

# KIF17 (H-280): sc-50455

## 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. Kinesins also play crucial roles in cell division, intracellular transport and membrane trafficking events including endocytosis and transcytosis. KIF17 is a neuronal-specific kinesin that transports vesicles containing N-methyl-D-aspartate (NMDA) receptor 2B along microtubules.

## REFERENCES

- Hamm-Alvarez, S.F. 1998. Molecular motors and their role in membrane traffic. *Adv. Drug Deliv. Rev.* 29: 229-242.
- Cole D.G. 1999. Kinesin-II, the heteromeric kinesin. *Cell. Mol. Life Sci.* 56: 217-226.
- Setou, M., et al. 2000. Kinesin superfamily motor protein KIF17 and mLin-10 in NMDA receptor-containing vesicle transport. *Science* 288: 1796-1802.
- Yang, Z., et al. 2001. Molecular cloning and functional analysis of mouse C-terminal kinesin motor KIFC3. *Mol. Cell. Biol.* 21: 765-770.

## CHROMOSOMAL LOCATION

Genetic locus: KIF17 (human) mapping to 1p36.12; Kif17 (mouse) mapping to 4 D3.

## SOURCE

KIF17 (H-280) is a rabbit polyclonal antibody raised against amino acids 741-1020 mapping near the C-terminus of KIF17 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

KIF17 (H-280) is recommended for detection of KIF17 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).

KIF17 (H-280) is also recommended for detection of KIF17 in additional species, including equine and canine.

Suitable for use as control antibody for KIF17 siRNA (h): sc-60024, KIF17 siRNA (m): sc-60025, KIF17 shRNA Plasmid (h): sc-60024-SH, KIF17 shRNA Plasmid (m): sc-60025-SH, KIF17 shRNA (h) Lentiviral Particles: sc-60024-V and KIF17 shRNA (m) Lentiviral Particles: sc-60025-V.

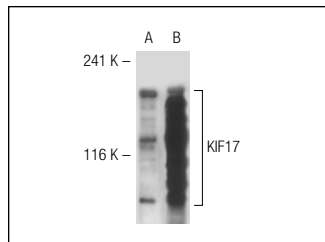
Molecular Weight of KIF17: 120 kDa.

Positive Controls: KIF17 (h): 293T Lysate: sc-117100, mouse brain extract: sc-2253 or U-87 MG cell lysate: sc-2411.

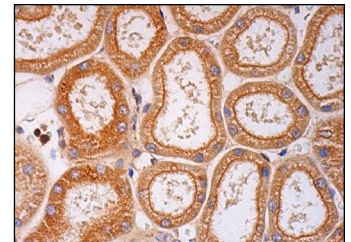
## RECOMMENDED SECONDARY REAGENTS

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



KIF17 (H-280): sc-50455. Western blot analysis of KIF17 expression in non-transfected: sc-117752 (A) and human KIF17 transfected: sc-117100 (B) 293T whole cell lysates.



KIF17 (H-280): sc-50455. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic and apical membrane staining of cells in tubules.

## SELECT PRODUCT CITATIONS

- Dhar, S.S. and Wong-Riley, M.T. 2011. The kinesin superfamily protein KIF17 is regulated by the same transcription factor (NRF-1) as its cargo NR2B in neurons. *Biochim. Biophys. Acta* 1813: 403-411.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **KIF17 (D-8): sc-137040** or **KIF17 (F-4): sc-393423**, our highly recommended monoclonal alternatives to KIF17 (H-280).