

**LAMP-1 Antibody (Center)**  
**Purified Rabbit Polyclonal Antibody**  
**Catalog # ABV11572****Specification**

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**LAMP-1 Antibody (Center) - Product Information**

Application	WB, IF
Primary Accession	<a href="#">P11279</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	44882

**LAMP-1 Antibody (Center) - Additional Information****Gene ID** 3916**Other Names**

LAMP-1, Lysosome associated membrane protein 1

**Target/Specificity**

LAMP-1

**Formulation**

100 µg (1 mg/ml) in 1X PBS containing 0.02% sodium azide.

**Handling**

The antibody solution should be gently mixed before use.

**Background Descriptions****Precautions**

LAMP-1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

**LAMP-1 Antibody (Center) - 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>, 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" target="\_blank">23632890</a>). In addition, protects NK-cells from degranulation-associated 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>).

#### Cellular Location

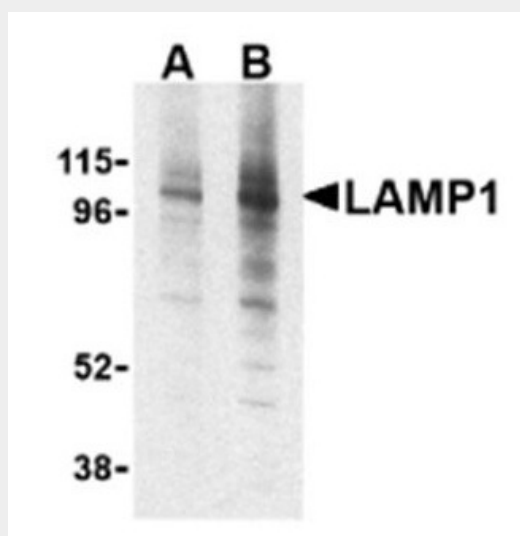
Lysosome membrane; Single-pass type I membrane protein. Endosome membrane; Single-pass type I membrane protein. Late endosome membrane; Single-pass type I membrane protein. Cell membrane; Single-pass type I membrane protein. Cytolytic granule membrane; Single-pass type I membrane protein. Note=This protein 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}

#### LAMP-1 Antibody (Center) - Protocols

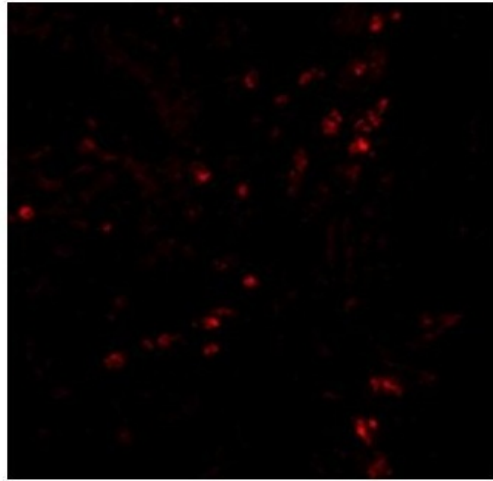
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### LAMP-1 Antibody (Center) - Images



Western blot analysis of LAMP-1 in EL4 cell lysate with LAMP-1 antibody at A(1µg/ml) and B(2µg/ml).



Immunofluorescence of LAMP-1 in human colon tissue with LAMP-1 antibody at 20ug/ml.

#### **LAMP-1 Antibody (Center) - Background**

Autophagy, the process of bulk degradation of cellular proteins through an autophagosomal-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 and is negatively regulated by TOR (Target of rapamycin). A protein recently found to be involved in autophagy, LAMP-2, is a highly glycosylated protein associated with the lysosome. LAMP-1 shares much homology to LAMP-2 and is thought to have overlapping functions. Mice lacking LAMP-1 had very minor defects compared to those deficient in LAMP-2 expression. However, the loss of both proteins resulted in embryonic lethality, suggesting that each protein possesses some unique and necessary functions.