

KIF27 (T-12): sc-107235

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. KIF27 (kinesin family member 27) is a 1401 amino acid protein that contains one kinesin-motor domain, which is responsible for the ATP-dependent movement of KIF27 across microtubules. The gene encoding human KIF27 maps to chromosome 9q21.32, which consists of about 145 million bases and encodes nearly 900 genes. Hereditary hemorrhagic telangiectasia and familial dysautonomia are associated with the chromosome 9 genes. Chromosome 9 is partnered with chromosome 22 in the translocation leading to the aberrant production of Bcr-Abl fusion protein often found in leukemias.

REFERENCES

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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. Miki, H., et al. 2001. All kinesin superfamily protein, KIF, genes in mouse and human. *Proc. Natl. Acad. Sci. USA* 98: 7004-7011.
5. Humphray, S.J., et al. 2004. DNA sequence and analysis of human chromosome 9. *Nature* 429: 369-374.
6. Burmeister, T., et al. 2007. Atypical Bcr-Abl mRNA transcripts in adult acute lymphoblastic leukemia. *Haematologica* 92: 1699-1702.
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CHROMOSOMAL LOCATION

Genetic locus: KIF27 (human) mapping to 9q21.32; Kif27 (mouse) mapping to 13 B1.

SOURCE

KIF27 (T-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of KIF27 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-107235 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.

APPLICATIONS

KIF27 (T-12) is recommended for detection of KIF27 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.

Suitable for use as control antibody for KIF27 siRNA (h): sc-92572, KIF27 siRNA (m): sc-146474, KIF27 shRNA Plasmid (h): sc-92572-SH, KIF27 shRNA Plasmid (m): sc-146474-SH, KIF27 shRNA (h) Lentiviral Particles: sc-92572-V and KIF27 shRNA (m) Lentiviral Particles: sc-146474-V.

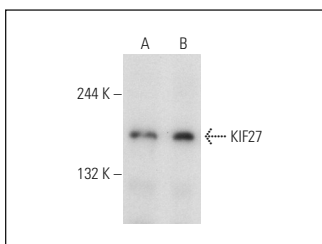
Molecular Weight of KIF27: 160 kDa.

Positive Controls: rat brain extract: sc-2392, Jurkat whole cell lysate: sc-2204 or SJRH30 cell lysate: sc-2287.

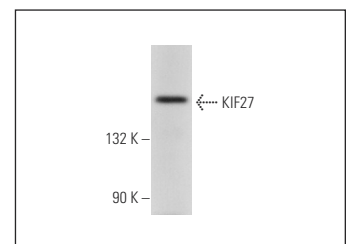
RECOMMENDED SECONDARY REAGENTS

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



KIF27 (T-12): sc-107235. Western blot analysis of KIF27 expression in Jurkat (A) and SJRH30 (B) whole cell lysates.



KIF27 (T-12): sc-107235. Western blot analysis of KIF27 expression in rat brain tissue extract.

RESEARCH USE

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



Try **KIF27 (A-9): sc-390766**, our highly recommended monoclonal alternative to KIF27 (T-12).