

LAMP-2 (H-207): sc-5571

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: LAMP2 (human) mapping to Xq24; Lamp2 (mouse) mapping to X A3.3.

SOURCE

LAMP-2 (H-207) is a rabbit polyclonal antibody raised against amino acids 1-207 of LAMP-2 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-2 (H-207) is recommended for detection of LAMP-2 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-2 siRNA (h): sc-29390, LAMP-2 siRNA (m): sc-35791, LAMP-2 shRNA Plasmid (h): sc-29390-SH, LAMP-2 shRNA Plasmid (m): sc-35791-SH, LAMP-2 shRNA (h) Lentiviral Particles: sc-29390-V and LAMP-2 shRNA (m) Lentiviral Particles: sc-35791-V.

Molecular Weight of LAMP-2: 120 kDa.

Positive Controls: Y79 cell lysate: sc-2240, HeLa whole cell lysate: sc-2200 or JAR cell lysate: sc-2276.

RESEARCH USE

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

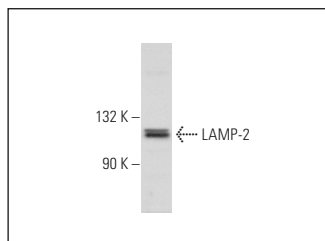
PROTOCOLS

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

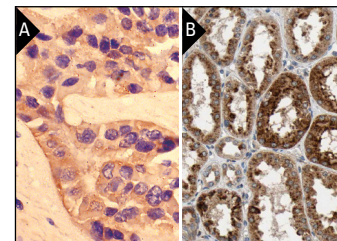
STORAGE

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

DATA



LAMP-2 (H-207): sc-5571. Western blot analysis of LAMP-2 expression in Y79 whole cell lysate.



LAMP-2 (H-207): sc-5571. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney carcinoma showing membrane and cytoplasmic localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human kidney tissue showing cyto-plasmic and membrane staining of cells in glomeruli and tubuli. Kindly provided by The Swedish Human Protein Atlas (HPA) program (B).

SELECT PRODUCT CITATIONS

- Wyroba, E., et al. 2007. Phagosome maturation in unicellular eukaryote *Paramecium*: the presence of RILP, Rab7 and LAMP-2 homologues. *Eur. J. Histochem.* 51: 163-172.
- Koguchi, Y., et al. 2007. Preformed CD40 ligand exists in secretory lysosomes in effector and memory CD4⁺ T cells and is quickly expressed on the cell surface in an antigen-specific manner. *Blood* 110: 2520-2527.
- Vingtdeux, V., et al. 2007. Alkalinizing drugs induce accumulation of amyloid precursor protein by-products in luminal vesicles of multivesicular bodies. *J. Biol. Chem.* 282: 18197-18205.
- Huang, J., et al. 2012. Age-related decrease of the LAMP-2 gene expression in human leukocytes. *Clin. Biochem.* 45: 1229-1232.
- Eid, N., et al. 2012. Enhanced mitophagy in Sertoli cells of ethanol-treated rats: morphological evidence and clinical relevance. *J. Mol. Histol.* 43: 71-80.
- Antequera, D., et al. 2012. Effects of a tacrine-8-hydroxyquinoline hybrid (IQM-622) on Aβ accumulation and cell death: involvement in hippocampal neuronal loss in Alzheimer's disease. *Neurobiol. Dis.* 46: 682-691.
- Singh, K., et al. 2012. Autophagy-dependent senescence in response to DNA damage and chronic apoptotic stress. *Autophagy* 8: 236-251.
- Perez-Gonzalez, R., et al. 2013. Phosphodiesterase 7 inhibitor reduced cognitive impairment and pathological hallmarks in a mouse model of Alzheimer's disease. *Neurobiol. Aging* 34: 2133-2145.
- Ambrosi, G., et al. 2014. Bioenergetic and proteolytic defects in fibroblasts from patients with sporadic Parkinson's disease. *Biochim. Biophys. Acta* 1842: 1385-1394.
- Ahuja, S., et al. 2015. MAP1LC3B overexpression protects against Hermansky-Pudlak syndrome type-1 induced defective autophagy *in vitro*. *Am. J. Physiol. Lung Cell. Mol. Physiol.* E-published.