

KIF9 (N-13): sc-99958

BACKGROUND

Kinesin is a cytoskeletal motor protein involved in axonal transport and cell division. The kinesins constitute a large family of microtubule-dependent motor proteins, which are responsible for the distribution of numerous organelles, vesicles and macromolecular complexes throughout the cell. Individual kinesin members play crucial roles in cell division, intracellular transport and membrane trafficking events, including endocytosis and transcytosis. KIF9 (kinesin family member 9) is a member of the kinesin-like protein family and is a 790 amino acid protein that exists as 2 isoforms. KIF9 contains one kinesin-motor domain and KIF9's expression is developmentally regulated in tissues including brain, kidney, spleen, lung and testis. KIF9 is involved in keeping the MTOC (microtubule organizing center) connected to the nucleus during interphase, and is thought to interact with Gem, an association which may connect KIF9 to the cytoskeleton. In addition, KIF9 may act as a plus-ended microtubule motor that may exist as a homodimer.

REFERENCES

1. Nakagawa, T., Tanaka, Y., Matsuoka, E., Kondo, S., Okada, Y., Noda, Y., Kanai, Y. and Hirokawa, N. 1997. Identification and classification of 16 new kinesin superfamily (KIF) proteins in mouse genome. *Proc. Natl. Acad. Sci. USA* 94: 9654-9659.
2. Piddini, E., Schmid, J.A., de Martin, R. and Dotti, C.G. 2001. The Ras-like GTPase Gem is involved in cell shape remodelling and interacts with the novel kinesin-like protein KIF9. *EMBO J.* 20: 4076-4087.
3. Miki, H., Setou, M., Kaneshiro, K. and Hirokawa, N. 2001. All kinesin superfamily protein, KIF, genes in mouse and human. *Proc. Natl. Acad. Sci. USA* 98: 7004-7011.
4. Miki, H., Setou, M. and Hirokawa, N. 2003. Kinesin superfamily proteins (KIFs) in the mouse transcriptome. *Genome Res.* 13: 1455-1465.
5. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 607910. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: KIF9 (human) mapping to 3p21.31; Kif9 (mouse) mapping to 9 F2.

SOURCE

KIF9 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of KIF9 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-99958 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

KIF9 (N-13) is recommended for detection of KIF9 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other KIF family members.

KIF9 (N-13) is also recommended for detection of KIF9 in additional species, including equine and canine.

Suitable for use as control antibody for KIF9 siRNA (h): sc-78310, KIF9 siRNA (m): sc-146478, KIF9 shRNA Plasmid (h): sc-78310-SH, KIF9 shRNA Plasmid (m): sc-146478-SH, KIF9 shRNA (h) Lentiviral Particles: sc-78310-V and KIF9 shRNA (m) Lentiviral Particles: sc-146478-V.

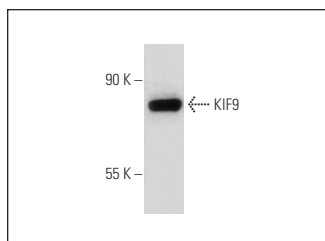
Molecular Weight of KIF9: 90 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



KIF9 (N-13): sc-99958. Western blot analysis of KIF9 expression in KNRK whole cell lysate.

STORAGE

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



Try **KIF9 (4E9): sc-517075**, our highly recommended monoclonal alternative to KIF9 (N-13).