

LAMP-2 Antibody

LAMP-2: Lysosome associated membrane protein 2

CATALOG NO.: 3627

BACKGROUND:

Autophagy, the process of bulk degradation of cellular proteins through an autophagosomic-lysosomal pathway is important for normal growth control and may be defective in tumor cells. It is involved in the preservation of cellular nutrients under starvation conditions as well as the normal turnover of cytosolic components (1,2) and is negatively regulated by TOR (Target of rapamycin) (3). LAMP-2, a highly glycosylated protein associated with the lysosome (4), has recently been shown to be important in autophagy as mice deficient in this protein failed to convert autophagic vacuoles into vacuoles (5) leading to impaired degradation of long-lived proteins. This correlates with the finding that human LAMP-2 deficiency causing Danon's disease is associated with the accumulation of autophagic material in striated myocytes (6). LAMP-2 exists in multiple isoforms (7).

SOURCE:

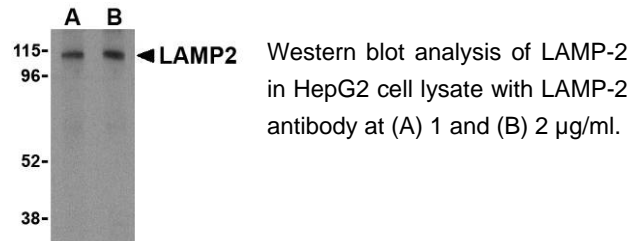
Rabbit polyclonal LAMP-2 antibody was raised against a 17 amino acid peptide from near the carboxy terminus of human LAMP-2 (Genbank accession No. NP_054701).

STORAGE:

LAMP-2 antibody is supplied as immunoaffinity purified IgG in PBS containing 0.02% sodium azide. Store at 4°C, stable for one year.

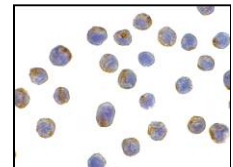
APPLICATION:

LAMP-2 antibody can be used for the detection of LAMP-2 by Western blot at 1 – 2 µg/ml. (Optimal dilution should be determined by user). HepG2 cell lysate can be used as positive control. Despite its predicted size, LAMP-2 migrates at 115kDa in SDS-PAGE. LAMP-2 antibody is human and mouse reactive. **This product is for research use only.**



Western blot analysis of LAMP-2 in HepG2 cell lysate with LAMP-2 antibody at (A) 1 and (B) 2 µg/ml.

Immunocytochemistry of LAMP-2 in HepG2 cells with LAMP-2 antibody at 10 µg/ml.



RELATED PRODUCTS:

Blocking peptide, Catalog No. **3627P**.

HepG2 Cell Lysate, Catalog No. **1216**.

LAMP-1 Antibody, Catalog No. **3629**.

TOR Antibody, Catalog No. **3485**.

REFERENCES:

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4. Granger BL, Green SA, Gabel CA, et al. Characterization and cloning of the Igp110, a lysosomal glycoprotein from mouse and rat cells. *J. Biol. Chem.* 1990; 265:12036-43.
5. Tanaka Y, Guhde G, Suter A, et al. Accumulation of autophagic vacuoles and cardiopathy in LAMP-2-deficient mice. *Nature* 2000; 902-6.
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7. Gough NR, Hatem CL, and Fambrough DM. The family of LAMP-2 proteins arises by alternative splicing from a single gene: characterization of the avian LAMP-2 gene and identification of mammalian homologs of LAMP-2b and LAMP-2c. *DNA Cell Biol.* 1995; 14:863-7. (07-01D)