SANTA CRUZ BIOTECHNOLOGY, INC.

Lnk (A-12): sc-393709

The Power to Question

BACKGROUND

APS (adapter molecule containing PH and SH2 domains), SH2-B and Lnk compose a family of adapter proteins, which contain a pleckstrin homology (PH) domain, an SH2 domain and a tyrosine phosphorylation site. Stimulation of B cell receptor (Bcr) or T cell receptor (TCR) results in the phosphorylation of the immunoreceptor tyrosine-based activation motif (ITAM) of Bcr, TCR and several substrates. APS, SH2-B and Lnk may bind to the ITAM domain of Bcr and TCR. Lnk is tyrosine phosphorylated in response to TCR stimulation and APS has been shown to be tyrosine phosphorylated in response to Bcr stimulation.

CHROMOSOMAL LOCATION

Genetic locus: SH2B3 (human) mapping to 12q24.12; Sh2b3 (mouse) mapping to 5 F.

SOURCE

Lnk (A-12) is a mouse monoclonal antibody raised against amino acids 447-575 mapping at the C-terminus of Lnk of human origin.

PRODUCT

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

Lnk (A-12) is available conjugated to agarose (sc-393709 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393709 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393709 PE), fluorescein (sc-393709 FITC), Alexa Fluor® 488 (sc-393709 AF488), Alexa Fluor® 546 (sc-393709 AF546), Alexa Fluor® 594 (sc-393709 AF594) or Alexa Fluor® 647 (sc-393709 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393709 AF680) or Alexa Fluor® 790 (sc-393709 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

Lnk (A-12) is recommended for detection of Lnk 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 Lnk siRNA (h): sc-40330, Lnk siRNA (m): sc-40331, Lnk shRNA Plasmid (h): sc-40330-SH, Lnk shRNA Plasmid (m): sc-40331-SH, Lnk shRNA (h) Lentiviral Particles: sc-40330-V and Lnk shRNA (m) Lentiviral Particles: sc-40331-V.

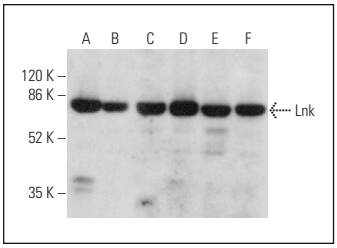
Molecular Weight of Lnk: 68 kDa.

Positive Controls: WEHI-231 whole cell lysate: sc-2213, c4 whole cell lysate: sc-364186 or RAW 264.7 whole cell lysate: sc-2211.

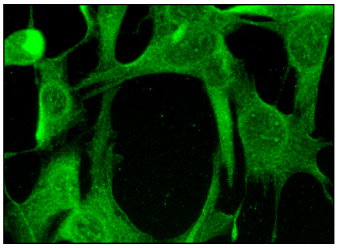
RECOMMENDED SUPPORT REAGENTS

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



Lnk (A-12): sc-393709. Western blot analysis of Lnk expression in WEHI-231 (**A**), U-251-MG (**B**), c4 (**C**), RAW 264.7 (**D**), NIH/3T3 (**E**) and PC-12 (**F**) whole cell lysates.



Lnk (A-12): sc-393709. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing membrane and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Kang, D., et al. 2015. EBV BART microRNAs target multiple pro-apoptotic cellular genes to promote epithelial cell survival. PLoS Pathog. 11: e1004979.
2. Lee, S.H., et al. 2015. Selective interference targeting of Lnk in umbilical cord-derived late endothelial progenitor cells improves vascular repair, following hind limb ischemic injury, via regulation of JAK2/Stat3 signaling. Stem Cells 33: 1490-1500.
3. Ding, L.W., et al. 2019. Lnk suppresses interferon signaling in melanoma. Nat. Commun. 10: 2230.
4. Klatt, D., et al. 2020. Competitive sgRNA screen identifies p38 MAPK as a druggable target to improve HSPC engraftment. Cells 9: 2194.
5. Wang, L.N., et al. 2022. TGF-β1/SH2B3 axis regulates anoikis resistance and EMT of lung cancer cells by modulating JAK2/Stat3 and SHP2/Grb2 signaling pathways. Cell Death Dis. 13: 472.

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.