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KIF5 Antibody
Catalog # ASC10566

Specification

KIF5 Antibody - Product Information

Application	**WB, ICC, IF**
Primary Accession	Q12840
Other Accession	Q12840, 143811412
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**Predicted: 105, 114 kDa** **Observed: 118 kDa KDa**
Application Notes	**KIF5 antibody can be used for detection of KIF5 by Western blot at 0.5 - 1 µg/mL. Antibody can also be used for immunocytochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL.**

KIF5 Antibody - Additional Information

Gene ID	**3798**

Target/Specificity
KIF5A; KIF5 has at least three known isoforms; this antibody recognizes all three.

Reconstitution & Storage
KIF5 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
KIF5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

KIF5 Antibody - Protein Information

Name KIF5A

Synonyms NKHC1

Function
Microtubule-dependent motor required for slow axonal transport of neurofilament proteins (NFH, NFM and NFL). Can induce formation of neurite-like membrane protrusions in non-neuronal cells in a ZFYVE27-dependent manner. The ZFYVE27-KIF5A complex contributes to the vesicular transport of VAPA, VAPB, SURF4, RAB11A, RAB11B and RTN3 proteins in neurons. Required for anterograde axonal transportation of MAPK8IP3/JIP3 which is essential for MAPK8IP3/JIP3 function in axon

elongation.

Cellular Location
Cytoplasm, perinuclear region {ECO:0000250|UniProtKB:Q6QLM7}. Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:Q6QLM7}. Perikaryon {ECO:0000250|UniProtKB:Q6QLM7}. Note=Concentrated in the cell body of the neurons, particularly in the perinuclear region {ECO:0000250|UniProtKB:Q6QLM7}

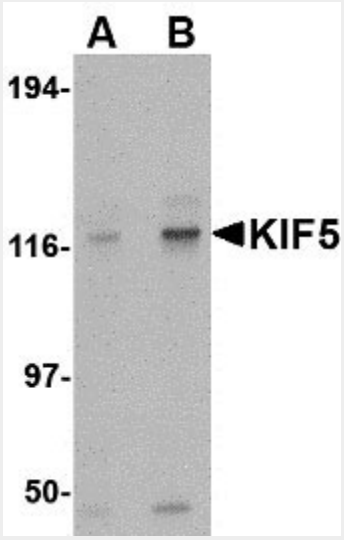
Tissue Location
Distributed throughout the CNS but is highly enriched in subsets of neurons

KIF5 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KIF5 Antibody - Images



Western blot analysis of KIF5 in K562 cell lysate with KIF5 antibody at (A) 0.5 and (B) 1 µg/mL.

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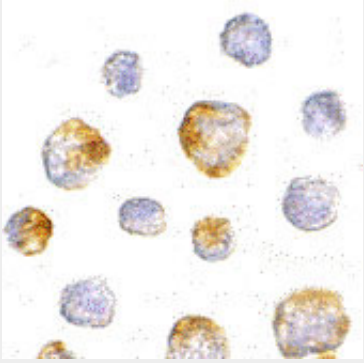
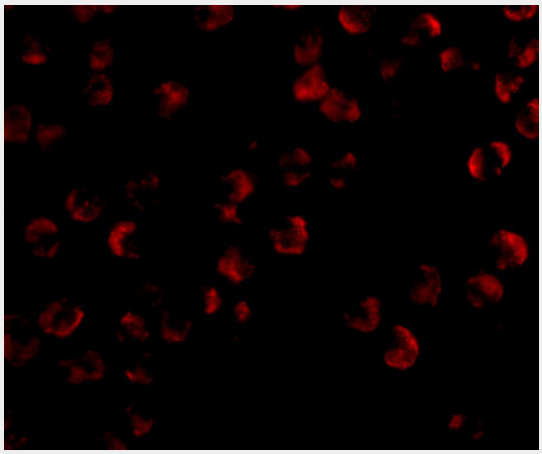


Immunocytochemistry of KIF5 in K562 cells with KIF5 antibody at 5 µg/mL.



Immunofluorescence of KIF5 in K562 cells with KIF5 antibody at 20 µg/mL.

KIF5 Antibody - Background

KIF5 Antibody: The kinesin superfamily proteins (KIFs) are microtubule-dependent motors that slide along microtubules and transport cellular organelles and mRNA to different parts of the cell. In neurons, KIF5 performs this role in an anterograde fashion from the neuronal cell body to axonal or dendritic terminals. KIF5 was initially differentiated from the ubiquitously expressed kinesin as being highly enriched in subsets of neurons and selectively concentrated in the cell body. Mutations in one of the three isoforms of KIF5 (KIF5A) are thought to be involved in hereditary spastic paraplegias.

KIF5 Antibody - References

Hirokawa N. mRNA transport in dendrites: RNA granules, motors and tracks. J. Neurosci. 2006; 26:7139-42.
Niclas J, Navone F, Hom-Booher N, et al. Cloning and localization of a conventional KIF5 motor expressed exclusively in neurons. Neuron 1994; 12:1059-72.
Fichera M, Lo Giudice M, Falco M, et al. Evidence of kinesin heavy chain (KIF5A) involvement in pure hereditary spastic paraplegia. Neurology 2004; 63:1108-10.