

LAMP-2 (6A430): sc-71492

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.

CHROMSOMAL LOCATION

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

SOURCE

LAMP-2 (6A430) is a rat monoclonal antibody epitope mapping to immunoadsorbent purified mouse macrophage glycoprotein fraction.

PRODUCT

Each vial contains 200 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

LAMP-2 (6A430) is available conjugated to either phycoerythrin (sc-71492 PE), fluorescein (sc-71492 FITC) or Alexa Fluor[®] 488 (sc-71492 AF488) or Alexa Fluor[®] 647 (sc-71492 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

APPLICATIONS

LAMP-2 (6A430) is recommended for detection of LAMP-2 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells).

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: J774.A1 cell lysate: sc-3802, WEHI-231 whole cell lysate: sc-2213 or RAW 264.7 whole cell lysate: sc-2211.

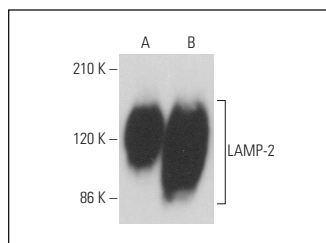
STORAGE

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

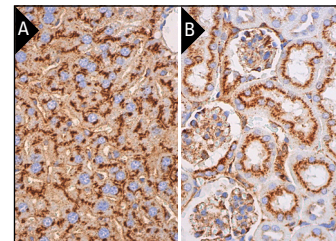
RESEARCH USE

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

DATA



LAMP-2 (6A430): sc-71492. Western blot analysis of LAMP-2 expression in J774.A1 (A) and WEHI-231 (B) whole cell lysates.



LAMP-2 (6A430): sc-71492. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse liver tissue showing membrane and cytoplasmic staining of hepatocytes (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse kidney tissue showing cytoplasmic staining of cells in glomeruli and apical membrane staining of cells in tubules (B).

SELECTPRODUCT CITATIONS

- Haspel, J., et al. 2011. Characterization of macroautophagic flux *in vivo* using a leupeptin-based assay. *Autophagy* 7: 629-642.
- Reibring, C.G., et al. 2014. Expression patterns and subcellular localization of carbonic anhydrases are developmentally regulated during tooth formation. *PLoS ONE* 9: e96007.
- Zuo, Z., et al. 2019. CD47 deficiency attenuates isoproterenol-induced cardiac remodeling in mice. *Oxid. Med. Cell. Longev.* 2019: 7121763.
- Chen, S., et al. 2019. 27-hydroxycholesterol contributes to lysosomal membrane permeabilization-mediated pyroptosis in co-cultured SH-SY5Y cells and C6 cells. *Front. Mol. Neurosci.* 12: 14.
- Li, Y., et al. 2019. CD47 deficiency protects cardiomyocytes against hypoxia/reoxygenation injury by rescuing autophagic clearance. *Mol. Med. Rep.* 19: 5453-5463.
- Li, Y., et al. 2020. CD47 antibody suppresses isoproterenol-induced cardiac hypertrophy through activation of autophagy. *Am. J. Transl. Res.* 12: 5908-5923.
- Najafov, A., et al. 2021. RIPK1 promotes energy sensing by the mTORC1 pathway. *Mol. Cell* 81: 370-385.e7.
- Seike, T., et al. 2022. Hydroxynonenal causes hepatocyte death by disrupting lysosomal integrity in non-alcoholic steatohepatitis. *Cell. Mol. Gastroenterol. Hepatol.* 14: 925-944.

PROTOCOLS

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

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