

KIF2A (m): 293T Lysate: sc-121213

BACKGROUND

Kinesin is a cytoskeletal motor protein involved in axonal transport and cell division. The kinesin superfamily proteins (KIFs) are motor proteins that transport vesicles important for axonal extension in developing neurons, such as macromolecules and membranous organelles, along microtubules. KIFs are involved in neuronal function and development. Kinesin heavy chain member 2 (KIF2), also designated KNS2, is a microtubule-associated central type motor protein and belongs to the kinesin-like protein family. KIF2A is abundantly present in developing axons. The synthetic retinoid N-(4-hydroxyphenyl)-all-trans-retinamide HPR, a cancer chemopreventive agent *in vivo* and an apoptotic cell death inducer *in vitro*, regulates KIF2A.

REFERENCES

1. Debernardi, S., Fontanella, E., De Gregorio, L., Pierotti, MA. and Delia, D. 1997. Identification of a novel human kinesin-related gene (HK2) by the cDNA δ display technique. *Genomics* 42: 67-73.
2. Morfini, G., Quiroga, S., Rosa, A., Kosik, K. and Cáceres, A. 1997. Suppression of KIF2 in PC-12 cells alters the distribution of a growth cone nonsynaptic membrane receptor and inhibits neurite extension. *J. Cell Biol.* 138: 657-669.
3. Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 602591. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Homma, N., Takei, Y., Tanaka, Y., Nakata, T., Terada, S., Kikkawa, M., Noda, Y. and Hirokawa, N. 2003. Kinesin superfamily protein 2A (KIF2A) functions in suppression of collateral branch extension. *Cell* 114: 229-239.
5. 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: Kif2a (mouse) mapping to 13 D2.1.

PRODUCT

KIF2A (m): 293T Lysate represents a lysate of mouse KIF2A transfected 293T cells and is provided as 100 μ g protein in 200 μ l 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

KIF2A (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive KIF2A antibodies. Recommended use: 10-20 μ l per lane.

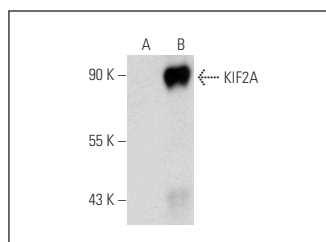
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

KIF2A (D-7): sc-271471 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse KIF2A expression in KIF2A transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

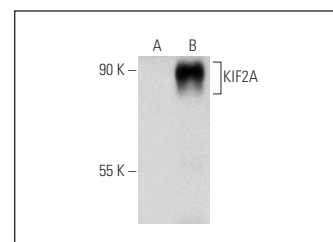
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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



KIF2A (D-7): sc-271471. Western blot analysis of KIF2A expression in non-transfected: sc-117752 (A) and mouse KIF2A transfected: sc-121213 (B) 293T whole cell lysates.



KIF2A (G-11): sc-271005. Western blot analysis of KIF2A expression in non-transfected: sc-117752 (A) and mouse KIF2A transfected: sc-121213 (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.