

LANPL (C-1): sc-514662

BACKGROUND

The Anp32 family consists of 32 evolutionarily-conserved proteins and is included within the superfamily of leucine-rich repeat (LRR) proteins. Leucine-rich acidic nuclear protein-like (LANPL), also called ANP32E or Cpd1, is a member of the Anp32 family. LANPL is located in the cytoplasm of peripheral blood leukocytes, colon, small intestine, prostate, thymus, spleen, skeletal muscle, liver and kidney. It has also been detected in the nucleus, cytoplasm and membrane of multiple brain regions. Upon phosphorylation, LANPL colocalizes and inhibits protein phosphatase 2A (PP2A), but does not inhibit PP1. LANPL modulates cell signalling and transduction of gene expression to regulate the morphology and dynamics of the cytoskeleton, cell adhesion, neural development and cerebellar morphogenesis.

REFERENCES

1. Matsubae, M., et al. 2000. Characterization of the nuclear transport of a novel leucine-rich acidic nuclear protein-like protein. *FEBS Lett.* 468: 171-175.
2. Radrizzani, M., et al. 2001. Differential expression of CPD1 during postnatal development in the mouse cerebellum. *Brain Res.* 907: 162-174.
3. Jiang, M., et al. 2002. Molecular cloning and characterization of a novel human gene (ANP32E alias LANPL) from human fetal brain. *Cytogenet. Genome Res.* 97: 68-71.
4. Santa-Coloma, T.A. 2004. Anp32e (Cpd1) and related protein phosphatase 2 inhibitors. *Cerebellum* 2: 310-320.
5. Matilla, A. and Radrizzani, M. 2005. The Anp32 family of proteins containing leucine-rich repeats. *Cerebellum* 4: 7-18.
6. Costanzo, R.V., et al. 2006. Anp32e/Cpd1 regulates protein phosphatase 2A activity at synapses during synaptogenesis. *Eur. J. Neurosci.* 23: 309-324.

CHROMOSOMAL LOCATION

Genetic locus: ANP32E (human) mapping to 1q21.2; Anp32e (mouse) mapping to 3 F2.1.

SOURCE

LANPL (C-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 46-68 near the N-terminus of LANPL of human origin.

PRODUCT

Each vial contains 200 µg IgM 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-514662 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

LANPL (C-1) is recommended for detection of LANPL 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 LANPL siRNA (h): sc-75409, LANPL siRNA (m): sc-75410, LANPL shRNA Plasmid (h): sc-75409-SH, LANPL shRNA Plasmid (m): sc-75410-SH, LANPL shRNA (h) Lentiviral Particles: sc-75409-V and LANPL shRNA (m) Lentiviral Particles: sc-75410-V.

Molecular Weight of LANPL: 34 kDa.

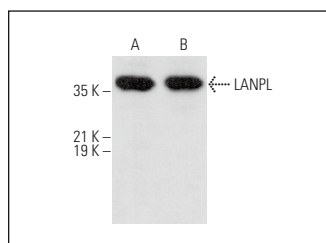
Molecular Weight of LANP Lmembrane bound: 74/76 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, rat liver extract: sc-2395 or human PBL whole cell lysate.

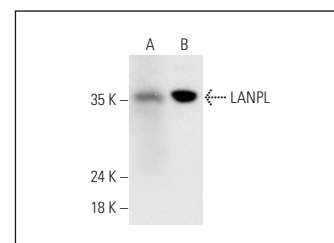
RECOMMENDED SUPPORT REAGENTS

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 L-Agarose: sc-2336 (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



LANPL (C-1): sc-514662. Western blot analysis of LANPL expression in Hep G2 whole cell lysate (A) and rat liver tissue extract (B).



LANPL (C-1): sc-514662. Western blot analysis of LANPL expression in human PBL (A) and Hep G2 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Chen, X., et al. 2022. Lockd promotes myoblast proliferation and muscle regeneration via binding with DHX36 to facilitate 5' UTR rG4 unwinding and Anp32e translation. *Cell Rep.* 39: 110927.

RESEARCH USE

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