

PRODUCT INFORMATION



LAMP-1/CD107a Rabbit Monoclonal Antibody (Clone 107)

Item No. 38074

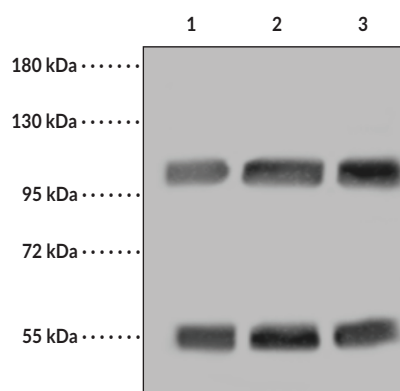
Overview and Properties

Contents:	This vial contains 50 or 100 µl of protein A-affinity purified monoclonal antibody.
Synonyms:	CD107a, CD107 Antigen-like Family Member A, Lysosome-associated Membrane Glycoprotein 1, Lysosome-associated Membrane Protein 1
Immunogen:	Recombinant human LAMP-1 extracellular domain
Cross Reactivity:	(+) LAMP1
Species Reactivity:	(+) Human
Molecular Weight:	120 kDa
Form:	Liquid
Storage:	-80°C (as supplied)
Stability:	≥1 year
Storage Buffer:	0.2 µm filtered solution in PBS
Clone:	107
Host:	Rabbit
Isotype:	IgG
Applications:	ELISA, Flow Cytometry (FC), Immunocytochemistry (ICC), Immunofluorescence (IF), Immunohistochemistry Paraffin (IHC-P), Immunoprecipitation (IP), and Western blot (WB); the recommended starting dilution is 1:25,000-1:50,000 for ELISA, 1:100-1:500 for ICC and IF, 1:500-1:2,500 for IHC-P, and 1:500-1:1,000 for WB. The recommended starting concentration is 1:100-1:500 for FC. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Lane 1: Jurkat Whole Cell Lysate (30 ng)
WB of LAMP-1/CD107a Rabbit Monoclonal Antibody (Clone 107) at a dilution of 1:500.



Lane 1: Jurkat IP eluate
Lane 2: HeLa IP eluate
Lane 3: Daudi IP eluate

WB of LAMP-1/CD107a Rabbit Monoclonal Antibody (Clone 107) at a dilution of 1:100 following the IP of 500 µg of cell lysates.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

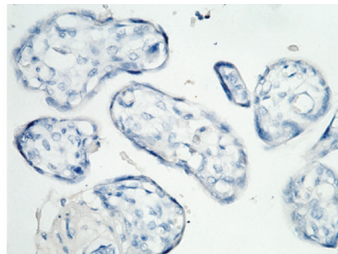
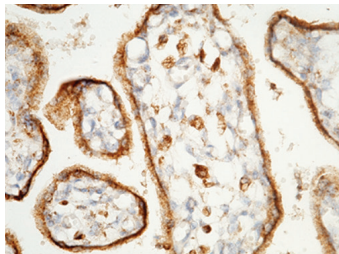
SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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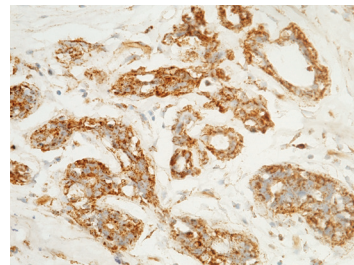
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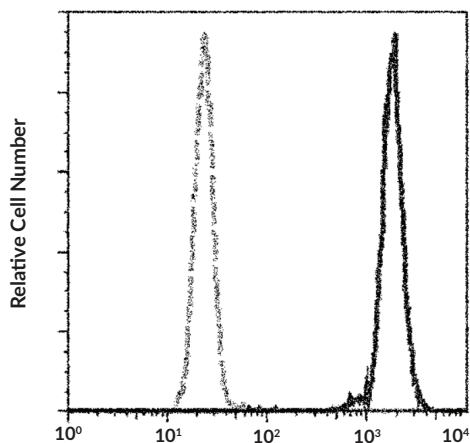
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Immunohistochemical staining of formalin-fixed and paraffin-embedded human LAMP-1 in human placenta using LAMP-1/CD107a Rabbit Monoclonal Antibody (Clone 107) at a dilution of 1:1,000. The left panel is incubated with primary antibody. The right panel is incubated with a mixture of primary antibody and antigen (recombinant protein).

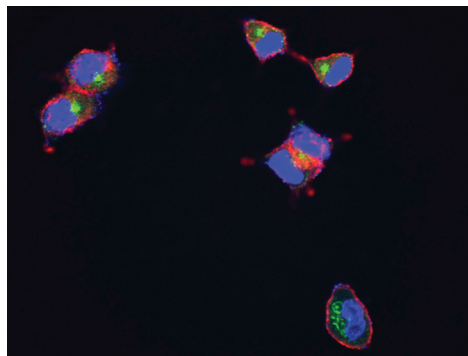


Immunohistochemical staining of human LAMP-1 in human breast carcinoma using LAMP-1/CD107a Rabbit Monoclonal Antibody (Clone 107) at a dilution of 1:1,000.



Purified LAMP-1 (CD107a), with negative control (FITC second step)

Flow cytometry of Human LAMP-1(CD107a) with Jurkat cells. Cells were stained with LAMP-1/CD107a Rabbit Monoclonal Antibody (Clone 107), then a FITC-conjugated second step antibody.



Immunofluorescent labeling of human LAMP-1 in MCF7 cells. Cells were fixed with 4% PFA, permeabilized with 1% Triton X-100 in PBS, blocked with 10% serum, and incubated with LAMP-1/CD107a Rabbit Monoclonal Antibody (Clone 107) at a dilution of 1:300. Then cells were stained with the Alexa Fluor® 488-conjugated Goat Anti-rabbit IgG secondary antibody, counterstained with Alexa Fluor® 546-conjugated phalloxins (red) and DAPI (blue).

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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.^{1,2} 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.^{3,5-7} 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.⁸ Cayman's LAMP-1/CD107a Rabbit Monoclonal Antibody (Clone 107) can be used for ELISA, flow cytometry (FC), immunocytochemistry (ICC), immunofluorescence (IF), immunohistochemistry paraffin (IHC-P), immunoprecipitation (IP), and Western blot (WB) applications. The antibody recognizes LAMP-1 at 120 kDa from human samples.

References

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