

LAMP-1 (N-19): sc-8099

BACKGROUND

Lysosome-associated membrane proteins (LAMP) are glycosylated type I membrane proteins that play a role in the biogenesis of the pigment melanin. LAMP-1 (also designated CD107a) and LAMP-2 (also designated CD107b) are involved in a variety of functions, including cellular adhesion, and are thought to participate in the process of tumor invasion and metastasis. Newly synthesized LAMP-1 and LAMP-2 proteins are sorted at the *trans*-Golgi network and are transported intracellularly via a pathway that is distinct from the Clathrin-coated vesicles used for the mannose-6 phosphate receptor. LAMP-1 is ex-pressed on the surface of Thrombin-activated but not resting platelets, and it is thought to be involved in the adhesive, prothrombic properties of these cells. Both LAMP-1 and LAMP-2 are involved in maintaining lysosome acidity and protecting the lysosomal membranes from autodigestion, and their expression is increased in patients with lysosomal storage disorders.

CHROMOSOMAL LOCATION

Genetic locus: LAMP1 (human) mapping to 13q34.

SOURCE

LAMP-1 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of LAMP-1 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.

Blocking peptide available for competition studies, sc-8099 P, (100 µg 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

LAMP-1 (N-19) is recommended for detection of LAMP-1 of 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), immunohistochemistry (including paraffin-embedded sections) (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 LAMP-1 siRNA (h): sc-29389, LAMP-1 shRNA Plasmid (h): sc-29389-SH and LAMP-1 shRNA (h) Lentiviral Particles: sc-29389-V.

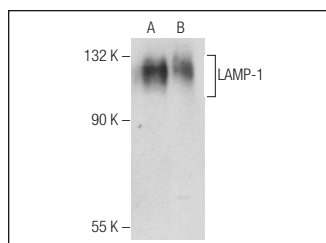
Molecular Weight of LAMP-1: 120 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, U-937 cell lysate: sc-2239 or HT-1080 whole cell lysate: sc-364183.

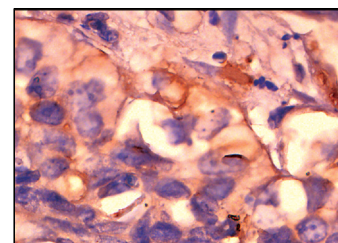
RESEARCH USE

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

DATA



LAMP-1 (N-19): sc-8099. Western blot analysis of LAMP-1 expression in HeLa (A) and HT-1080 (B) whole cell lysates.



LAMP-1 (N-19): sc-8099. Immunoperoxidase staining of formalin fixed, paraffin-embedded human breast tumor showing membrane and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Zhou, C., et al. 2001. ATP-binding cassette transporter ABC2/ABCA2 in the rat brain: A novel mammalian lysosome-associated membrane protein and a specific marker for oligodendrocytes but not for myelin sheaths. *J. Neurosci.* 21: 849-857.
2. Dusart, I., et al. 2006. Purkinje cell death: differences between developmental cell death and neurodegenerative death in mutant mice. *Cerebellum.* 5: 163-173.
3. Magy, N., et al. 2007. Cellular events associated with the initial phase of AA amyloidogenesis: insights from a human monocyte model. *Amyloid* 14: 51-63.
4. Mashimo, T., et al. 2009. Progressive Purkinje cell degeneration in tam-baleante mutant mice is a consequence of a missense mutation in HERC1 E3 ubiquitin ligase. *PLoS Genet.* 5: e1000784.

PROTOCOLS

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