

**LAMP2 Antibody**  
**Rabbit Polyclonal Antibody**  
**Catalog # ABV10697****Specification**

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**LAMP2 Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P17047</a>
Other Accession	<a href="#">BAC33265</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	45681

**LAMP2 Antibody - Additional Information****Gene ID** 16784

Application & Usage	Western blotting (0.5-4 µg/ml). However, the optimal conditions should be determined individually. The antibody recognizes ~45 kDa unglycosylated and a >120kDa glycosylated LAMP2 in samples from human, mouse and rat origins. Reactivity to other species has not been tested.
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**Other Names**

Lysosomal-associated membrane protein 2, CD107B , Cluster of Differentiation 107B, LAMP2, LAMP-2, LAMP 2

**Target/Specificity**

LAMP2

**Antibody Form**

Liquid

**Appearance**

Colorless liquid

**Formulation**

100 µg (0.5 mg/ml) affinity purified rabbit polyclonal antibody in phosphate-buffered saline (PBS), pH 7.2, containing 30% glycerol, 0.5% BSA, and 0.01% thimerosal.

**Handling**

The antibody solution should be gently mixed before use.

**Reconstitution & Storage**

-20 °C

## Background Descriptions

### Precautions

LAMP2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## LAMP2 Antibody - Protein Information

**Name** Lamp2

**Synonyms** Lamp-2

### Function

Lysosomal membrane glycoprotein which plays an important role in lysosome biogenesis, lysosomal pH regulation and autophagy (PubMed:<a href="http://www.uniprot.org/citations/10972293" target="\_blank">10972293</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 (By similarity). Plays an important role in chaperone-mediated autophagy, a process that mediates lysosomal degradation of proteins in response to various stresses and as part of the normal turnover of proteins with a long biological half-life (By similarity). Functions by binding target proteins, such as GAPDH, NLRP3 and MLLT11, and targeting them for lysosomal degradation (By similarity). In the chaperone-mediated autophagy, acts downstream of chaperones, such as HSPA8/HSC70, which recognize and bind substrate proteins and mediate their recruitment to lysosomes, where target proteins bind LAMP2 (By similarity). Plays a role in lysosomal protein degradation in response to starvation (PubMed:<a href="http://www.uniprot.org/citations/27628032" target="\_blank">27628032</a>). Required for the fusion of autophagosomes with lysosomes during autophagy (PubMed:<a href="http://www.uniprot.org/citations/27628032" target="\_blank">27628032</a>). Cells that lack LAMP2 express normal levels of VAMP8, but fail to accumulate STX17 on autophagosomes, which is the most likely explanation for the lack of fusion between autophagosomes and lysosomes (PubMed:<a href="http://www.uniprot.org/citations/27628032" target="\_blank">27628032</a>). Required for normal degradation of the contents of autophagosomes (PubMed:<a href="http://www.uniprot.org/citations/10972293" target="\_blank">10972293</a>, PubMed:<a href="http://www.uniprot.org/citations/12221139" target="\_blank">12221139</a>). Required for efficient MHC class II-mediated presentation of exogenous antigens via its function in lysosomal protein degradation; antigenic peptides generated by proteases in the endosomal/lysosomal compartment are captured by nascent MHC II subunits (By similarity). Is not required for efficient MHC class II-mediated presentation of endogenous antigens (By similarity).

### Cellular Location

Lysosome membrane; Single-pass type I membrane protein {ECO:0000255|PROSITE-ProRule:PRU00740}. Endosome membrane {ECO:0000250|UniProtKB:P13473}; Single-pass type I membrane protein {ECO:0000255|PROSITE-ProRule:PRU00740}. Cytoplasmic vesicle, autophagosome membrane. Cell membrane {ECO:0000250|UniProtKB:P13473}; Single-pass type I membrane protein {ECO:0000255|PROSITE-ProRule:PRU00740}. Note=This protein shuttles between lysosomes, endosomes, and the plasma membrane {ECO:0000250|UniProtKB:P13473}

### Tissue Location

Detected in liver and kidney (at protein level). Detected in liver and kidney.

## LAMP2 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 Cytometry](#)
- [Cell Culture](#)

#### **LAMP2 Antibody - Images**

#### **LAMP2 Antibody - Background**

Lysosomal-associated membrane protein 2 (LAMP2) also known as CD107B (Cluster of Differentiation 107B) is a membrane glycoprotein. LAMP2 plays an important role in the normal function of lysosome which includes protecting lysosomal membrane from autodigestion, maintaining lysosome acidity, and lysosome cellular adhesion.