



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# Anti-LAMP1 Antibody [Ly1C6]

Mouse Anti-Rat LAMP1 Monoclonal IgG1  
Catalog No. SMC-140



Discovery through partnership | Excellence through quality

## Overview

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### Product Name

LAMP1 Antibody

### Description

Mouse Anti-Rat LAMP1 Monoclonal IgG1

### Species Reactivity

Human, Mouse, Rat, Hamster

### Applications

WB, ICC/IF, IP

### Antibody Dilution

WB (1:1000), ICC/IF (1:1000); optimal dilutions for assays should be determined by the user.

### Host Species

Mouse

### Immunogen Species

Rat

### Immunogen

Rat liver lysosomal membrane preparations

### Concentration

1 mg/ml

### Conjugates

Alkaline Phosphatase, APC, ATTO 390, ATTO 488, ATTO 565, ATTO 594, ATTO 633, ATTO 655, ATTO 680, ATTO 700, Biotin, FITC, HRP, PE/ATTO 594, PerCP, RPE, Streptavidin, Unconjugated

## Properties

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### Storage Buffer

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

### Storage Temperature

-20°C

### Shipping Temperature

Blue Ice or 4°C

### Purification

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Protein G Purified

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**Clonality**

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Monoclonal

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**Clone Number**

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Ly1C6

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**Isotype**

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IgG1

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**Specificity**

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Detects ~120kDa.

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**Cite This Product**

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Mouse Anti-Rat LAMP1 Monoclonal, Clone Ly1C6 (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SMC-140)

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**Certificate Of Analysis**

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

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**Biological Description**

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**Alternative 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

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**Research Areas**

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Cell Signaling, Chaperones, Neuroscience, Organelle Markers, Trafficking

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**Cellular Localization**

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Cell membrane, Endosome, Endosome membrane, Lysosome, Lysosome membrane

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**Accession Number**

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NP\_036989.1

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**Gene ID**

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25328

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**Swiss Prot**

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P14562

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**Scientific Background**

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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).

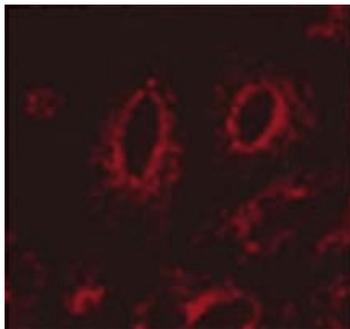
This stimulation has also been shown to have an associated release of histamine, leukotriene C (4) and prostaglandin D (2), which shows that LAMP-1 and LAMP-2 are activation markers for normal mast cells (1). They have also been linked to the inflammatory response in that they promote adhesion of human peripheral blood mononuclear cells (PBMC) to vascular endothelium, and

therefore possibly the adhesion of PBMC to the site of inflammation (4).

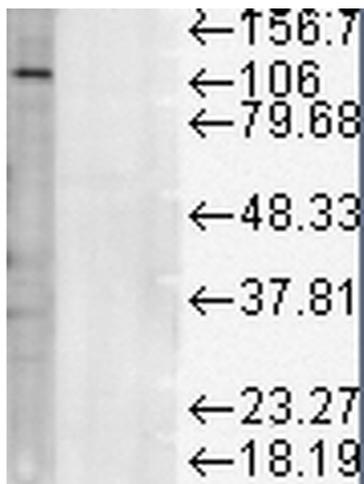
## References

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.

## Product Images



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-LAMP1 Monoclonal Antibody, Clone Ly1C6 (SMC-140). Tissue: transfected HeLa cells. Species: Human. Primary Antibody: Mouse Anti-LAMP1 Monoclonal Antibody (SMC-140) 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 microsomes lysate showing detection of LAMP1 protein using Mouse Anti-LAMP1 Monoclonal Antibody, Clone Ly1C6 (SMC-140). Load: 15 µg protein. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-LAMP1 Monoclonal Antibody (SMC-140) at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.

## Product Citations (2)

### Immunocytochemistry/Immunofluorescence

#### **Essential role of vesicular nucleotide transporter in vesicular storage and release of nucleotides in platelets.**

Hiasa, M. et al. (2014) Physiol Rep. 2(6).pii: e12034.

**PubMed ID:** 24907298 **Reactivity:** Human **Applications:** Immunocytochemistry/Immunofluorescence

#### **Immunological identification of vesicular nucleotide transporter in intestinal L cells.**

Harada Y, Hiasa M. (2014) Biol Pharm Bull. 37(7):1090-5.

**PubMed ID:** 24989000 **Reactivity:** Mouse **Applications:** Immunocytochemistry/Immunofluorescence

## Reviews

Based on validation through cited publications.



**StressMarq Biosciences**

June 14, 2016: