abcam

ab326518

PE Anti-LAMP2 antibody [H4B4]

Key facts

Isotype	IgG1
Host species	Mouse
Conjugation	PE
Excitation/Emission	Ex: 480;565nm, Em: 578nm
Storage buffer	pH: 7.4 Preservative: 0.098% Sodium azide Constituents: PBS, 0.2% BSA
Form	Liquid
Clonality	Monoclonal
Clone number	H4B4
Purification technique	Size-exclusion chromatography
Specificity	The mouse monoclonal antibody H4B4 recognizes an extracellular/luminal epitope of CD107b / LAMP-2, an extensively glycosylated 100-120 kDa widely expressed lysosome-associated protein.
Light chain type	kappa
Purification notes	Purified antibody is conjugated with R-phycoerythrin (PE) under optimum conditions. Unconjugated antibody and free fluorochrome are removed by size-exclusion chromatography.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	Flow cytometry: The reagent is designed for analysis of human blood cells using 10 µl reagent / 100 µl of whole blood or 10^6 cells in a suspension. The content of a vial (1 ml) is sufficient for 100 tests. Intracellular and extracellular staining.

Target data

See full target information LAMP2

Function	Lysosomal membrane glycoprotein which plays an important role in lysosome biogenesis, lysosomal pH regulation and autophagy (PubMed:11082038, PubMed:18644871, PubMed:24880125, PubMed:27628032, PubMed:36586411, PubMed:37390818, PubMed:8662539). Acts as an important regulator of lysosomal lumen pH regulation by acting as a direct inhibitor of the proton channel TMEM175, facilitating lysosomal acidification for optimal hydrolase activity (PubMed:37390818). Plays an important role in chaperone-mediated autophagy, a process that mediates lysosomal degradation of proteins in response to various stresses and as part of the normal turnover of proteins with a long biological half-live (PubMed:11082038, PubMed:18644871, PubMed:24880125, PubMed:27628032, PubMed:36586411, PubMed:8662539). Functions by binding target proteins, such as GAPDH, GPX4, NLRP3 and MLLT11, and targeting them for lysosomal degradation (PubMed:11082038, PubMed:18644871, PubMed:24880125, PubMed:36586411, PubMed:8662539). In the chaperone-mediated autophagy, acts downstream of chaperones, such as HSPA8/HSC70, which recognize and bind substrate proteins and mediate their recruitment to lysosomes, where target proteins bind LAMP2 (PubMed:36586411). Plays a role in lysosomal protein degradation in response to starvation (By similarity). Required for the fusion of autophagosomes with lysosomes during autophagy (PubMed:27628032). Cells that lack LAMP2 express normal levels of VAMP8, but fail to accumulate STX17 on autophagosomes, which is the most likely explanation for the lack of fusion between autophagosomes and lysosomes (PubMed:27628032). Required for normal degradation of the contents of autophagosomes (PubMed:27628032). Required for efficient MHC class II-mediated presentation of exogenous antigens via its function in lysosomal protein degradation; antigenic peptides generated by proteases in the endosomal/lysosomal compartment are captured by nascent MHC II subunits (PubMed:15894275, PubMed:20518820). Is not required for efficient MHC class II-mediated presentation of endogenous antigens (PubMed:20518820). Isoform LAMP-2C. Modulates chaperone-mediated autophagy. Decreases presentation of endogenous antigens by MHCII. Does not play a role in the presentation of exogenous and membrane-derived antigens by MHCII. (Microbial infection) Supports the FURIN-mediated cleavage of mumps virus fusion protein F by interacting with both FURIN and the unprocessed form but not the processed form of the viral protein F.

Storage

Shipped at conditions	Ambient - Can Ship with Ice

Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze, Store in the dark

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

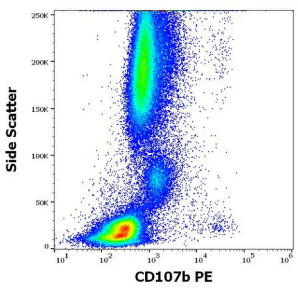
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

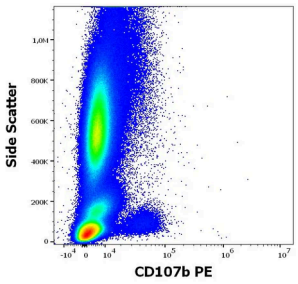
8 product images



Flow Cytometry - PE Anti-LAMP2 antibody [H4B4] (ab326518)

LAMP2 Flow Cytometry staining of anti-IgE stimulated human peripheral whole blood using mouse Anti-LAMP2 antibody

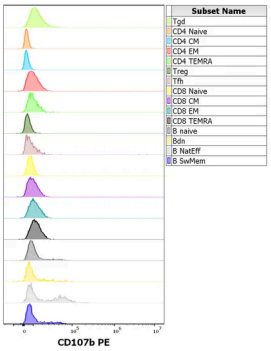
Flow cytometry surface staining pattern of anti-IgE stimulated human peripheral whole blood stained using ab326518 (concentration in sample 1.67 µg/ml).



Flow Cytometry - PE Anti-LAMP2 antibody [H4B4] (ab326518)

LAMP2 Flow Cytometry staining of blood leukocytes isolated from buffy coats using mouse Anti-LAMP2 antibody

Analysis of the antibody staining profile was performed on blood leukocytes isolated from buffy coats. HCDM CDMaps standardized procedures (Kuzilkova D et al. Front Immunol. 2022;13:827898) were used for cell isolation and surface staining of blood leukocytes, with the modification of staining protocol using cytometry test tubes. ab326518 was used in concentration 5 µg/ml in stained blood sample (2 x 10^6 cells).

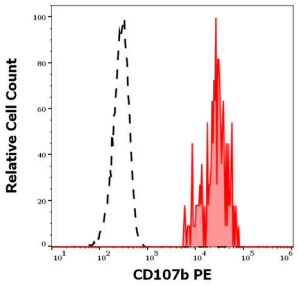


Flow Cytometry (Intracellular) - PE Anti-LAMP2 antibody [H4B4] (ab326518)

LAMP2 Flow Cytometry (Intracellular) staining of Suspension of blood leukocytes isolated from buffy coats using mouse Anti-LAMP2 antibody

Expression profiling on peripheral blood subsets using ab326518. Intracellular staining, adaptive panel

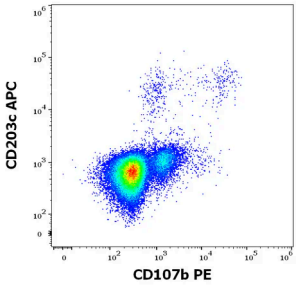
Analysis of the antibody staining profile was performed on blood leukocytes isolated from buffy coats and permeabilized using EXCELLYSE XPerm buffer set.
HCDM CDMaps standardized procedures (Kuzilkova D et al. Front Immunol. 2022;13:827898) were used for leukocyte isolation.
Suspension of blood leukocytes isolated from buffy coats (2 x 10^6 cells) was added to the mixture of optimized backbone antibody panel (HLDA Adaptive) and Monocyte Blocking Buffer, vortexed and incubated for 20 min.
Next, EXCELLYSE XPerm buffer set was used for leukocytes permeabilization according to the instruction procedure.
ab326518 was used in concentration 5 µg/ml in stained blood sample (2 x 10^6cells).



Flow Cytometry - PE Anti-LAMP2 antibody [H4B4] (ab326518)

LAMP2 Flow Cytometry staining of anti-IgE stimulated human peripheral whole blood using mouse Anti-LAMP2 antibody

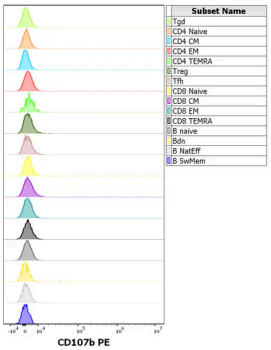
Separation of human CD107b positive CD203c positive basophils (red-filled) from CD107b negative lymphocytes (black-dashed) in flow cytometry analysis (surface staining) of anti-IgE stimulated human peripheral whole blood stained using ab326518 (concentration in sample 1.67 µg/ml).



Flow Cytometry - PE Anti-LAMP2 antibody [H4B4] (ab326518)

LAMP2 Flow Cytometry staining of anti-IgE stimulated human peripheral blood mononuclear cells using mouse Anti-LAMP2 antibody

Flow cytometry multicolor surface staining pattern of anti-IgE stimulated human peripheral blood mononuclear cells stained using anti-human CD203c (NP4D6) APC antibody (10 µl reagent / 100 µl of peripheral whole blood) and ab326518 (concentration in sample 1.67 µg/ml).

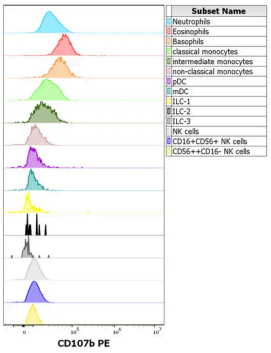


Flow Cytometry - PE Anti-LAMP2 antibody [H4B4] (ab326518)

LAMP2 Flow Cytometry staining of Suspension of blood leukocytes isolated from buffy coats using mouse Anti-LAMP2 antibody

Expression profiling on peripheral blood subsets using ab326518. Adaptive panel

HCDM CDMaps standardized procedures (Kuzilkova D et al. Front Immunol. 2022;13:827898) were used for cell isolation and surface staining of blood leukocytes, with the modification of staining protocol using cytometry test tubes.
Suspension of blood leukocytes isolated from buffy coats (2 x 10^6 cells) was added to the mixture of ab326518 (5 µg/ml in stained blood sample) and Monocyte Blocking Buffer, vortexed and incubated for 20 min. Next, optimized backbone antibody panel (HLDA Adaptive) was added to test tubes, vortexed and incubated for 20 min. The residual erythrocytes were lysed with 2 ml of 10X diluted EXCELLYSE Easy solution and incubated for 10 min. Finally, samples were centrifuged (670 g, 5 min.), supernatant removed and the cell pellet was resuspended in 200 µl of PBS for acquisition.

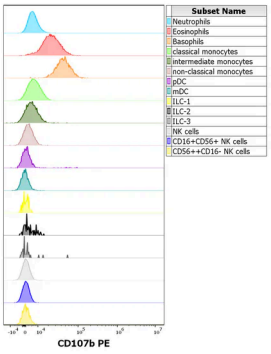


Flow Cytometry (Intracellular) - PE Anti-LAMP2 antibody [H4B4] (ab326518)

LAMP2 Flow Cytometry (Intracellular) staining of Suspension of blood leukocytes isolated from buffy coats using mouse Anti-LAMP2 antibody

Expression profiling on peripheral blood subsets using ab326518. Intracellular staining, innate panel

Analysis of the antibody staining profile was performed on blood leukocytes isolated from buffy coats and permeabilized using EXCELLYSE XPerm buffer set.
HCDM CDMaps standardized procedures (Kuzilkova D et al. Front Immunol. 2022;13:827898) were used for leukocyte isolation.
Suspension of blood leukocytes isolated from buffy coats (2 x 10^6cells) was added to the mixture of optimized backbone antibody panel (HLDA Innate) and Monocyte Blocking Buffer, vortexed and incubated for 20 min.
Next, EXCELLYSE XPerm buffer set was used for leukocytes permeabilization according to the instruction procedure.
ab326518 was used in concentration 5 µg/ml in stained blood sample (2 x 10^6 cells).



Flow Cytometry - PE Anti-LAMP2 antibody [H4B4] (ab326518)

LAMP2 Flow Cytometry staining of Suspension of blood leukocytes isolated from buffy coats using mouse Anti-LAMP2 antibody

Expression profiling on peripheral blood subsets using ab326518. Innate panel

HCDM CDMaps standardized procedures (Kuzilkova D et al. Front Immunol. 2022;13:827898) were used for cell isolation and surface staining of blood leukocytes, with the modification of staining protocol using cytometry test tubes.
Suspension of blood leukocytes isolated from buffy coats (2 x 10^6 cells) was added to the mixture of ab326518 (5 µg/ml in stained blood sample) and Monocyte Blocking Buffer, vortexed and incubated for 20 min. Next, optimized backbone antibody panel (HLDA Innate) was added to test tubes, vortexed and incubated for 20 min. The residual erythrocytes were lysed with 2 ml of 10X diluted EXCELLYSE Easy solution and incubated for 10 min. Finally, samples were centrifuged (670 g, 5 min.), supernatant removed and the cell pellet was resuspended in 200 µl of PBS for acquisition.

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