

**LAMP2 Blocking Peptide**  
**Catalog # PBV10425b****Specification**

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**LAMP2 Blocking Peptide - Product Information**

Primary Accession	<a href="#">P17047</a>
Other Accession	<a href="#">BAC33265</a>
Gene ID	<b>16784</b>
Calculated MW	<b>45681</b>

**LAMP2 Blocking Peptide - Additional Information****Gene ID** 16784**Application & Usage**

The peptide is used for blocking the antibody activity of LAMP2. It usually blocks the antibody activity completely in Western blot analysis by incubating the peptide with equal volume of antibody for 30-60 minutes at 37°C.

**Other Names**

Lysosome-associated membrane glycoprotein 2, LAMP-2, Lysosome-associated membrane protein 2, CD107 antigen-like family member B, Lysosomal membrane glycoprotein type B, LGP-B, CD107b, Lamp2, Lamp-2

**Target/Specificity**

LAMP2

**Formulation**

50 µg (0.5 mg/ml) in phosphate buffered saline (PBS), pH 7.2, containing 50% glycerol, 1% BSA and 0.02% thimerosal.

**Reconstitution & Storage**

-20 °C

**Background Descriptions****Precautions**

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

**LAMP2 Blocking Peptide - 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:0000255|UniProtKB:P13473}; Single-pass type I membrane protein {ECO:0000255|PROSITE-ProRule:PRU00740}. Cytoplasmic vesicle, autophagosome membrane. Cell membrane {ECO:0000255|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:0000255|UniProtKB:P13473}

## Tissue Location

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

## LAMP2 Blocking Peptide - 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 Blocking Peptide - Images