CD107b (LAMP-2) Monoclonal Antibody (eBioH4B4 (H4B4)), 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	eBioH4B4 (H4B4)
Conjugate	Alexa Fluor™ 488
Excitation/Emission Max	499/520 nm
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.2% BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_10596504

Applications	Tested Dilution	Publications
Western Blot (WB)	-	2 Publications
Immunocytochemistry (ICC/IF)	0.25 µg/mL	1 Publication
Flow Cytometry (Flow)	5 µL (0.25 µg)/test	-

Product Specific Information

Description: The eBioH4B4 monoclonal antibody reacts with human CD107b, also known as lysosomal-associated membrane protein-2 (LAMP-2). CD107b is a highly glycosylated, type I transmembrane protein of approximately 105 kDa. It is expressed intracellularly in lysosomal/endosomal membranes in nearly all cells. It is also expressed on the surface of degranulating T cells (to a lesser extent than CD107a) and activated platelets as well as some cancer cells. In humans, mutations in CD107b results in a lysosomal glycogen storage disorder, known as Danon disease.

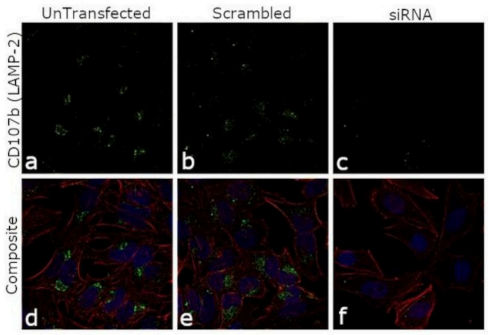
Applications Reported: This eBioH4B4 (H4B4) antibody has been reported for use in intracellular staining followed by flow cytometric analysis. It has also been reported for use in surface staining in a flow cytometric based degranulation assay.

Applications Tested: This eBioH4B4 (H4B4) antibody has been pre-titrated and tested by intracellular staining and flow cytometric analysis of Jurkat cell line. This can be used at 5 µL (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 10^5 to 10^8 cells/test.

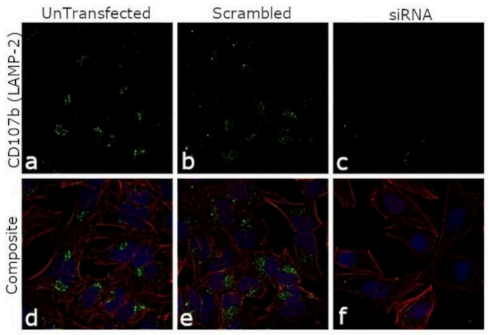
Excitation: 488 nm; Emission: 519 nm; Laser: Blue Laser.

Filtration: 0.2 µm post-manufacturing filtered.

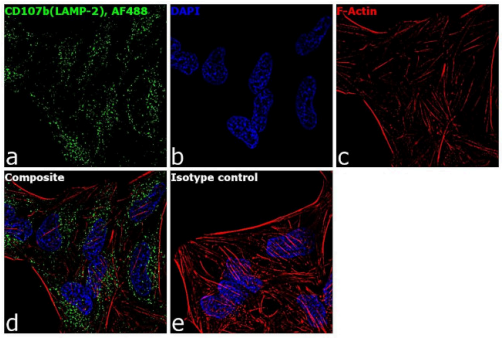
Product Images For CD107b (LAMP-2) Monoclonal Antibody (eBioH4B4 (H4B4)), Alexa Fluor™ 488, eBioscience™



CD107b (LAMP-2) Antibody (53-1078-42)
Antibody specificity was demonstrated by siRNA mediated knockdown of target protein. HeLa cells were transfected with CD107b (LAMP-2) siRNA and reduction of signal was observed in Immunofluorescence using CD107b (LAMP-2) Monoclonal Antibody, Alexa Fluor 488, eBioscience™ (Product # 53-1078-42). {KD}



CD107b (LAMP-2) Antibody (53-1078-42) in ICC/IF
Knockdown of CD107b (LAMP2) was achieved by transfecting HeLa cells with CD107b (LAMP2) specific siRNAs (Silencer® select Product # s533069, s8086). Immunofluorescence analysis was performed using untransfected HeLa cells (panels a, d), transfected with non-specific scrambled siRNA (panels b,e) and transfected with CD107b (LAMP2) specific siRNAs (panel c,f). Cells were fixed, permeabilized, and probed with CD107b (LAMP-2) Monoclonal Antibody (eBioH4B4 (H4B4)), Alexa Fluor 488, eBioscience™ (Product # 53-1078-42, 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 CD107b (LAMP2). The images were captured at 60X magnification.



CD107b (LAMP-2) Antibody (53-1078-42) in ICC/IF
Immunofluorescence analysis of CD107b (LAMP-2) 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 CD107b(LAMP-2), Alexa Fluor 488, Mouse Monoclonal antibody (Product # 53-1078-42) at 0.25 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

3 References

Western Blot (2)

International journal of molecular sciences

Improved Autophagic Flux in Escapers from Doxorubicin-Induced Senescence/Polyploidy of Breast Cancer Cells.

"Published figure using CD107b (LAMP-2) monoclonal antibody (Product # 53-1078-42) in Western Blot"

Authors: Bojko A,Staniak K,Czarnecka-Herok J,Sunderland P,Dudkowska M,liwiska MA,Salmina K,Sikora E

Year
2020

Biochemistry and biophysics reports

Lysosomal membrane permeabilization is involved in oxidative stress-induced apoptotic cell death in LAMP2-deficient iPSCs-derived cerebral cortical neurons.

"Published figure using CD107b (LAMP-2) monoclonal antibody (Product # 53-1078-42) in Western Blot"

Authors: Law CY,Siu CW,Fan K,Lai WH,Au KW,Lau YM,Wong LY,Ho JCY,Lee YK,Tse HF,Ng KM

Year
2016

Immunocytochemistry (1)

The Journal of allergy and clinical immunology

An actin cytoskeletal barrier inhibits lytic granule release from natural killer cells in patients with Chediak-Higashi syndrome.

"53-1078 was used in Immunocytochemistry-immunoflourescence to determine the biochemical cause of the impaired cytotoxicity of natural killer cells in patients with Chediak-Higashi Syndrome."

Authors: Gil-Krzewska A,Saeed MB,Oszmiana A,Fischer ER,Lagrue K,Gahl WA,Introne WJ,Coligan JE,Davis DM, Krzewski K

Year
2018

Species
Human