

CD107a (LAMP-1) Monoclonal Antibody (eBioH4A3), Alexa Fluor 488, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Human
Published Species	Human
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), Alexa Fluor 488, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	eBioH4A3
Conjugate	Alexa Fluor® 488
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.1% gelatin, 0.2% BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2016657

Applications	Tested Dilution	Publications
Immunocytochemistry (ICC/IF)	0.125 µg/mL	6 Publications
Flow Cytometry (Flow)	5 µL (0.125 µg)/test	7 Publications

Product Specific Information

Description: The eBioH4A3 monoclonal antibody reacts with human CD107a, also known as lysosomal-associated membrane protein-1 (LAMP-1). CD107a is a highly glycosylated protein of approximately 110kDa. It is predominantly expressed intracellularly in the lysosomal/endosomal membrane in nearly all cells. CD107a is transiently expressed on the cell surface of degranulating cytolytic T cells, and is also upregulated on the surface of activated platelets and some cancer cells.

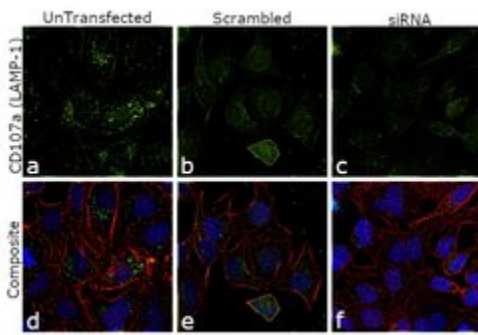
Applications Reported: This eBioH4A3 antibody has been reported for use in intracellular staining followed by flow cytometric analysis. It has also been reported for use in surface staining in a flow cytometric based degranulation assay.

Applications Tested: This eBioH4A3 antibody has been pre-titrated and tested by intracellular staining and flow cytometric analysis of normal human peripheral blood cells. This can be used at 5 µL (0.125 µg) per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test.

Excitation: 488 nm; **Emission:** 519 nm; **Laser:** Blue Laser.

Filtration: 0.2 µm post-manufacturing filtered.

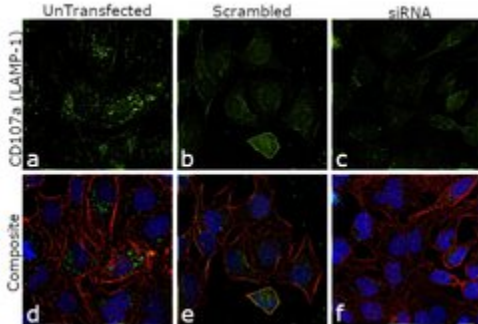
Advanced Verification Data



CD107a (LAMP-1) Antibody (53-1079-42)

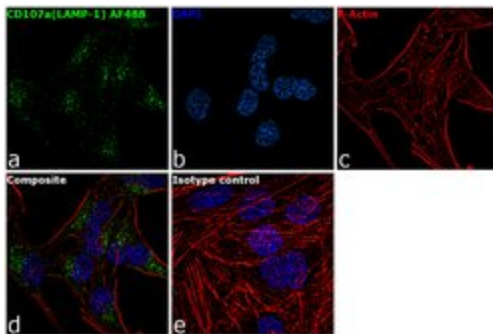
Antibody specificity was demonstrated by siRNA mediated knockdown of target protein. HeLa cells were transfected with CD107a (LAMP-1) siRNA and reduction of signal was observed in Immunofluorescence using CD107a (LAMP-1) Monoclonal Antibody, Alexa Fluor 488, eBioscience™ (Product # 53-1079-41). Knockdown validation info.

Product Images For CD107a (LAMP-1) Monoclonal Antibody (eBioH4A3), Alexa Fluor 488, eBioscience™



CD107a (LAMP-1) Antibody (53-1079-42) in ICC/IF

Knockdown of CD107a (LAMP1) was achieved by transfecting HeLa cells with CD107a (LAMP1) specific siRNAs (Silencer® select Product # s8080, s8081). Immunofluorescence analysis was performed using untransfected HeLa cells (panels a, d), transfected with non-specific scrambled siRNA (panels b,e) and transfected with CD107a (LAMP1) specific siRNAs (panel c,f). Cells were fixed, permeabilized, and probed with LAMP1 Monoclonal Antibody (H4A3), Alexa Fluor 488 (Product # MA5-18121, 1:250 dilution). Nuclei (blue) were stained using ProLong™ Diamond Antifade Mountant with DAPI (Product # P36962) and Rhodamine Phalloidin (Product # R415, 1:300) was used for cytoskeletal F-actin (red) staining. Reduction of specific cytoplasmic localization was observed upon siRNA mediated knockdown (panel c,f) confirming specificity of the antibody to CD107a (LAMP1). The images were captured at 60X magnification.



CD107a (LAMP-1) Antibody (53-1079-42) in ICC/IF

Immunofluorescence analysis of CD107a (LAMP-1) was performed using 70% confluent log phase HeLa cells. The cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton™ X-100 for 10 minutes, and blocked with 1% BSA for 1 hour at room temperature. The cells were labeled with CD107a (LAMP-1), Alexa Fluor 488, Mouse Monoclonal antibody (Product # 53-1079-41) at 0.125 µg/mL in 0.1% BSA and incubated at 4 degree Celsius overnight (Panel a: green). Nuclei (Panel b: blue) were stained with SlowFade® Gold Antifade Mountant with DAPI (Product # S36938). F-actin (Panel c: red) was stained with Rhodamine Phalloidin (Product # R415, 1:300). Panel d represents the merged image showing cytoplasmic localization. Panel e represents the isotype control. The images were captured at 60X magnification.

View more figures on thermofisher.com

13 References

Immunocytochemistry (6)

The Journal of clinical investigation

Targeting cancer metabolism by simultaneously disrupting parallel nutrient access pathways.

Authors: Kim SM,Roy SG,Chen B,Nguyen TM,McMonigle RJ,McCracken AN,Zhang Y,Kofuji S,Hou J,Selwan E,Finicle BT,Nguyen TT,Ravi A,Ramirez MU,Wiher T,Guenther GG,Kono M,Sasaki AT,Weisman LS,Potma EO,Tromberg BJ,Edwards RA,Hanessian S,Edinger AL

Species
Human

Dilution
1:2,000

Year
2016

Cell death & disease

Fucosylation of LAMP-1 and LAMP-2 by FUT1 correlates with lysosomal positioning and autophagic flux of breast cancer cells.

"53-1079 was used in Immunofluorescence to demonstrate how the downregulation of FUT1, which leads to the perinuclear localisation of LAMP-1 and 2, is correlated with an increased rate of autophagic flux of breast cancer cells."

Authors: Tan KP,Ho MY,Cho HC,Yu J,Hung JT,Yu AL

Species
Human

Dilution
Not Cited

Year
2016

[View more ICC/IF references on thermofisher.com](#)

Flow Cytometry (7)

Oncoimmunology

T cells targeting NY-ESO-1 demonstrate efficacy against disseminated neuroblastoma.

"Published figure using CD107a (LAMP-1) monoclonal antibody (Product # 53-1079-42) in Flow Cytometry"

Authors: Singh N,Kulikovskaya I,Barrett DM,Binder-Scholl G,Jakobsen B,Martinez D,Pawel B,June CH,Kalos MD,Grupp SA

Species
Not Applicable

Dilution
Not Cited

Year
2021

PLoS pathogens

HLA-B*27:05 alters immunodominance hierarchy of universal influenza-specific CD8+ T cells.

"Published figure using CD107a (LAMP-1) monoclonal antibody (Product # 53-1079-42) in Flow Cytometry"

Authors: Sant S,Quiñones-Parra SM,Koutsakos M,Grant EJ,Loudovaris T,Mannering SI,Crowe J,van de Sandt CE,Rimmelzwaan GF,Rossjohn J,Gras S,Loh L,Nguyen THO,Kedzierska K

Species
Not Applicable

Dilution
Not Cited

Year
2020

[View more Flow references on thermofisher.com](#)

More applications with references on thermofisher.com

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