

KIF13B (6E11): sc-517181

BACKGROUND

KIF13B (kinesin family member 13B) is also known as kinesin-like protein GAKIN or GAKIN and is a 1,826 amino acid protein that is widely expressed in tissues, with highest expression in brain and kidney. KIF13B is localized to the cytoplasm, as well as to the cytoskeleton, and is thought to be a microtubule-dependent motor protein which is able to bind to a variety of proteins in order to traffic them to various locations throughout the cell. KIF13B belongs to the kinesin-like protein family and possesses three domains typical of the kinesin-like protein family, namely an N-terminal motor domain with an ATP-binding motif, an FHA domain which is known to bind diverse cargos and a large stalk domain involved in protein-protein binding. Additionally, KIF13B has a microtubule-interacting sequence which is known as the CAP-Gly domain at its C-terminus. The CAP-Gly domain is highly conserved domain among eukaryotes, and in humans, defects in the CAP-Gly domain are implicated in many diseases affecting the trafficking of vesicles, neuromuscular junctions and lysosome proliferation.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: KIF13B (human) mapping to 8p12; Kif13b (mouse) mapping to 14 D1.

SOURCE

KIF13B (6E11) is a mouse monoclonal antibody raised against amino acids 1-100 representing partial length KIF13B of human origin.

PRODUCT

Each vial contains 100 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

KIF13B (6E11) is recommended for detection of KIF13B of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for KIF13B siRNA (h): sc-77793, KIF13B siRNA (m): sc-146465, KIF13B shRNA Plasmid (h): sc-77793-SH, KIF13B shRNA Plasmid (m): sc-146465-SH, KIF13B shRNA (h) Lentiviral Particles: sc-77793-V and KIF13B shRNA (m) Lentiviral Particles: sc-146465-V.

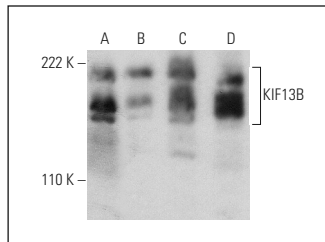
Molecular Weight of KIF13B: 200 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, Caki-1 cell lysate: sc-2224 or IMR-32 cell lysate: sc-2409.

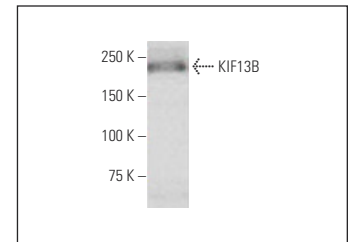
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



KIF13B (6E11): sc-517181. Western blot analysis of KIF13B expression in HeLa nuclear extract (A) and Caki-1 (B), IMR-32 (C) and EOC 20 (D) whole cell lysates.



KIF13B (6E11): sc-517181. Western blot analysis of KIF13B expression in HeLa S3 nuclear extract.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.