

# KIF3B (H-60): sc-50456

## 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. Members of the heterotrimeric kinesin II family of microtubule associated motors generally contain two different motor subunits from the KIF3 family, which includes KIF3A, B and C. KIF3 isoforms mediate anterograde transport of membrane bound organelles in neurons and melanosomes, transport between the endoplasmic reticulum and the Golgi, and transport of protein complexes within cilia and flagella required for their morphogenesis. The human KIF3B gene maps to chromosome 20q11.21 and encodes a 747-amino acid protein that is ubiquitously expressed. The KIF3B protein is essential for the left-right determination through a mechanism that produces a putative morphogen gradient along the left-right axis in the node.

## CHROMOSOMAL LOCATION

Genetic locus: KIF3B (human) mapping to 20q11.21; Kif3b (mouse) mapping to 2 H1.

## SOURCE

KIF3B (H-60) is a rabbit polyclonal antibody raised against amino acids 666-725 mapping near the C-terminus of KIF3B 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

KIF3B (H-60) is recommended for detection of KIF3B 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).

KIF3B (H-60) is also recommended for detection of KIF3B in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for KIF3B siRNA (h): sc-43376, KIF3B siRNA (m): sc-43377, KIF3B shRNA Plasmid (h): sc-43376-SH, KIF3B shRNA Plasmid (m): sc-43377-SH, KIF3B shRNA (h) Lentiviral Particles: sc-43376-V and KIF3B shRNA (m) Lentiviral Particles: sc-43377-V.

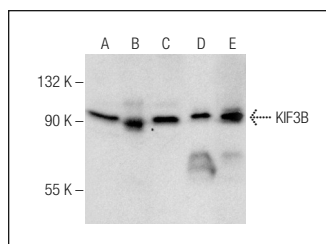
Molecular Weight of KIF3B: 85 kDa.

Positive Controls: A2058 whole cell lysate: sc-364178, Caki-1 cell lysate: sc-2224 or mouse brain extract: sc-2253.

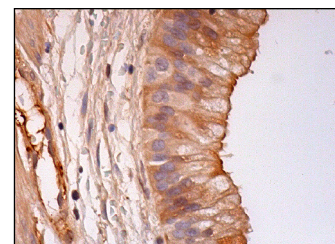
## RECOMMENDED SECONDARY REAGENTS

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



KIF3B (H-60): sc-50456. Western blot analysis of KIF3B expression in A2058 (A), T-47D (B) and Caki-1 (C) whole cell lysates and rat brain (D) and mouse brain (E) tissue extracts.



KIF3B (H-60): sc-50456. Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing cytoplasmic and membrane staining of glandular cells.

## SELECT PRODUCT CITATIONS

1. Keil, R., et al. 2009. Targeting of p0071 to the midbody depends on KIF3. J. Cell Sci. 122: 1174-1183.
2. Aguado-Fraile, E., et al. 2012. miR-127 protects proximal tubule cells against ischemia/reperfusion: identification of kinesin family member 3B as miR-127 target. PLoS ONE 7: e44305.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

**MONOS**  
Satisfaction  
Guaranteed

Try **KIF3B (G-5): sc-514165** or **KIF3B (35): sc-136353**, our highly recommended monoclonal alternatives to KIF3B (H-60).