

**KINH antibody (Central) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP1575a****Specification****KINH antibody (Central) Blocking Peptide - Product Information**Primary Accession [P33176](#)**KINH 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 [AP1575a](#) was selected from the Central region of human KINH. 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.

**KINH antibody (Central) Blocking Peptide - Protein Information****Name** KIF5B ([HGNC:6324](#))**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](http://www.uniprot.org/citations/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:<a href="http://www.uniprot.org/citations/24088571" target="\_blank">24088571</a>).

#### **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}

#### **KINH antibody (Central) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

#### **KINH antibody (Central) Blocking Peptide - Images**

#### **KINH antibody (Central) Blocking Peptide - Background**

Kinesins are microtubule-based motor proteins involved in the transport of organelles in eukaryotic cells. They typically consist of 2 identical, approximately 110- to 120-kD heavy chains and 2 identical, approximately 60- to 70-kD light chains. The heavy chain contains 3 domains: a globular N-terminal motor domain, which converts the chemical energy of ATP into a motile force along microtubules in 1 fixed direction; a central alpha-helical rod domain, which enables the 2 heavy chains to dimerize; and a globular C-terminal domain, which interacts with light chains and possibly an organelle receptor.

#### **KINH antibody (Central) Blocking Peptide - References**

1. Kamal, A.; et al. *Nature* 414: 643-648, 2001.
2. Kamal, A.; et al. *Neuron* 28: 449-459, 2000.
3. Kull, F. J.; et al. *Nature* 380: 550-555, 1996.

#### **KINH antibody (Central) Blocking Peptide - Citations**

- [Alterations in axonal transport motor proteins in sporadic and experimental Parkinson's disease.](#)