SANTA CRUZ BIOTECHNOLOGY, INC.

KIF24 (T-20): sc-247346

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. KIF24 (Kinesin family member 24) is a 1,368 amino acid cytoplasmic and cytoskeletal protein that belongs to the Kinesin-like protein family. Existing as four alternatively spliced isoforms, KIF24 contains one Kinesin-motor domain and a single SAM (sterile alpha motif) domain. KIF24 is phosphorylated on multiple amino acid residues and is encoded by a gene that maps to human chromosome 9p13.3.

REFERENCES

1. Hirokawa, N. 1998. Kinesin and dynein superfamily proteins and the mechanism of organelle transport. Science 279: 519-526.
2. Reese, E.L. and Haimo, L.T. 2000. Dynein, dynactin, and kinesin II's interaction with microtubules is regulated during bidirectional organelle transport. J. Cell Biol. 151: 155-166.
3. Miki, H., et al. 2001. All kinesin superfamily protein, KIF, genes in mouse and human. Proc. Natl. Acad. Sci. USA 98: 7004-7011.
4. Hirokawa, N., et al. 2009. Kinesin superfamily motor proteins and intracellular transport. Nat. Rev. Mol. Cell Biol. 10: 682-696.
5. Venturelli, E., et al. 2010. Is KIF24 a genetic risk factor for frontotemporal lobar degeneration? Neurosci. Lett. 482: 240-244.
6. Kobayashi, T., et al. 2011. Centriolar kinesin Kif24 interacts with CP110 to remodel microtubules and regulate ciliogenesis. Cell 145: 914-925.

CHROMOSOMAL LOCATION

Genetic locus: KIF24 (human) mapping to 9p13.3.

SOURCE

KIF24 (T-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of KIF24 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-247346 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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

KIF24 (T-20) is recommended for detection of KIF24 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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.

Suitable for use as control antibody for KIF24 siRNA (h): sc-92804, KIF24 shRNA Plasmid (h): sc-92804-SH and KIF24 shRNA (h) Lentiviral Particles: sc-92804-V.

Molecular Weight of KIF24 isoforms: 152/136/24/129 kDa.

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) 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.

RESEARCH USE

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