

CD107a (LAMP-1) Monoclonal Antibody (eBio1D4B (1D4B)), eFluor™ 660, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Human, Mouse
Published Species	Mouse
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), eFluor™ 660, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	eBio1D4B (1D4B)
Conjugate	eFluor™ 660
Excitation/Emission Max	651/668 nm
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_11149501

Applications	Tested Dilution	Publications
Western Blot (WB)	0.4 µg/mL	4 Publications
Immunohistochemistry (Paraffin) (IHC (P))	0.5 µg/mL	-
Immunocytochemistry (ICC/IF)	-	7 Publications
Flow Cytometry (Flow)	0.25 µg/test	11 Publications

Product Specific Information

Description: The eBio1D4B monoclonal antibody reacts with mouse CD107a, also known as lysosomal-associated membrane protein-1 (LAMP-1). CD107a is a type I, lysosomal membrane protein that is extensively glycosylated. It is expressed constitutively in the late endosomes-lysosomes in all cells. CD107a is also transiently expressed on the cell surface of degranulating cytolytic T cells. Additionally, CD107a has been implicated in a variety of cellular functions including cancer metastasis and is also a marker for lysosomal storage disorders.

Applications Reported: This eBio1D4B (1D4B) antibody has been reported for use in intracellular staining and flow cytometric analysis. It has also been reported for use in surface staining in a flow cytometric based degranulation assay.

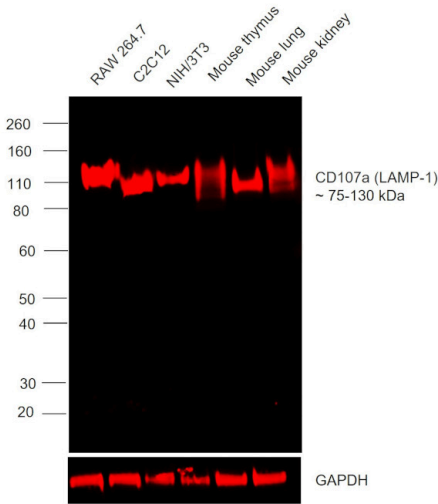
Applications Tested: This eBio1D4B (1D4B) antibody has been tested by intracellular staining and flow cytometric analysis of mouse thioglycolate-induced peritoneal exudate cells. This can be used at less than or equal to 0.25 µg per test. A test is defined as the amount (µg) of antibody that will stain 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. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

eFluor® 660 is a replacement for Alexa Fluor® 647. eFluor® 660 emits at 659 nm and is excited with the red laser (633 nm). Please make sure that your instrument is capable of detecting this fluorochrome.

Excitation: 633-647 nm; Emission: 668 nm; Laser: Red Laser.

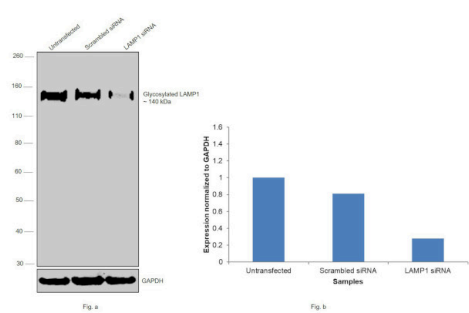
Filtration: 0.2 µm post-manufacturing filtered.

Product Images For CD107a (LAMP-1) Monoclonal Antibody (eBio1D4B (1D4B)), eFluor™ 660, eBioscience™



CD107a (LAMP-1) Antibody (50-1071-82) in WB

Fluorescent western blot was performed using Anti-CD107a (LAMP-1) Monoclonal Antibody (eBio1D4B (1D4B)), eFluor™ 660, eBioscience™ (Product # 50-1071-82) and a ~ 75-130 kDa band corresponding to CD107a (LAMP-1) was observed across the cell lines tested. Whole cell extracts (30 µg lysate) of RAW 264.7 (Lane 1), C2C12 (Lane 2), NIH/3T3 (Lane 3) and tissue extracts (30 µg lysate) of mouse thymus (Lane 4), mouse lung (Lane 5) and mouse kidney (Lane 6) were electrophoresed using NuPAGE™ 4-12% Bis-Tris Protein Gel (Product # NP0322BOX), 12 well. Resolved proteins were then transferred onto a nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with the primary antibody (0.4 µg/mL) and detected by fluorescence using the iBright™ FL1500 Imaging System (Product # A44115). Fluorescent detection was performed.

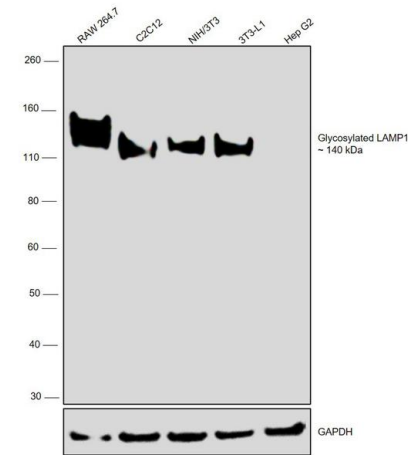


CD107a (LAMP-1) Antibody (50-1071-82)

Antibody specificity was demonstrated by siRNA mediated knockdown of target protein. RAW 264.7 cells were transfected with LAMP1 (Lysosome-associated membrane glycoprotein 1) siRNA and decrease in signal intensity was observed in western blot application using Anti-CD107a (LAMP-1) Monoclonal Antibody (eBio1D4B (1D4B)), eFluor 660, eBioscience™ (Product # 50-1071-82). {KD}

CD107a (LAMP-1) Antibody (50-1071-82) in WB

Western blot was performed using Anti-CD107a (LAMP-1) Monoclonal Antibody (eBio1D4B (1D4B)), eFluor 660, eBioscience™ (Product # 50-1071-82) and a 140kDa band corresponding to LAMP1 (Lysosome-associated membrane glycoprotein 1) was observed across cell lines tested except in Hep G2. Whole cell extracts (40 µg lysate) of RAW 264.7 (Lane 1), C2C12 (Lane 2), NIH/3T3 (Lane 3), 3T3-L1 (Lane 4), and Hep G2 (Lane 5) were electrophoresed using NuPAGE™ 4-12% Bis-Tris Protein Gel (Product # NP0321BOX). Resolved proteins were then transferred onto a Nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with the primary antibody (1:1000 dilution) and detected by chemiluminescence with F(ab2-Rabbit anti-Rat IgG (H+L Secondary Antibody, HRP (Product # PA1-29927, 1:4000 dilution) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using Novex® ECL Chemiluminescent Substrate Reagent Kit (Product # WP20005). LAMP1 is a heavily glycosylated protein and is reported to show bands above ~110kDa



22 References

Western Blot (4)

<p>Nature communications</p> <p>A bacterial autotransporter impairs innate immune responses by targeting the transcription factor TFE3.</p> <p>"Published figure using CD107a (LAMP-1) monoclonal antibody (Product # 50-1071-82) in Western Blot"</p> <p>Authors: Ta A,Ricci-Azevedo R,Vasudevan SO,Wright SS,Kumari P,Havira MS,Surendran Nair M,Rathinam VA, Vanaja SK</p>	<p>Year</p> <p>2023</p>
<p>Frontiers in pharmacology</p> <p>An 8-Hydroxy-Quinoline Derivative Protects Against Lipopolysaccharide-Induced Lethality in Endotoxemia by Inhibiting HMGB1-Mediated Caspase-11 Signaling.</p> <p>"Published figure using CD107a (LAMP-1) monoclonal antibody (Product # 50-1071-82) in Western Blot"</p> <p>Authors: Wang X,Shi J,Li Z,Li L,Zhang R,Bai Y,Li J,Liang F,Tang Y</p>	<p>Year</p> <p>2021</p>

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Immunocytochemistry (7)

<p>The Journal of biological chemistry</p> <p>Synaptojanin1 deficiency upregulates basal autophagosome formation in astrocytes.</p> <p>"Published figure using CD107a (LAMP-1) monoclonal antibody (Product # 50-1071-82) in Immunocytochemistry"</p> <p>Authors: Pan PY,Zhu J,Rizvi A,Zhu X,Tanaka H,Dreyfus CF</p>	<p>Year</p> <p>2021</p>
<p>BMC immunology</p> <p>Macrophage mediated recognition and clearance of Borrelia burgdorferi elicits MyD88-dependent and -independent phagosomal signals that contribute to phagocytosis and inflammation.</p> <p>"Published figure using CD107a (LAMP-1) monoclonal antibody (Product # 50-1071-82) in Immunocytochemistry"</p> <p>Authors: Benjamin SJ,Hawley KL,Vera-Licona P,La Vake CJ,Cervantes JL,Ruan Y,Radolf JD,Salazar JC</p>	<p>Year</p> <p>2021</p>

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Flow (11)

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