

KIF21A (N-19): sc-48566

BACKGROUND

The kinesin superfamily proteins (KIFs) are microtubule-dependent molecular motors that transport membranous organelles and protein complexes in a microtubule- and ATP-dependent manner. Cells use KIFs to tightly control the direction, destination and speed of transportation of a variety of important functional molecules, including mRNA. KIF21A is a 1,674 amino acid protein that contains three characteristic kinesin domains: an N-terminal head motor domain, a coiled-coil stalk region and a C-terminal tail. KIF21A is expressed in all nervous system tissues. Missense mutations in the KIF21A gene lead to congenital fibrosis of the extraocular muscles type 1 (CFEOM1). CFEOM1 refers to a group of congenital eye movement disorders characterized by non-progressive ophthalmoplegia that affects all of the extraocular muscles.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: KIF21A (human) mapping to 12q12; Kif21a (mouse) mapping to 15 E3.

SOURCE

KIF21A (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of KIF21A 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-48566 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

KIF21A (N-19) is recommended for detection of KIF21A of mouse, rat and 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).

KIF21A (N-19) is also recommended for detection of KIF21A in additional species, including canine and porcine.

Suitable for use as control antibody for KIF21A siRNA (h): sc-60886, KIF21A siRNA (m): sc-60887, KIF21A shRNA Plasmid (h): sc-60886-SH, KIF21A shRNA Plasmid (m): sc-60887-SH, KIF21A shRNA (h) Lentiviral Particles: sc-60886-V and KIF21A shRNA (m) Lentiviral Particles: sc-60887-V.

Molecular Weight of KIF21A: 187 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.

STORAGE

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

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.