

KIF17 (h): 293T Lysate: sc-117100

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

1. Hamm-Alvarez, S.F. 1998. Molecular motors and their role in membrane traffic. *Adv. Drug Deliv. Rev.* 29: 229-242.
2. Cole D.G. 1999. Kinesin-II, the heteromeric kinesin. *Cell. Mol. Life Sci.* 56: 217-226.
3. Setou, M., Nakagawa, T., Seog, D.H. and Hirokawa, N. 2000. Kinesin superfamily motor protein KIF17 and mLin-10 in NMDA receptor-containing vesicle transport. *Science* 288: 1796-1802.
4. Yang, Z., Xia, C.H., Roberts, E.A., Bush, K., Nigam, S.K. and Goldstein, L.S. 2001. Molecular cloning and functional analysis of mouse C-terminal kinesin motor KIFC3. *Mol. Cell. Biol.* 21: 765-770.
5. Wong, R.W., Setou, M., Teng, J., Takei, Y. and Hirokawa, N. 2002. Overexpression of motor protein KIF17 enhances spatial and working memory in transgenic mice. *Proc. Natl. Acad. Sci. USA* 99: 14500-14505.
6. Guillaud, L., Setou, M. and Hirokawa, N. 2003. KIF17 dynamics and regulation of NR2B trafficking in hippocampal neurons. *J. Neurosci.* 23: 131-140.
7. Hirokawa, N. and Takemura, R. 2004. Kinesin superfamily proteins and their various functions and dynamics. *Exp. Cell Res.* 301: 50-59.

CHROMOSOMAL LOCATION

Genetic locus: KIF17 (human) mapping to 1p36.12.

PRODUCT

KIF17 (h): 293T Lysate represents a lysate of human KIF17 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

KIF17 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive KIF17 antibodies. Recommended use: 10-20 µl per lane.

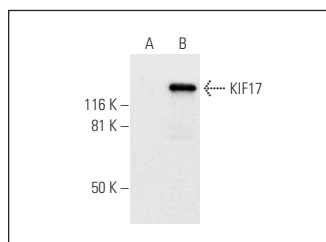
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

KIF17 (B-2): sc-393253 is recommended as a positive control antibody for Western Blot analysis of enhanced human KIF17 expression in KIF17 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



KIF17 (B-2): sc-393253. Western blot analysis of KIF17 expression in non-transfected: sc-117752 (A) and human KIF17 transfected: sc-117100 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.