

# Liprin $\beta$ 2 (N-20): sc-54838

## BACKGROUND

Liprins interact with members of the leukocyte common antigen-related (LAR) family of transmembrane protein tyrosine phosphatases, which are implicated in axon guidance and mammary gland development. Liprins are multivalent proteins that form complex structures and act as scaffolds for the recruitment and anchoring of LAR phosphatases. Based on sequence similarities and binding characteristics, liprins are subdivided into  $\alpha$ -type and  $\beta$ -type liprins. Both  $\alpha$ - and  $\beta$ -liprins homodimerize via their N-terminal, coiled coil regions. Liprin  $\beta$ 2 is expressed strongly in liver, kidney, intestine, heart, lung and testis, however it can be detected at low levels in brain and thymus. Four isoforms exist for Liprin  $\beta$ 2 due to splicing variants. Isoform 1 represents the full length protein. Isoform 2 lacks amino acids 459-469. Isoform 3 contains an alternative sequence for amino acids 127-200 and is truncated at amino acid 200. Isoform 4 lacks amino acids 459-469 and contains an alternative sequence for amino acids 877-882.

## REFERENCES

- Serra-Pagès, C., Medley, Q.G., Tang, M., Hart, A. and Streuli, M. 1998. Liprins, a family of LAR transmembrane protein-tyrosine phosphatase-interacting proteins. *J. Biol. Chem.* 273: 15611-15620.
- Kriajevska, M., Fischer-Larsen, M., Moertz, E., Vorm, O., Tulchinsky, E., Grigorian, M., Ambartsumian, N. and Lukanidin, E. 2002. Liprin  $\beta$ 1, a member of the family of LAR transmembrane tyrosine phosphatase-interacting proteins, is a new target for the metastasis-associated protein S100A4 (Mts1). *J. Biol. Chem.* 277: 5229-5235.
- Heidenblad, M., Jonson, T., Mahlamäki, E.H., Gorunova, L., Karhu, R., Johansson, B. and Höglund, M. 2002. Detailed genomic mapping and expression analyses of 12p amplifications in pancreatic carcinomas reveal a 3.5-Mb target region for amplification. *Genes Chromosomes Cancer* 34: 211-223.
- Katoh, M. and Katoh, M. 2003. Identification and characterization of human PPFIA4 gene in silico. *Int. J. Mol. Med.* 12: 1009-1014.

## CHROMOSOMAL LOCATION

Genetic locus: PPFIBP2 (human) mapping to 11p15.4; Ppifbp2 (mouse) mapping to 7 F3.

## SOURCE

Liprin  $\beta$ 2 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Liprin  $\beta$ 2 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-54838 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

Liprin  $\beta$ 2 (N-20) is recommended for detection of Liprin  $\beta$ 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Liprin  $\beta$ 2 (N-20) is also recommended for detection of Liprin  $\beta$ 2 in additional species, including equine and bovine.

Suitable for use as control antibody for Liprin  $\beta$ 2 siRNA (h): sc-62563, Liprin  $\beta$ 2 siRNA (m): sc-62564, Liprin  $\beta$ 2 shRNA Plasmid (h): sc-62563-SH, Liprin  $\beta$ 2 shRNA Plasmid (m): sc-62564-SH, Liprin  $\beta$ 2 shRNA (h) Lentiviral Particles: sc-62563-V and Liprin  $\beta$ 2 shRNA (m) Lentiviral Particles: sc-62564-V.

Molecular Weight of Liprin  $\beta$ 2 isoforms 1/2/3: 99/98/22 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, JAR cell lysate: sc-2276 or mouse brain extract: sc-2253.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.