Product Datasheet

LAMP2 Antibody (FITC) (orb147246)

Catalog Number	orb147246
Category	Antibodies
Description	Rat monoclonal to LAMP2 (FITC). Lysosme associated membrane proteins, or LAMP1 and LAMP2, are major constituents of the lysosomal membrane. The two have closely related structures, with 37% sequence homology. They are both transmembrane glycoproteins that are localized primarily in lysosomes and late endosomes. Newly synthesized molecules are mostly transported from the trans-Golgi network directly to endosomes and then to lysosomes. A second pathway involves the lamps being delivered from the Golgi to the cell surface, and then along the endocytic pathway to the lysosomes. A minor pathway involves transport via the plasma membrane. LAMP2 has also been detected at the plasma membrane of cells, as well as in cells that secrete lysosomal hydrolases. A study in the developmental expresses patterns of membrane LAMP2 transcripts indicate a possible involvement of this protein in cell-cell or cell-extracellular matrix interaction, and appear to reflect tissue and cell type specific roles of lysosomes during morphogenesis. Upon stimulation, a rapid translocation of intracellular LAMPs to the cell membrane is dependent on a carboxyl-terminal tyrosine based motif (YXXI). This stimulation has also been shown to have an associated release of histamine, leukotriene C 9$) and prostaglandin D 9@), which shows that LAMP1 and LAMP2 are activation markers for normal mast cells. They have also been linked to the inflammatory response in that they promote adhesion of human peripheral blood mononuclear cells (PBMC) to vascular endothelium, and therefore possibly the adhesion of PBMC to the site of inflammation. LAMP2 has also been shown to be critical for autophagy, in conversion of early autophagic vacuoles to vacuoles which rapidly degrade their content.
Target	LAMP2
Clonality	Monoclonal
Species/Host	Rat

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Isotype	IgG1
Conjugation	FITC
Reactivity	Human, Mouse, Rabbit
Concentration	1 mg/ml
Buffer/Preservatives	640.91mM DMSO, 136.36 mM Ethanolamine, 126.89 mM chlorides, 9.09mM phosphates, 9.09mM NaHCO3
Purification	Protein G Purified
Immunogen	Purified preparation of mouse liver lysosomal membranes
UniProt ID	**P17047**
MW	100-110kDa
Tested applications	ICC, IF, IP, WB
Dilution range	WB (1:1000), ICC/IF (1:500)
Application notes	1 µg/ml was sufficient for detection of LAMP2 in 20 µg of rat liver microsomes by ECL immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.
Specificity	Detects ~100-110kDa.
Clone Number	GL2A7
Storage	Conjugated antibodies should be stored according to the product label
Note	For research use only
Entrez	**16784**
NCBI	**NP_001017959.1**
Expiration Date	12 months from date of receipt.

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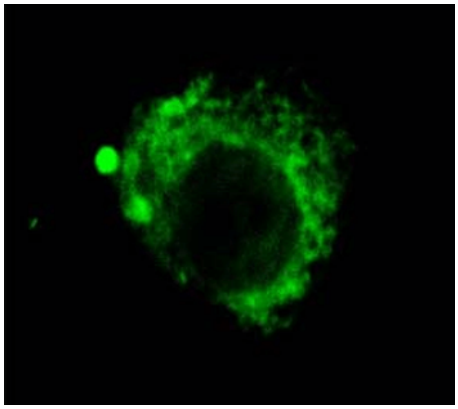
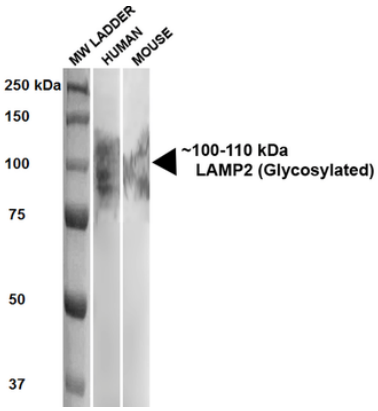


Immunocytochemistry/Immunofluorescence analysis using Rat Anti-LAMP2 Monoclonal Antibody, Clone GL2A7. Tissue: Corneal Endothelial Cell (CEC). Species: Rabbit. Primary Antibody: Rat Anti-LAMP2 Monoclonal Antibody at 1:1000. Secondary Antibody: FITC Goat Anti-Rat (green).



Western Blot analysis of Human, Mouse HEK293 and 3T3NIH cell lysates showing detection of ~100-110 kDa LAMP2 protein using Rat Anti-LAMP2 Monoclonal Antibody, Clone GL2A7. Lane 1: MW ladder. Lane 2: Human HEK293 lysate (20 µg). Lane 3: Mouse 3T3NIH lysate (10 µg). Block: 5% milk + TBST for 1 hour at RT. Primary Antibody: Rat Anti-LAMP2 Monoclonal Antibody at 1:500 for 1 hour at RT. Secondary Antibody: HRP Goat Anti-Rat at 1:100 for 1 hour at RT. Color Development: TMB solution for 5 min at RT. Predicted/Observed Size: ~100-110 kDa.

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