

KIF5B Antibody

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 110	Source/Isotype: Rabbit	UniProt ID: #P33176	Entrez-Gene Id: 3799
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Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. *Do not aliquot the antibody.*

Specificity/Sensitivity

KIF5B Antibody recognizes endogenous levels of total KIF5B protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys32 of human KIF5B protein. Antibodies are purified by peptide affinity chromatography.

Background

Kinesin superfamily proteins (KIFs) are molecular motors that drive directional, microtubule-dependent intracellular transport of membrane-bound organelles and other macromolecules (e.g., proteins, nucleic acids). The intracellular transport functions of KIFs are fundamentally important for a variety of cellular functions, including mitotic and meiotic division, motility/migration, hormone and neurotransmitter release, and differentiation (1-4). Disruptions to KIF-mediated intracellular transport have been linked with a variety of pathologies, ranging from tumorigenesis to defects in higher order brain function such as learning and memory (4-6).

KIF5 consists of three family members referred to as KIF5A, KIF5B, and KIF5C (7). KIF5A and KIF5C are specifically expressed in neurons whereas KIF5B is expressed ubiquitously (7-10). Targeted disruption of the *kif5B* gene resulted in embryonic lethality (11). These and other studies demonstrate that KIF5B plays an important role in the localization and distribution of major organelles, including the mitochondria and lysosome, and can contribute to autophagy (11-13). In addition, gene rearrangements involving KIF5B fusions to ALK and RET have been identified as drivers for lung cancer and other malignancies (14-18).

Background References

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Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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