

LAMP-2 (H4B4): sc-18822

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.

SOURCE

LAMP-2 (H4B4) is a mouse monoclonal antibody raised against adherent spleen cells of human origin.

PRODUCT

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

LAMP-2 (H4B4) is available conjugated to agarose (sc-18822 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-18822 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-18822 PE), fluorescein (sc-18822 FITC), Alexa Fluor[®] 488 (sc-18822 AF488), Alexa Fluor[®] 546 (sc-18822 AF546), Alexa Fluor[®] 594 (sc-18822 AF594) or Alexa Fluor[®] 647 (sc-18822 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-18822 AF680) or Alexa Fluor[®] 790 (sc-18822 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

In addition, LAMP-2 (H4B4) is available conjugated to Alexa Fluor[®] 405 (sc-18822 AF405), 100 µg/2 ml, for IF, IHC(P) and FCM.

APPLICATIONS

LAMP-2 (H4B4) is recommended for detection of LAMP-2 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 flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for LAMP-2 siRNA (h): sc-29390, LAMP-2 shRNA Plasmid (h): sc-29390-SH and LAMP-2 shRNA (h) Lentiviral Particles: sc-29390-V.

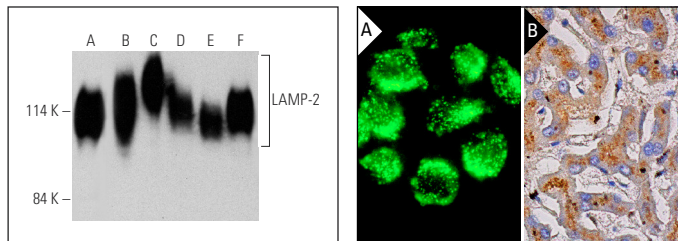
Molecular Weight of LAMP-2: 120 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or Ramos cell lysate: sc-2216.

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 (H4B4) HRP: sc-18822 HRP. Direct western blot analysis of LAMP-2 expression in HeLa (A), ECV304 (B), U-937 (C), Jurkat (D), Ramos (E) and HUVEC-C (F) whole cell lysates.

LAMP-2 (H4B4): sc-18822. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane staining (A). LAMP-2 (H4B4) HRP: sc-18822 HRP. Direct immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes (B).

SELECT PRODUCT CITATIONS

- Clayton, A., et al. 2005. Induction of heat shock proteins in B cell exosomes. *J. Cell Sci.* 118: 3631-3638.
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- Mencarelli S., et al. 2005. Identification of plasma membrane associated mature β-hexosaminidase A, active towards GM2 ganglioside, in human fibroblasts. *FEBS Lett.* 579: 5501-5506.
- Allavena, G., et al. 2018. Suppressed translation as a mechanism of initiation of CASP8 (caspase 8)-dependent apoptosis in autophagy-deficient NSCLC cells under nutrient limitation. *Autophagy* 14: 252-268.
- Yamano, K., et al. 2018. Endosomal Rab cycles regulate Parkin-mediated mitophagy. *Elife* 7 pii: e31326.
- Zhang, J., et al. 2018. Lysosomal deposition of copper oxide nanoparticles triggers HUVEC cells death. *Biomaterials* 161: 228-239.
- Ouchida, A.T., et al. 2018. Synergistic effect of a novel autophagy inhibitor and quizartinib enhances cancer cell death. *Cell Death Dis.* 9: 138.
- Hsu, C.L., et al. 2018. MAP4K3 mediates amino acid-dependent regulation of autophagy via phosphorylation of TFEB. *Nat. Commun.* 9: 942.
- Fu, R., et al. 2018. A novel autophagy inhibitor berbamine blocks SNARE-mediated autophagosome-lysosome fusion through upregulation of BNIP3. *Cell Death Dis.* 9: 243.
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RESEARCH USE

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

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