PRODUCT INFORMATION

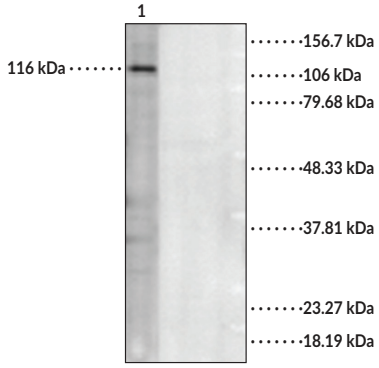
LAMP-1/CD107a Monoclonal Antibody (Clone Ly1C6)

Item No. 10011443

Overview and Properties

Contents:	This vial contains 25 or 100 µg of protein G-affinity purified monoclonal antibody.
Synonyms:	CD107 Antigen-like Family Member A, CD107a, Lysosome-associated Membrane Glycoprotein 1, Lysosome-associated Membrane Protein 1
Immunogen:	Rat liver lysosomal membrane preparations
Cross Reactivity:	(+) LAMP-1
Species Reactivity:	(+) Hamster, rat; other species not tested
Uniprot No.:	P14562
Form:	Liquid
Molecular Weight:	~120 kDa
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS, pH 7.4, with 50% glycerol and 0.09% sodium azide
Concentration:	1 mg/ml
Clone:	Ly1C6
Host:	Mouse
Isotype:	IgG1
Applications:	Immunocytochemistry (ICC), Immunoprecipitation (IP), and Western blot (WB); the recommended starting dilution for ICC, IP, and WB is 1:1,000. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Lane 1: Rat liver microsome lysate showing detection of LAMP-1/CD107a Monoclonal Antibody (Clone Ly1C6) (15 µg)

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Description

Lysosome-associated membrane protein 1 (LAMP-1), also known as CD107a, is an abundant lysosomal integral membrane glycoprotein.[1] It is composed of a signal peptide, two LAMP-like domains that are separated by a proline-rich hinge region, a transmembrane domain, and a C-terminal tail that contains a YXXI tyrosine-based motif, which is required for targeting of LAMP-1 to the lysosome.[1,2] LAMP-1 is ubiquitously expressed and localizes to lysosomes, endosomes, and the plasma membrane.[2,3] It is involved in human peripheral blood mononuclear cells (PBMC) adhesion to vascular endothelium, natural killer (NK) cell degranulation, virus entry, and cancer progression and metastasis.[4-7] Homozygous knockout of *Lamp1* prevents Lassa virus infection in mice.[6] Pulmonary protein levels of LAMP-1 are increased in patients with chronic obstructive pulmonary disease (COPD), and increased LAMP-1 lung levels positively correlate with smoking history and negatively correlate with lung function.[7] Cayman's LAMP-1/CD107a Monoclonal Antibody (Clone Ly1C6) can be used for immunocytochemistry (ICC), immunoprecipitation (IP), and Western blot (WB) applications. The antibody recognizes LAMP-1 at approximately 120 kDa from rat and hamster samples.

References

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