SANTA CRUZ BIOTECHNOLOGY, INC.

KIFC3 (H-300): sc-134681

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. KIFC3 (kinesin family member C3) is an 833 amino acid minus end-directed and microtubule-dependent motor protein that contains one kinesin-motor domain and belongs to the kinesin superfamily. A cytoplasmic and peripheral membrane protein, KIFC3 is found in the zona adherens of confluent epithelial cells and in renal distal tubules and the loops of Henle. Encoded by a gene that maps to human chromosome 16q21, KIFC3 plays a role in maintaining the integrity of the zona adherens and apically targeted transport.

REFERENCES

1. Bost-Usinger, L., et al. 1997. Multiple kinesin family members expressed in teleost retina and RPE include a novel C-terminal kinesin. Exp. Eye Res. 64: 781-794.
2. Hoang, E.H., et al. 1998. Cloning of a novel C-terminal kinesin (KIFC3) that maps to human chromosome 16q13-q21 and thus is a candidate gene for Bardet-Biedl syndrome. Genomics 52: 219-222.
3. Hoang, E., et al. 1999. Characterization of a novel C-kinesin (KIFC3) abundantly expressed in vertebrate retina and RPE. Exp. Eye Res. 69: 57-68.
4. Noda, Y., et al. 2001. KIFC3, a microtubule minus end-directed motor for the apical transport of annexin XIIIb-associated Triton-insoluble membranes. J. Cell Biol. 155: 77-88.
5. Xu, Y., et al. 2002. Role of KIFC3 motor protein in Golgi positioning and integration. J. Cell Biol. 158: 293-303.
6. Roni, V., et al. 2007. Mapping of transcription start sites of human retina expressed genes. BMC Genomics 8: 42.
7. Meng, W., et al. 2008. Anchorage of microtubule minus ends to adherens junctions regulates epithelial cell-cell contacts. Cell 135: 948-959.

CHROMOSOMAL LOCATION

Genetic locus: KIFC3 (human) mapping to 16q21; Kifc3 (mouse) mapping to 8 D1.

SOURCE

KIFC3 (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of KIFC3 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.

STORAGE

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

APPLICATIONS

KIFC3 (H-300) is recommended for detection of KIFC3 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).

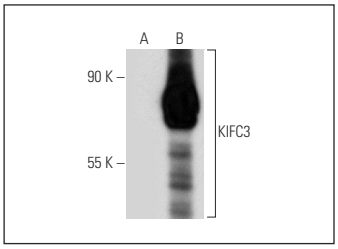
KIFC3 (H-300) is also recommended for detection of KIFC3 in additional species, including canine and porcine.

Suitable for use as control antibody for KIFC3 siRNA (h): sc-93395, KIFC3 siRNA (m): sc-146480, KIFC3 shRNA Plasmid (h): sc-93395-SH, KIFC3 shRNA Plasmid (m): sc-146480-SH, KIFC3 shRNA (h) Lentiviral Particles: sc-93395-V and KIFC3 shRNA (m) Lentiviral Particles: sc-146480-V.

Molecular Weight of KIFC3: 93 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224 or KIFC3 (h): 293T Lysate: sc-115768.

DATA



KIFC3 (H-300): sc-134681. Western blot analysis of KIFC3 expression in non-transfected: sc-117752 (**A**) and human KIFC3 transfected: sc-115768 (**B**) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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