

KIFC3 (D-9): sc-365494



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

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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.
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8. De, S., et al. 2009. Overexpression of kinesins mediates docetaxel resistance in breast cancer cells. *Cancer Res.* 69: 8035-8042.
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CHROMOSOMAL LOCATION

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

SOURCE

KIFC3 (D-9) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of KIFC3 of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

KIFC3 (D-9) is recommended for detection of KIFC3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

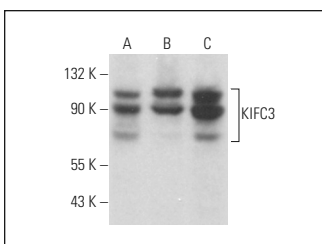
Molecular Weight of KIFC3: 93 kDa.

Positive Controls: F9 cell lysate: sc-2245, Neuro-2A whole cell lysate: sc-364185 or A-10 cell lysate: sc-3806.

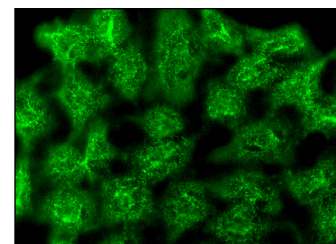
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



KIFC3 (D-9): sc-365494. Western blot analysis of KIFC3 expression in Neuro-2A (A), F9 (B) and A-10 (C) whole cell lysates.



KIFC3 (D-9): sc-365494. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization.

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 for detailed protocols and support products.