

# KIF1B (H-190): sc-28540

## 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. KIF1B is a member of the KIF1/Unc104 family of kinesin-like proteins that are involved in the transport of mitochondria or synaptic vesicles in axons. KIF1B is an amino-terminal-type motor protein that is ubiquitously expressed, with the most abundant levels in differentiated nerve cells. The human KIF1B gene maps to chromosome 1p36.22. Defects in axonal transport due to mutations at the KIF1B gene can underlie the human peripheral neuropathy phenotype. The mouse KIF1B gene generates an alternatively spliced transcript, which produces two isoforms.

## CHROMOSOMAL LOCATION

Genetic locus: KIF1B (human) mapping to 1p36.22; Kif1b (mouse) mapping to 4 E2.

## SOURCE

KIF1B (H-190) is a rabbit polyclonal antibody raised against amino acids 964-1153 mapping at the C-terminus of KIF1B 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.

## APPLICATIONS

KIF1B (H-190) is recommended for detection of KIF1B 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

KIF1B (H-190) is also recommended for detection of KIF1B in additional species, including equine and porcine.

Suitable for use as control antibody for KIF1B siRNA (h): sc-35749, KIF1B siRNA (m): sc-35750, KIF1B shRNA Plasmid (h): sc-35749-SH, KIF1B shRNA Plasmid (m): sc-35750-SH, KIF1B shRNA (h) Lentiviral Particles: sc-35749-V and KIF1B shRNA (m) Lentiviral Particles: sc-35750-V.

Molecular Weight of KIF1B isoform 1: 204 kDa.

Molecular Weight of KIF1B isoform 2 $\alpha$ : 199 kDa.

Molecular Weight of KIF1B isoform 3 $\beta$ : 130 kDa.

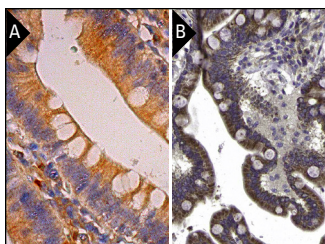
Molecular Weight of KIF1B isoform 4: 205 kDa.

Positive Controls: JAR cell lysate: sc-2276, HeLa whole cell lysate: sc-2200 or IMR-32 cell lysate: sc-2409.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



KIF1B (H-190): sc-28540. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic staining of glandular cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing cytoplasmic staining of glandular cells magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program (B).

## SELECT PRODUCT CITATIONS

- Schlisio, S., et al. 2008. The kinesin KIF1Bb acts downstream from EglN3 to induce apoptosis and is a potential 1p36 tumor suppressor. *Genes Dev.* 22: 884-893.
- Capparelli, C., et al. 2012. Autophagy and senescence in cancer-associated fibroblasts metabolically supports tumor growth and metastasis via glycolysis and ketone production. *Cell Cycle* 11: 2285-2302.

## 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.



Try **KIF1B (E-12): sc-376246**, our highly recommended monoclonal alternative to KIF1B (H-190).