

LNx1 (H-54): sc-134511

BACKGROUND

LNx1 (ligand of NUMB protein X1, LNx, PDZ domain-containing RING finger protein 2, PDZRN2) is a RING finger and PDZ domain containing protein that associates with NUMB, a phosphotyrosine-binding (PTB) domain-containing protein that functions as a cell fate determinant. Studies indicate that the protein contains an N-terminal PTB domain-binding motif and four PDZ domains. Northern blot analysis has detected the expression of LNx1 in heart, placenta, kidney, pancreas and brain tissues. By radiation hybrid mapping, the LNx gene was localized to human chromosome 4q12 between marker D4S1577 and marker D4S1594. Research suggests that the presence of multiple protein binding domains involved in signal transduction and association with NUMB and SKIP may suggest an important role for LNx in tumorigenesis.

REFERENCES

- Dho, S.E., et al. 1998. The mammalian NUMB phosphotyrosine-binding domain. Characterization of binding specificity and identification of a novel PDZ domain-containing numb binding protein, LNx. *J. Biol. Chem.* 273: 9179-9187.
- Dho, S.E., et al. 2000. Characterization of four mammalian NUMB protein isoforms. Identification of cytoplasmic and membrane-associated variants of the phosphotyrosine binding domain. *J. Biol. Chem.* 274: 33097-33104.
- Xie, Y., et al. 2001. Identification of a human LNx protein containing multiple PDZ domains. *Biochem. Genet.* 39: 117-126.
- Nie, J., et al. 2002. LNx functions as a RING type E3 ubiquitin ligase that targets the cell fate determinant NUMB for ubiquitin-dependent degradation. *EMBO J.* 21: 93-102.
- Rice, D.S., et al. 2002. The LNx family proteins function as molecular scaffolds for NUMB family proteins. *Mol. Cell. Neurosci.* 18: 525-40.
- Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 609732. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Armbruster, V., et al. 2004. Np9 protein of human endogenous retrovirus K interacts with ligand of NUMB protein X. *J. Virol.* 78: 10310-10319.
- Chen, J., et al. 2005. Characterization of human LNx, a novel ligand of NUMB protein X that is downregulated in human gliomas. *Int. J. Biochem. Cell Biol.* 37: 2273-2283.

CHROMOSOMAL LOCATION

Genetic locus: LNx1 (human) mapping to 4q12; Lnx1 (mouse) mapping to 5 C3.3.

SOURCE

LNx1 (H-54) is a rabbit polyclonal antibody raised against amino acids 257-310 mapping within an internal region of LNx1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

LNx1 (H-54) is recommended for detection of LNx1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

LNx1 (H-54) is also recommended for detection of LNx1 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for LNx1 siRNA (h): sc-60956, LNx1 siRNA (m): sc-60957, LNx1 shRNA Plasmid (h): sc-60956-SH, LNx1 shRNA Plasmid (m): sc-60957-SH, LNx1 shRNA (h) Lentiviral Particles: sc-60956-V and LNx1 shRNA (m) Lentiviral Particles: sc-60957-V.

Molecular Weight of LNx1: 81 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.