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Kif5B-1 Antibody (Central) Blocking Peptide

Synthetic peptide
Catalog # BP8170c

Specification

Kif5B-1 Antibody (Central) Blocking Peptide - Product Information

Primary Accession	P33176
Other Accession	NP_004512

Kif5B-1 Antibody (Central) Blocking Peptide - Additional Information

Gene ID 3799

Other Names
Kinesin-1 heavy chain, Conventional kinesin heavy chain, Ubiquitous kinesin heavy chain, UKHC, KIF5B, KNS, KNS1

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP8170c was selected from the Central region of human Kif5B-1 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Kif5B-1 Antibody (Central) Blocking Peptide - Protein Information

Name KIF5B (HGNC:6324)

Kif5B-1 Antibody (Central) Blocking Peptide - Background

Kinesin is a microtubule-associated force-producing protein that may play a role in organelle transport. It is composed of an oligomer consisting of two heavy chains and two light chains. Kinesin, which is thought to interact with GRIP1, possesses three structural domains: a large globular N-terminal domain which is responsible for the motor activity of kinesin (it hydrolyzes ATP and binds microtubule), a central alpha-helical coiled coil domain that mediates the heavy chain dimerization; and a small globular C-terminal domain which interacts with other proteins (such as the kinesin light chains), vesicles and membranous organelles. Kinesin is found in newborn and adult brain, liver, kidney, spleen, heart, lung and sciatic nerve.

Kif5B-1 Antibody (Central) Blocking Peptide - References

Diefenbach, R.J., et al., Biochem. Biophys. Res. Commun. 319(3):987-992 (2004).Diefenbach, R.J., et al., Biochemistry 41(50):14906-14915 (2002).Hakimi, M.A., et al., J. Biol. Chem. 277(40):36909-36912 (2002).Tanaka, Y., et al., Cell 93(7):1147-1158 (1998).Rahman, A., et al., J. Biol. Chem. 273(25):15395-15403 (1998).

Synonyms KNS, KNS1

Function
Microtubule-dependent motor required for normal distribution of mitochondria and lysosomes. Can induce formation of neurite-like membrane protrusions in non-neuronal cells in a ZFYVE27-dependent manner (By similarity). Regulates centrosome and nuclear positioning during mitotic entry. During the G2 phase of the cell cycle in a BICD2- dependent manner, antagonizes dynein function and drives the separation of nuclei and centrosomes (PubMed:20386726). Required for anterograde axonal transportation of MAPK8IP3/JIP3 which is essential for MAPK8IP3/JIP3 function in axon elongation (By similarity). Through binding with PLEKHM2 and ARL8B, directs lysosome movement toward microtubule plus ends (Probable). Involved in NK cell-mediated cytotoxicity. Drives the polarization of cytolytic granules and microtubule-organizing centers (MTOCs) toward the immune synapse between effector NK lymphocytes and target cells (PubMed:24088571).

Cellular Location
Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:Q2PQA9}. Cytolytic granule membrane. Lysosome membrane; Peripheral membrane protein; Cytoplasmic side Note=Uniformly distributed between soma and neurites in hippocampal neurons. {ECO:0000250|UniProtKB:Q2PQA9}

Kif5B-1 Antibody (Central) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides