

leupaxin (F-12): sc-376903

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 a serum response factor cofactor to induce smooth muscle cell gene transcription. *Circ. Res.* 102: 1502-1511.
6. Kaufuss, S., et al. 2008. Leupaxin, a novel coactivator of the androgen receptor, is expressed in prostate cancer and plays a role in adhesion and invasion of prostate carcinoma cells. *Mol. Endocrinol.* 22: 1606-1621.
7. Kaufuss, S., et al. 2009. Leupaxin acts as a mediator in prostate carcinoma progression through deregulation of p120catenin expression. *Oncogene* 28: 3971-3982.

CHROMOSOMAL LOCATION

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

SOURCE

leupaxin (F-12) 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 IgG₃ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-376903 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

leupaxin (F-12) 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.

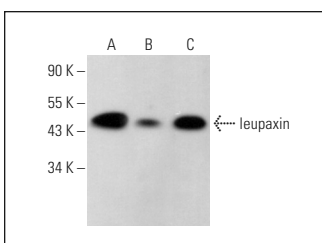
Molecular Weight of leupaxin doublet: 45/47 kDa.

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

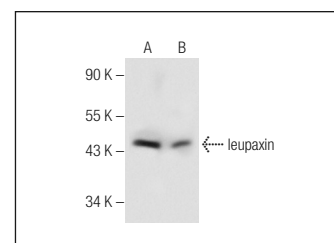
RECOMMENDED SUPPORT REAGENTS

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 (F-12): sc-376903. Western blot analysis of leupaxin expression in Raji (A), Jurkat (B) and CCRF-CEM (C) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



leupaxin (F-12): sc-376903. Western blot analysis of leupaxin expression in Raji (A) and Ramos (B) whole cell lysates.

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.