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Datasheet for 200-301-G09

LAMP1 Antibody

Overview

Description:	Anti-LAMP1 (MOUSE) Monoclonal Antibody - 200-301-G09
Item No.:	200-301-G09
Size:	100 µg
Applications:	IF, WB
Reactivity:	Rat, Hamster
Host Species:	Mouse

Product Details

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. 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. Upon stimulation, a rapid translocation of intracellular LAMPs to the cell membrane is dependent on a carboxyl terminal tyrosine based motif (YXXI). 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. This stimulation has also been shown to have an associated release of histamine, leukotriene C and prostaglandin D, which shows that LAMP-1 and LAMP-2 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. Ideal for investigators involved in cytokines, growth factors and cancer, as well as, Chaperones and Organelle Markers research.
Synonyms:	CD107, CD107a, LAMPA, LGP120, IgpA, Lysosome-associated membrane glycoprotein 1, CD107 antigen-like family member A, 120 kDa lysosomal membrane glycoprotein, Lamp-1
Host Species:	Mouse
Clonality:	Monoclonal
Clone ID:	Ly1C6
Format:	IgG1

Target Details

Gene Name:	Lamp1
Reactivity:	Rat, Hamster
Immunogen Type:	Other
Immunogen:	LAMP1 Antibody was produced in mice by repeated immunizations raised against rat liver lysosomal membrane preparations.
Purity/Specificity:	Anti-LAMP1 Antibody was purified by Protein G chromatography. A BLAST analysis was used to suggest cross-reactivity with LAMP1 from Hamster and Rat based on 100% homology with the immunizing sequence. Cross-reactivity with LAMP1 from other sources has not been determined.
Relevant Links:	• NCBI - NP_036989.1 • GeneID - 25328 • UniProtKB - P14562

Application Details

Tested Applications:	IF, WB
Application Note:	Anti-LAMP1 Antibody is tested for WB, IP, and IF microscopy. Expect a band approximately ~120kDa protein corresponding to the molecular mass of LAMP1 on SDS PAGE immunoblots. Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
IHC:	User Optimized
IP:	User Optimized
WB:	1µg/ml

Formulation

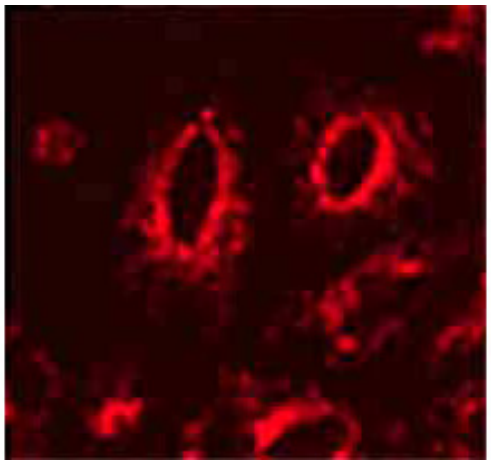
Physical State:	Liquid (sterile filtered)
Concentration:	1 mg/mL by UV absorbance at 280 nm
Buffer:	1X PBS, pH 7.4
Preservative:	0.09% (w/v) Sodium Azide

Stabilizer:	50% (v/v) Glycerol

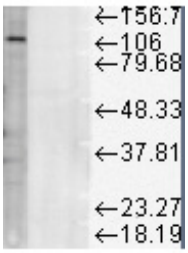
Shipping & Handling

Shipping Condition:	Wet Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Immunofluorescence Microscopy
Immunofluorescence of mouse anti-LAMP1 antibody. Tissue: Transfected HeLa cells. Antigen retrieval: not required. Primary Antibody: LAMP1 at 1ug/ml for 1h at RT. Secondary antibody: Anti-Mouse secondary at 1:10,000 for 45 min at RT. Localization: Cell Membrane. Staining: LAMP1 as red fluorescent signal.



Western Blot
Western Blot of mouse anti-LAMP1 antibody. Lane 1: Rat liver Microsomes. Primary antibody: LAMP1 antibody at 1:1000 for overnight at 4°C. Secondary antibody: Goat anti-mouse IgG HRP secondary antibody at 1:10,000 for 45 min at RT. Block: 5% Blotto overnight 4°C. Predicted/Observed size: 43.9 kDa/120kD. Other band(s): none.

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