

KIF25 (J-24): sc-133709

BACKGROUND

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. KIF25 (kinesin family member 25), also designated Kinesin-like protein 3 (KNSL3) is a 384 amino acid protein that contains one N-terminal kinesin-motor domain, which is responsible for the ATP-dependent movement of KIF25 across microtubules. The gene encoding KIF25 produces alternatively spliced transcripts, which are ubiquitously expressed.

REFERENCES

1. Vallee, R.B. and Shpetner, H.S. 1990. Motor proteins of cytoplasmic microtubules. *Annu. Rev. Biochem.* 59: 909-932.
2. Endow, S.A. 1991. The emerging kinesin family of microtubule motor proteins. *Trends Biochem. Sci.* 16: 221-225.
3. Brady, S.T. 1995. A kinesin medley: biochemical and functional heterogeneity. *Trends Cell Biol.* 5: 159-164.
4. Hamm-Alvarez S.F. 1998. Molecular motors and their role in membrane traffic. *Adv. Drug Deliv. Rev.* 29: 229-242.
5. Okamoto, S., Matsushima, M. and Nakamura, Y. 1998. Identification, genomic organization, and alternative splicing of KNSL3, a novel human gene encoding a kinesin-like protein. *Cytogenet. Cell Genet.* 83: 25-29.
6. 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.
7. Sarli, V. and Giannis, A. 2006. Inhibitors of mitotic kinesins: next-generation antimetotics. *ChemMedChem.* 1: 293-298.

CHROMOSOMAL LOCATION

Genetic locus: KIF25 (human) mapping to 6q27.

SOURCE

KIF25 (J-24) is a Protein A purified rabbit polyclonal antibody raised against synthetic KIF25 peptide of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

STORAGE

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

PROTOCOLS

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

APPLICATIONS

KIF25 (J-24) is recommended for detection of KIF25 of 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

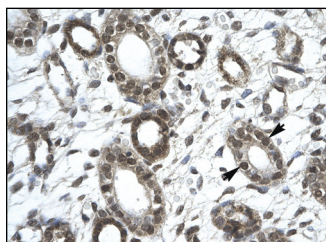
Suitable for use as control antibody for KIF25 siRNA (h): sc-95243, KIF25 shRNA Plasmid (h): sc-95243-SH and KIF25 shRNA (h) Lentiviral Particles: sc-95243-V.

Molecular Weight of KIF25: 41/35 kDa.

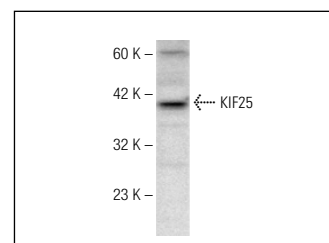
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



KIF25 (J-24): sc-133709. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human kidney tissue showing nuclear and cytoplasmic localization.



KIF25 (J-24): sc-133709. Western blot analysis of KIF25 expression in Hep G2 whole cell lysate.

RESEARCH USE

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