

KIF20B Rabbit pAb

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Catalog # AP56532

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q96Q89
Reactivity	Mouse
Predicted	Rat, Pig, Dog, Human, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	210629
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human KIF20B
Epitope Specificity	1651-1750/1820
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm. Nucleus. Cytoplasm > cytoskeleton > spindle. Localizes mainly in the nucleus during interphase although it is also detected in the cytoplasm without clear association with microtubules. A 2-3 fold expression increase is seen as cells progress from G1 to G2/M phase. During prophase and metaphase it is found throughout the cytoplasm and at anaphase accumulates at the midplan of the cell and forms a distinct band extending across the spindle midzone. At anaphase it is concentrated in the mid-body.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The Kinesins constitute a large family of microtubule-dependent motor proteins which are responsible for the distribution of numerous organelles, vesicles and macromolecular complexes throughout the cell. Individual Kinesin members play crucial roles in cell division, intracellular transport and membrane trafficking events, including endocytosis and transcytosis. MPP1 (M-phase phosphoprotein 1), also known as KIF20B (kinesin family member 20B), MPHOSPH1 or KRMP1, is a 1,820 amino acid protein that localizes to both the nucleus and the cytoplasm and contains one kinesin-motor domain. Expressed in kidney, brain, testis and ovary, MPP1 functions as a plus-end directed motor enzyme that interacts with Pin1 and is required for the completion of cytokinesis. MPP1, which exists as multiple alternatively spliced isoforms termed 1-5, is subject to post-translational phosphorylation, probably by ATM or ATR.

Additional Information

Gene ID	9585
Other Names	Kinesin-like protein KIF20B, Cancer/testis antigen 90, CT90, Kinesin family

member 20B {ECO:0000312|HGNC:HGNC:7212}, Kinesin-related motor interacting with PIN1, M-phase phosphoprotein 1, MPP1, KIF20B ([HGNC:7212](#))

Dilution

IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500

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

KIF20B ([HGNC:7212](#))

Function

Plus-end-directed motor enzyme that is required for completion of cytokinesis (PubMed:[11470801](#), PubMed:[12740395](#)). Required for proper midbody organization and abscission in polarized cortical stem cells. Plays a role in the regulation of neuronal polarization by mediating the transport of specific cargos. Participates in the mobilization of SHTN1 and in the accumulation of PIP3 in the growth cone of primary hippocampal neurons in a tubulin and actin-dependent manner. In the developing telencephalon, cooperates with SHTN1 to promote both the transition from the multipolar to the bipolar stage and the radial migration of cortical neurons from the ventricular zone toward the superficial layer of the neocortex. Involved in cerebral cortex growth (By similarity). Acts as an oncogene for promoting bladder cancer cells proliferation, apoptosis inhibition and carcinogenic progression (PubMed:[17409436](#)).

Cellular Location

Nucleus. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Nucleus, nucleolus. Nucleus, nucleoplasm. Cytoplasm, cytoskeleton, spindle. Cytoplasm, cytoskeleton, spindle pole. Midbody. Cell projection, axon {ECO:0000250|UniProtKB:Q80WE4}. Cell projection, growth cone {ECO:0000250|UniProtKB:Q80WE4}. Note=Localizes mainly in the nucleus during interphase although it is also detected in the cytoplasm without clear association with microtubules (PubMed:12740395). Localized to the central spindle during cytokinetic furrowing and with the midbody during abscission (PubMed:12740395, PubMed:17409436). A 2-3 fold expression increase is seen as cells progress from G1 to G2/M phase (PubMed:12740395). During prophase and metaphase it is found throughout the cytoplasm and at anaphase accumulates at the midplan of the cell and forms a distinct band extending across the spindle midzone (PubMed:12740395). At anaphase it is concentrated in the midbody (PubMed:12740395). Colocalized partially along microtubules in primary neurons. Colocalized with SHTN1 along microtubules to the tip of the growing cone in primary hippocampal neurons. Localized in midbodies between dividing radial progenitors in the ventricular zone (By similarity). Colocalized with PRC1 in the nucleus of bladder carcinoma cells at the interphase. Colocalized with PRC1 in bladder carcinoma cells at prophase, metaphase, early anaphase, at the midzone in late anaphase and at the contractile ring in telophase (PubMed:17409436). {ECO:0000250|UniProtKB:Q80WE4, ECO:0000269|PubMed:12740395, ECO:0000269|PubMed:17409436}

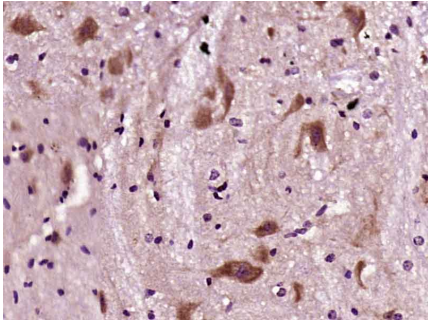
Tissue Location

Brain, ovary, kidney and testis (at protein level) (PubMed:12740395). Overexpressed in bladder cancer cells (at protein level) (PubMed:17409436). Expressed in testis. Overexpressed in bladder cancer cells (PubMed:17409436).

Background

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Images



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (KIF20B) Polyclonal Antibody, Unconjugated (AP56532) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.