

LIMK-1 (H-12): sc-515585

BACKGROUND

Proteins containing LIM motifs are typically involved in cell fate determination and growth control. A family of proteins designated LIM kinases, including LIMK-1 and LIMK-2, has been identified. LIMK-1 has been shown to regulate the stabilization of F-Actin structures and Cofilin activity, indicating that LIMK-1 plays a role in a signaling pathway involved in the regulation of cell motility and morphogenesis. LIMK-1 inhibits neuronal differentiation of PC12 cells and is thought to act by interfering with events downstream of MAPK activation. Expression patterns of LIMK-1 and LIMK-2 suggest that these proteins may have different functions during development. A truncated form of LIMK-2 has been identified in adult testis that is thought to arise from an alternative initiation exon.

CHROMOSOMAL LOCATION

Genetic locus: LIMK1 (human) mapping to 7q11.23; Limk1 (mouse) mapping to 5 G2.

SOURCE

LIMK-1 (H-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 624-647 at the C-terminus of LIMK-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

LIMK-1 (H-12) is available conjugated to agarose (sc-515585 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515585 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515585 PE), fluorescein (sc-515585 FITC), Alexa Fluor® 488 (sc-515585 AF488), Alexa Fluor® 546 (sc-515585 AF546), Alexa Fluor® 594 (sc-515585 AF594) or Alexa Fluor® 647 (sc-515585 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515585 AF680) or Alexa Fluor® 790 (sc-515585 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-515585 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

LIMK-1 (H-12) is recommended for detection of LIMK-1 long and short forms of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for LIMK-1 siRNA (h): sc-35810, LIMK-1 siRNA (m): sc-35811, LIMK-1 shRNA Plasmid (h): sc-35810-SH, LIMK-1 shRNA Plasmid (m): sc-35811-SH, LIMK-1 shRNA (h) Lentiviral Particles: sc-35810-V and LIMK-1 shRNA (m) Lentiviral Particles: sc-35811-V.

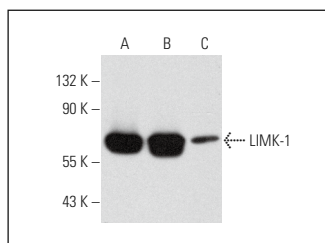
Molecular Weight of LIMK-1: 72 kDa.

Positive Controls: Ramos cell lysate: sc-2216, U-87 MG cell lysate: sc-2411 or NRK whole cell lysate: sc-364197.

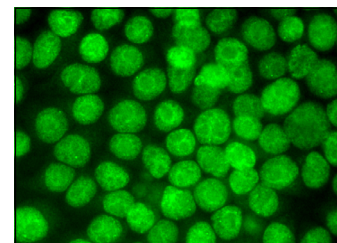
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



LIMK-1 (H-12): sc-515585. Western blot analysis of LIMK-1 expression in U-87 MG (A), Ramos (B) and NRK (C) whole cell lysates.



LIMK-1 (H-12): sc-515585. Immunofluorescence staining of formalin-fixed HeLa cells showing nuclear localization.

SELECT PRODUCT CITATIONS

- Soundararajan, A., et al. 2022. Novel insight into the role of clusterin on intraocular pressure regulation by modifying actin polymerization and extracellular matrix remodeling in the trabecular meshwork. *J. Cell. Physiol.* 237: 3012-3029.
- Li, X., et al. 2023. Involvement of paired immunoglobulin-like receptor B in cognitive dysfunction through hippocampal-dependent synaptic plasticity impairments in mice subjected to chronic sleep restriction. *Mol. Neurobiol.* 60: 1132-1149.
- Xu, K., et al. 2023. The Slingshot phosphatase 2 is required for acrosome biogenesis during spermatogenesis in mice. *Elife* 12: e83129.
- Wang, T., et al. 2023. Identification of the novel role of sterol regulatory element binding proteins (SREBPs) in mechanotransduction and intraocular pressure regulation. *FASEB J.* 37: e23248.
- Wang, T., et al. 2023. Identification of the novel role of sterol regulatory element binding proteins (SREBPs) in mechanotransduction and intraocular pressure regulation. *bioRxiv*. E-published.

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.

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