

leupaxin (B-2): sc-376820

BACKGROUND

Leupaxin, also designated LDPL or LPXN, is a 386 amino acid cytoplasmic protein and member of the paxillin family. Leupaxin is highly expressed in lymphoid tissues such as spleen, lymph node, thymus and appendix, with low expression in bone marrow and fetal liver. Consisting of four leucine-rich LD-motifs at the N-terminus and four LIM domains at the C-terminus, leupaxin associates with a member of the focal adhesion kinase family, PYK2, in lymphoid cells. The leupaxin and PYK2 complex is involved in cell type-specific signaling in which it regulates signaling at sites of adhesion. Leupaxin is a substrate for tyrosine kinase in lymphoid cells and is suggested to participate in and be regulated by tyrosine kinase activity. Leupaxin may be a potential progression marker for a subset of prostate cancer and may act as a novel coactivator of the androgen receptor.

REFERENCES

1. Lipsky, B.P., et al. 1998. Leupaxin is a novel LIM domain protein that forms a complex with PYK2. *J. Biol. Chem.* 273: 11709-11713.
2. Gupta, A., et al. 2003. Leupaxin is a critical adaptor protein in the adhesion zone of the osteoclast. *J. Bone Miner. Res.* 18: 669-685.
3. Watanabe, N., et al. 2005. Leupaxin binds to PEST domain tyrosine phosphatase PEP. *Mol. Cell. Biochem.* 269: 13-17.
4. Chew, V., et al. 2007. Leupaxin negatively regulates B cell receptor signaling. *J. Biol. Chem.* 282: 27181-27191.
5. Sundberg-Smith, L.J., et al. 2008. The LIM protein leupaxin is enriched in smooth muscle and functions as an serum response factor cofactor to induce smooth muscle cell gene transcription. *Circ. Res.* 102: 1502-1511.

CHROMOSOMAL LOCATION

Genetic locus: LPXN (human) mapping to 11q12.1.

SOURCE

leupaxin (B-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 13-45 near the N-terminus of leupaxin 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.

leupaxin (B-2) is available conjugated to agarose (sc-376820 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376820 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376820 PE), fluorescein (sc-376820 FITC), Alexa Fluor® 488 (sc-376820 AF488), Alexa Fluor® 546 (sc-376820 AF546), Alexa Fluor® 594 (sc-376820 AF594) or Alexa Fluor® 647 (sc-376820 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376820 AF680) or Alexa Fluor® 790 (sc-376820 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-376820 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

leupaxin (B-2) is recommended for detection of leupaxin of 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 leupaxin siRNA (h): sc-96309, leupaxin shRNA Plasmid (h): sc-96309-SH and leupaxin shRNA (h) Lentiviral Particles: sc-96309-V.

Molecular Weight of leupaxin doublet: 45/47 kDa.

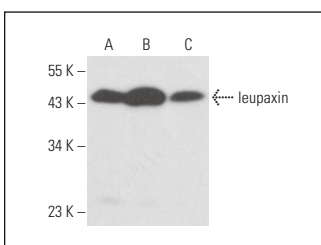
Positive Controls: Jurkat whole cell lysate: sc-2204, Ramos cell lysate: sc-2216 or Raji whole cell lysate: sc-364236.

RECOMMENDED SUPPORT REAGENTS

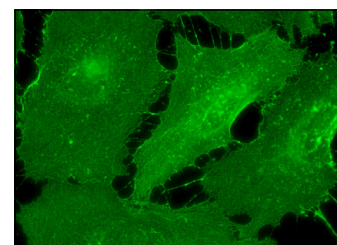
To ensure optimal results, the following support reagents are recommended:

- 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



leupaxin (B-2): sc-376820. Western blot analysis of leupaxin expression in Raji (A), Ramos (B) and Jurkat (C) whole cell lysates.



leupaxin (B-2): sc-376820. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

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.

PROTOCOLS

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