

Anti-LAMP-1 Antibody

Catalog Number: A00780

About LAMP1

Autophagy, the process of bulk degradation of cellular proteins through an autophagosomic-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.

Overview

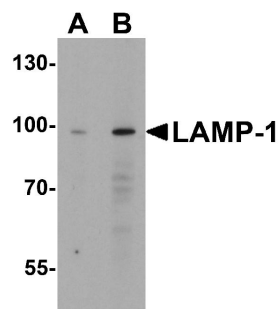
Product Name	Anti-LAMP-1 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-LAMP-1 Antibody (Catalog # A00780). Tested in ELISA, WB, IHC-P, IF applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, IF, IHC-P, WB
Clonality	Polyclonal
Formulation	LAMP-1 Antibody is supplied in PBS containing 0.02% sodium azide.
Storage Instructions	LAMP-1 antibody can be stored at 4°C up to one year. Antibodies should not be exposed to prolonged high temperatures.
Host	Rabbit
Uniprot ID	P11279

Technical Details

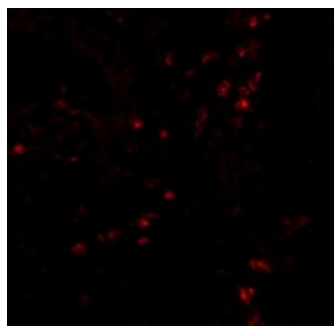
Immunogen	LAMP-1 antibody was raised against a 15 amino acid synthetic peptide from near the center of human LAMP-1. The immunogen is located within amino acids 230 - 280 of LAMP-1.
Predicted Reactive Species	Chicken, Goat, Pig
Cross Reactivity	LAMP-1 antibody is predicted to not cross-react with LAMP-2. Due to extensive post-translational modification, LAMP-1 often migrates at higher than predicted molecular weight in SDS-PAGE.
Isotype	IgG
Form	Liquid
Concentration	1 mg/mL

Purification	LAMP-1 Antibody is affinity chromatography purified via peptide column.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: LAMP-1 antibody can be used for the detection of LAMP-1 by Western blot at 1 - 2 ug/mL. Antibody can also be used for immunohistochemistry starting at 2.5 ug/mL. For immunofluorescence start at 20 ug/mL. Antibody validated: Western Blot in mouse samples; Immunohistochemistry in rat samples and Immunofluorescence in human and rat samples. All other applications and species not yet tested. Optimal dilutions for each application should be determined by the researcher.

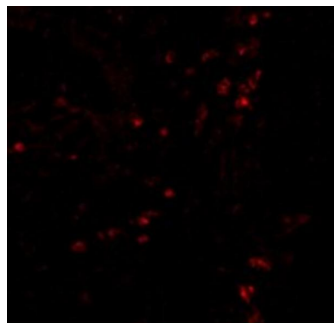
Anti-LAMP-1 Antibody (A00780) Images



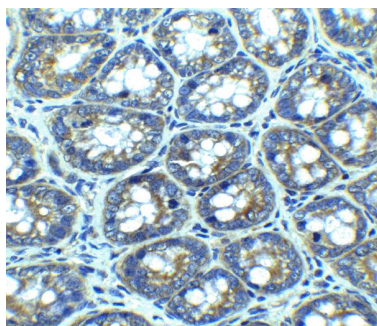
Western blot analysis of LAMP-1 in EL4 cell lysate with LAMP-1 antibody at (A) 1 and (B) 2 ug/mL.



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

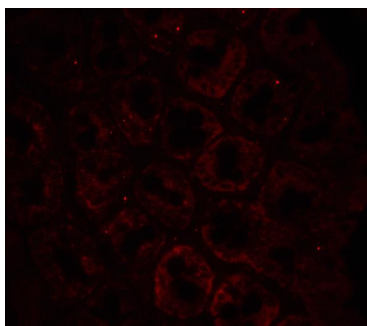


Immunofluorescence of LAMP-1 in Human Colon cells with LAMP-1 antibody at 20 ug/mL.



Immunohistochemistry of LAMP-1 in rat colon tissue with LAMP-1 antibody at 2.5 ug/ml.

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



1 Publications Citing This Product

1. PubMed ID: 33203874, Ma WQ, Sun XJ, Zhu Y, Liu NF. PDK4 promotes vascular calcification by interfering with autophagic activity and metabolic reprogramming. Cell Death Dis. 2020 Nov 17;11(11):991. doi:10.1038/s41419-020-03162-w. PMID:33203874; PMCID:PMC7673024.

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