

# **Anti-LAMP1 Antibody**

**Catalog # ABO11130** 

### **Specification**

# **Anti-LAMP1 Antibody - Product Information**

Application WB
Primary Accession P11279
Host Rabbit

Reactivity Human, Mouse, Rat

Clonality Polyclonal Lyophilized

**Description** 

Rabbit IgG polyclonal antibody for Lysosome-associated membrane glycoprotein 1(LAMP1) detection. Tested with WB in Human; Mouse; Rat.

#### Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

### **Anti-LAMP1 Antibody - Additional Information**

**Gene ID 3916** 

#### **Other Names**

Lysosome-associated membrane glycoprotein 1, LAMP-1, Lysosome-associated membrane protein 1, CD107 antigen-like family member A, CD107a, LAMP1

### Calculated MW 44882 MW KDa

## **Application Details**

Western blot, 0.1-0.5 μg/ml, Human, Rat, Mouse<br>

### **Subcellular Localization**

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.

### **Protein Name**

Lysosome-associated membrane glycoprotein 1(LAMP-1)

#### Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

## Immunogen

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.

### **Purification**



Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After r°Constitution, 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.

# **Anti-LAMP1 Antibody - Protein Information**

Name LAMP1 {ECO:0000303|PubMed:23632890, ECO:0000312|HGNC:HGNC:6499}

### **Function**

Lysosomal membrane glycoprotein which plays an important role in lysosome biogenesis, lysosomal pH regulation, autophagy and cholesterol homeostasis (PubMed:<a href="http://www.uniprot.org/citations/37390818" target="\_blank">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="http://www.uniprot.org/citations/37390818" target="\_blank">37390818</a>). Also plays an important role in NK-cells cytotoxicity (PubMed:<a href="http://www.uniprot.org/citations/2022921" target="\_blank">2022921</a>/a>, PubMed:<a href="http://www.uniprot.org/citations/23632890" target="\_blank">23632890</a>). Mechanistically, participates in cytotoxic granule movement to the cell surface and perforin trafficking to the lytic granule (PubMed:<a href="http://www.uniprot.org/citations/23632890"

damage induced by their own cytotoxic granule content (PubMed:<a href="http://www.uniprot.org/citations/23847195" target="\_blank">23847195</a>). Presents carbohydrate ligands to selectins (PubMed:<a href="http://www.uniprot.org/citations/7685349" target=" blank">7685349</a>).

target=" blank">23632890</a>). In addition, protects NK-cells from degranulation-associated

## **Cellular Location**

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}

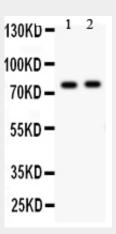
# **Anti-LAMP1 Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture



# Anti-LAMP1 Antibody - Images



Anti- LAMP1antibody, ABO11130, Western blottingAll lanes: Anti LAMP1 (ABO11130) at 0.5ug/mlLane 1: Rat Testis Tissue Lysate at 50ugLane 2: A549 Whole Cell Lysate at 40ugPredicted bind size: 45KDObserved bind size: 80KD

# Anti-LAMP1 Antibody - 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 LAMP1Â cDNA were used.