By similarity). Association with microtubule plus ends is also mediated by interaction with KIF18B. Centromeric localization requires the presence of BUB1 and SGO2. {ECO:0000250|UniProtKB:P70096, ECO:0000269|PubMed:17485487, ECO:0000269|PubMed:21820309}
Tissue Location	Expressed at high levels in thymus and testis, at low levels in small intestine, the mucosal lining of colon, and placenta, and at very low levels in spleen and ovary; expression is not detected in prostate, peripheral blood Leukocytes, heart, brain, lung, liver, skeletal muscle, kidney or pancreas. Isoform 2 is testis- specific.

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