

LAMP1 Antibody
LAMP1 Antibody, Clone Ly1C6
Catalog # ASM10059**Specification**

LAMP1 Antibody - Product Information

Application	WB
Primary Accession	P14562
Other Accession	NP_036989.1
Host	Mouse
Isotype	IgG1
Reactivity	Human, Mouse, Rat, Hamster
Clonality	Monoclonal
Format	ATTO 488

Description

Mouse Anti-Rat LAMP1 Monoclonal IgG1

Target/Specificity

Detects ~120kDa.

Other Names

CD107 Antibody, CD107a Antibody, LAMPA Antibody, LGP120 Antibody, Igpa Antibody, Lysosome-associated membrane glycoprotein 1 Antibody, CD107 antigen-like family member A Antibody, 120 kDa lysosomal membrane glycoprotein Antibody, Lamp-1 Antibody

Immunogen

Rat liver lysosomal membrane preparations

Purification

Protein G Purified

Storage **-20°C**

Storage Buffer

PBS pH7.4, 50% glycerol, 0.09% sodium azide

Shipping Temperature

Blue Ice or 4°C

Certificate of Analysis

1 µg/ml was sufficient for detection of LAMP1 in rat liver microsome by ECL immunoblot analysis.

Cellular Localization

Cell Membrane | Endosome | Lysosome | Endosome membrane | Lysosome membrane

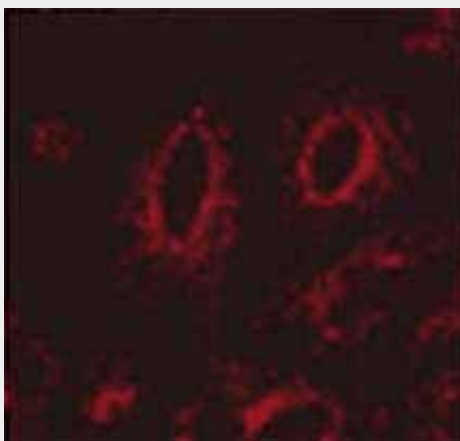
LAMP1 Antibody - Protocols

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

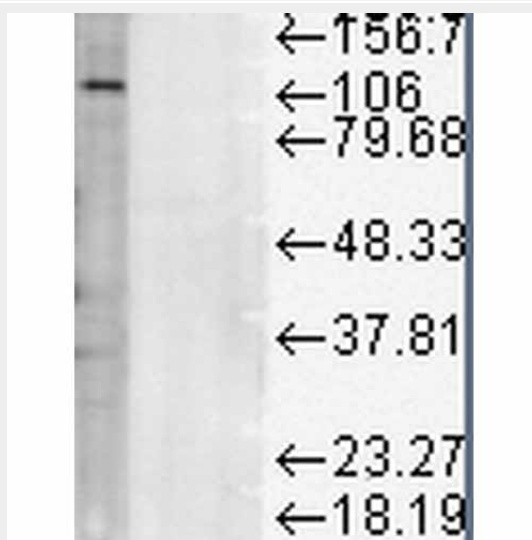
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)

- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

LAMP1 Antibody - Images



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-LAMP1 Monoclonal Antibody, Clone Ly1C6 (ASM10059). Tissue: transfected HeLa cells. Species: Human. Primary Antibody: Mouse Anti-LAMP1 Monoclonal Antibody (ASM10059) at 1:1000. Secondary Antibody: APC Goat Anti-Mouse (red). Courtesy of: Robert H Edwards, U. of Cali, San Fran School of Medicine.



Western Blot analysis of Rat liver microsome lysate showing detection of LAMP1 protein using Mouse Anti-LAMP1 Monoclonal Antibody, Clone Ly1C6 (ASM10059). Load: 15 µg. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-LAMP1 Monoclonal Antibody (ASM10059) at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.

LAMP1 Antibody - Background

Lysosome associated membrane proteins, or LAMP1 and LAMP2, are major constituents of the lysosomal membrane. The two have closely related structures, with 37% sequence homology (2). 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 (3). Upon stimulation, a rapid translocation of intracellular LAMPs to the cell membrane is dependent on a carboxyl-terminal tyrosine based motif (YXXI) (1). If there is a disturbance in this spacing, lysosome localization of LAMP1 is abolished and the mutant protein then cycles between the membrane and the endosome (3).

This stimulation has also been shown to have an associated release of histamine, leukotriene C (4) and prostaglandin D (2), which shows that LAMP-1 and LAMP-2 are activation markers for normal mast cells (1). 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 (4).

LAMP1 Antibody - References

1. Grutzkau, A. et al (2004) Cytometry A. 61(10): 62-68.
2. Furuta, K. et al. (1999) EMBO J. 17(5):1304-14.
3. Rohrer, J. et al. (1996) J Cell Biol. 132(4): 565-76.
4. Kannan, K., et al. (1996) Cell Immunol. 171: 10-19.
5. Lewis, V., et al. (1985) J. Cell Biol. 100: 1839-1847.
6. Jones, K.A., et al. (2004) Exp Cell Res 295(2): 512-524.