

LIMK-2 (A-12): sc-365414

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: LIMK2 (human) mapping to 22q12.2; Limk2 (mouse) mapping to 11 A1.

SOURCE

LIMK-2 (A-12) is a mouse monoclonal antibody raised against amino acids 561-638 mapping at the C-terminus of LIMK-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

LIMK-2 (A-12) is available conjugated to agarose (sc-365414 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365414 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365414 PE), fluorescein (sc-365414 FITC), Alexa Fluor® 488 (sc-365414 AF488), Alexa Fluor® 546 (sc-365414 AF546), Alexa Fluor® 594 (sc-365414 AF594) or Alexa Fluor® 647 (sc-365414 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365414 AF680) or Alexa Fluor® 790 (sc-365414 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

LIMK-2 (A-12) is recommended for detection of LIMK-2 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-2 siRNA (h): sc-35812, LIMK-2 siRNA (m): sc-35813, LIMK-2 shRNA Plasmid (h): sc-35812-SH, LIMK-2 shRNA Plasmid (m): sc-35813-SH, LIMK-2 shRNA (h) Lentiviral Particles: sc-35812-V and LIMK-2 shRNA (m) Lentiviral Particles: sc-35813-V.

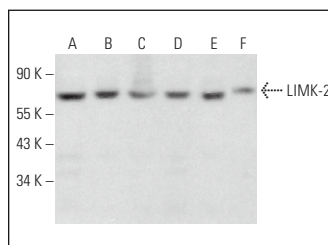
Molecular Weight of LIMK-2: 65 kDa.

Positive Controls: JAR cell lysate: sc-2276, Hep G2 cell lysate: sc-2227 or LIMK-2 (h2): 293T Lysate: sc-129012.

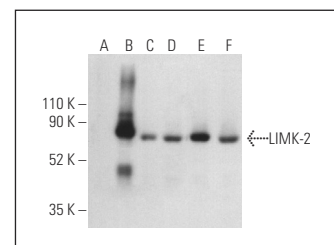
RECOMMENDED SUPPORT REAGENTS

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-2 (A-12): sc-365414. Western blot analysis of LIMK-2 expression in F9 (A), P19 (B), c4 (C), Neuro-2A (D), BC₃H1 (E) and EOC 20 (F) whole cell lysates.



LIMK-2 (A-12): sc-365414. Western blot analysis of LIMK-2 expression in non-transfected 293T: sc-117752 (A), human LIMK-2 transfected 293T: sc-129012 (B), JAR (C), Hep G2 (D), P19 (E) and F9 (F) whole cell lysates. Detection reagent used: m-IgG_{2a} BP-HRP: sc-542731.

SELECT PRODUCT CITATIONS

- Oikawa, S., et al. 2018. Role of endothelial microRNA-23 clusters in angiogenesis *in vivo*. *Am. J. Physiol. Heart Circ. Physiol.* 315: H838-H846.
- Wang, X., et al. 2021. Alantolactone suppresses the metastatic phenotype and induces the apoptosis of glioblastoma cells by targeting LIMK kinase activity and activating the Cofilin/G-Actin signaling cascade. *Int. J. Mol. Med.* 47: 68.
- Xu, K., et al. 2023. The Slingshot phosphatase 2 is required for acrosome biogenesis during spermatogenesis in mice. *Elife* 12: e83129.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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

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