

KIF12 (h): 293T Lysate: sc-111091

BACKGROUND

Kinesin is a cytoskeletal motor protein involved in axonal transport and cell division. The Kinesin superfamily proteins (KIFs) are microtubule-dependent molecular motors that transport membranous organelles and protein complexes in a microtubule- and ATP-dependent manner. Cells use KIFs to tightly control the direction, destination and speed of transportation of a variety of important functional molecules, including mRNA. KIFs are involved in neuronal function and development. Kinesin family member 12 (KIF12) is a Kinesin-like 651 amino acid protein which is involved in mitotically linked cytokinesis. KIF12 is required during mitosis for normal Myosin II localization and during late anaphase and telophase for normal nuclear separation. The KIF12 gene consists of a KISc domain, a coiled-coil domain with an internal hinge region and a C-terminal tail domain. KIF12 mRNA is expressed in fetal liver, adult brain, pancreatic islet, kidney tumors, and uterine and pancreatic cancers.

REFERENCES

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- Mrug, M., Li, R., Cui, X., Schoeb, T.R., Churchill, G.A. and Guay-Woodford, L.M. 2005. Kinesin family member 12 is a candidate polycystic kidney disease modifier in the cpk mouse. *J. Am. Soc. Nephrol.* 16: 905-916.
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CHROMOSOMAL LOCATION

Genetic locus: KIF12 (human) mapping to 9q32.

PRODUCT

KIF12 (h): 293T Lysate represents a lysate of human KIF12 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

KIF12 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive KIF12 antibodies. Recommended use: 10-20 µl per lane.

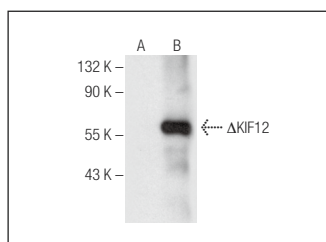
Control 293T Lysate: sc-110752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

KIF12 (H-5): sc-376980 is recommended as a positive control antibody for Western Blot analysis of enhanced human KIF12 expression in KIF12 transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

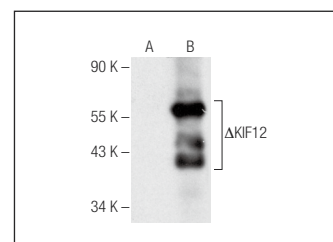
RECOMMENDED SUPPORT REAGENTS

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



KIF12 (H-5): sc-376980. Western blot analysis of KIF12 expression in non-transfected: sc-117752 (A) and truncated human KIF12 transfected: sc-111091 (B) 293T whole cell lysates.



KIF12 (C-4): sc-376572. Western blot analysis of KIF12 expression in non-transfected: sc-117752 (A) and truncated human KIF12 transfected: sc-111091 (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.