

LAMP-1 (H-228): sc-5570

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 expressed 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; Lamp1 (mouse) mapping to 8 A1.1.

SOURCE

LAMP-1 (H-228) is a rabbit polyclonal antibody raised against amino acids 1-228 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.

APPLICATIONS

LAMP-1 (H-228) is recommended for detection of LAMP-1 of human and, to a lesser extent, mouse and rat 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 siRNA (m): sc-35790, LAMP-1 shRNA Plasmid (h): sc-29389-SH, LAMP-1 shRNA Plasmid (m): sc-35790-SH, LAMP-1 shRNA (h) Lentiviral Particles: sc-29389-V and LAMP-1 shRNA (m) Lentiviral Particles: sc-35790-V.

Molecular Weight of LAMP-1: 120 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, U-937 cell lysate: sc-2239 or Jurkat whole cell lysate: sc-2204.

STORAGE

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

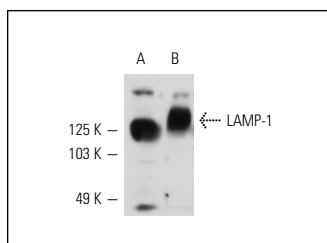
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

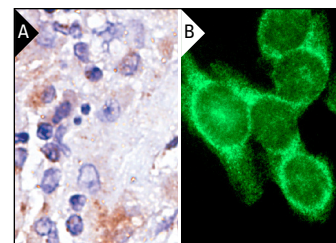
RESEARCH USE

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

DATA



LAMP-1 (H-228): sc-5570. Western blot analysis of LAMP-1 expression in HeLa (A) and U-937 (B) whole cell lysates.



LAMP-1 (H-228): sc-5570. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast tumor (A) and immunofluorescence staining of methanol-fixed HeLa cells (B) showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Jones, C., et al. 2003. Normal sorting but defective endocytosis of the low density lipoprotein receptor in mice with autosomal recessive hypercholesterolemia. *J. Biol. Chem.* 278: 29024-29030.
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- Nakamura, K., et al. 2003. Down-regulation of melanin synthesis by a biphenyl derivative and its mechanism. *Pigment Cell Res.* 16: 494-500.
- Biragyn, A., et al. 2007. Tumor-associated embryonic antigen-expressing vaccines that target CCR6 elicit potent CD8⁺ T cell-mediated protective and therapeutic antitumor immunity. *J. Immunol.* 179: 1381-1388.
- Calistri, A., et al. 2007. Intracellular trafficking and maturation of herpes simplex virus type 1 γ B and virus egress require functional biogenesis of multivesicular bodies. *J. Virol.* 81: 11468-11478.
- Singhatanadgit, W., et al. 2008. Changes in bone morphogenetic protein receptor-1B localisation regulate osteogenic responses of human bone cells to bone morphogenetic protein-2. *Int. J. Biochem. Cell Biol.* 40: 2854-2864.
- Gardner, L.A., et al. 2011. Rab11a and its binding partners regulate the recycling of the β_1 -adrenergic receptor. *Cell. Signal.* 23: 46-57.
- Delputte, P.L., et al. 2011. Porcine sialoadhesin (CD169/Siglec-1) is an endocytic receptor that allows targeted delivery of toxins and antigens to macrophages. *PLoS ONE* 6: e16827.



Try **LAMP-1 (H4A3): sc-20011** or **LAMP-1 (E-5): sc-17768**, our highly recommended monoclonal alternatives to LAMP-1 (H-228). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **LAMP-1 (H4A3): sc-20011**.