

# Anti-LAMP1 Antibody

Catalog # ABO11130

## Product Information

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|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| <b>Application</b>       | WB                                                                                                                                  |
| <b>Primary Accession</b> | <a href="#">P11279</a>                                                                                                              |
| <b>Host</b>              | Rabbit                                                                                                                              |
| <b>Reactivity</b>        | Human, Mouse, Rat                                                                                                                   |
| <b>Clonality</b>         | Polyclonal                                                                                                                          |
| <b>Format</b>            | Lyophilized                                                                                                                         |
| <b>Description</b>       | Rabbit IgG polyclonal antibody for Lysosome-associated membrane glycoprotein 1(LAMP1) detection. Tested with WB in Human;Mouse;Rat. |
| <b>Reconstitution</b>    | Add 0.2ml of distilled water will yield a concentration of 500ug/ml.                                                                |

## Additional Information

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| <b>Gene ID</b>                  | 3916                                                                                                                                                                                                                                                                                                           |
| <b>Other Names</b>              | Lysosome-associated membrane glycoprotein 1, LAMP-1, Lysosome-associated membrane protein 1, CD107 antigen-like family member A, CD107a, LAMP1                                                                                                                                                                 |
| <b>Calculated MW</b>            | 44882                                                                                                                                                                                                                                                                                                          |
| <b>Application Details</b>      | Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse                                                                                                                                                                                                                                                                 |
| <b>Subcellular Localization</b> | Cell membrane; Single-pass type I membrane protein. Endosome membrane; Single-pass type I membrane protein. Lysosome membrane; Single-pass type I membrane protein. Late endosome. This protein shuttles between lysosomes, endosomes, and the plasma membrane. Colocalizes with OSBPL1A at the late endosome. |
| <b>Source</b>                   | Eukaryota                                                                                                                                                                                                                                                                                                      |
| <b>Protein Name</b>             | Lysosome-associated membrane glycoprotein 1(LAMP-1)                                                                                                                                                                                                                                                            |
| <b>Contents</b>                 | Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05mg Thimerosal, 0.05mg NaN <sub>3</sub> .                                                                                                                                                                                  |
| <b>Immunogen</b>                | A synthetic peptide corresponding to a sequence at the C-terminus of human LAMP1(403-417aa YLVGRKRSHAGYQTI), different from the related mouse and rat sequences by one amino acid.                                                                                                                             |
| <b>Purification</b>             | Immunogen affinity purified.                                                                                                                                                                                                                                                                                   |
| <b>Cross Reactivity</b>         | No cross reactivity with other proteins                                                                                                                                                                                                                                                                        |

**Storage** At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

## Protein Information

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| <b>Name</b>              | LAMP1 {ECO:0000303   PubMed:23632890, ECO:0000312   HGNC:HGNC:6499}                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Function</b>          | Lysosomal membrane glycoprotein which plays an important role in lysosome biogenesis, lysosomal pH regulation, autophagy and cholesterol homeostasis (PubMed: <a href="#">37390818</a> ). Acts as an important regulator of lysosomal lumen pH regulation by acting as a direct inhibitor of the proton channel TMEM175, facilitating lysosomal acidification for optimal hydrolase activity (PubMed: <a href="#">37390818</a> ). Also plays an important role in NK-cells cytotoxicity (PubMed: <a href="#">2022921</a> , PubMed: <a href="#">23632890</a> ). Mechanistically, participates in cytotoxic granule movement to the cell surface and perforin trafficking to the lytic granule (PubMed: <a href="#">23632890</a> ). In addition, protects NK-cells from degranulation-associated damage induced by their own cytotoxic granule content (PubMed: <a href="#">23847195</a> ). Presents carbohydrate ligands to selectins (PubMed: <a href="#">7685349</a> ). |
| <b>Cellular Location</b> | Lysosome membrane; Single-pass type I membrane protein. Endosome membrane; Single-pass type I membrane protein. Late endosome membrane; Single-pass type I membrane protein. Cell membrane; Single-pass type I membrane protein. Cytolytic granule membrane; Single-pass type I membrane protein. Note=This protein shuttles between lysosomes, endosomes, and the plasma membrane (By similarity). Colocalizes with OSBPL1A at the late endosome (PubMed:16176980). {ECO:0000250   UniProtKB:P05300, ECO:0000269   PubMed:16176980, ECO:0000269   PubMed:17897319}                                                                                                                                                                                                                                                                                                                                                                                                      |

## Background

LAMP1 (lysosomal-associated membrane protein 1) also called LAMPA, LGP120 or CD107A, is a member of a family of membrane glycoproteins. This glycoprotein provides selectins with carbohydrate ligands. It may also play a role in tumor cell metastasis. CD107a has also been shown to be a marker of degranulation on lymphocytes such as CD8+ and NK cells. By means of in situ hybridization, Mattei et al. (1990) assigned the LAMP1 gene to chromosome 13q34. A related gene, which may be a pseudogene, mapped to chromosome 12p13.3. Hybridization of LAMP1 cDNA to chromosome 12p13.3 was observed even when probes representing different portions of the LAMP1 cDNA were used.

## Images



Anti- LAMP1 antibody, ABO11130, Western blotting  
 All lanes: Anti LAMP1 (ABO11130) at 0.5ug/ml  
 Lane 1: Rat Testis Tissue Lysate at 50ug  
 Lane 2: A549 Whole Cell Lysate at 40ug  
 Predicted bind size: 45KD  
 Observed bind size: 80KD

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.