abcam

ab235118

Anti-CD38 antibody [HB-7]

Recombinant

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	HB-7
Purification technique	Affinity purification Protein A
Concentration	1.062 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1.12 µg/mL
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	5.6 µg/mL
Notes	-

Target data

See full target information CD38

Function

Multifunctional transmembrane glycoprotein able to exert enzymatic activities and also to mobilize calcium, to transduce signals, to adhere to hyaluronan and to other ligands. Synthesizes cyclic ADP-ribose (cADPR), a second messenger for glucose-induced insulin secretion (PubMed:7961800, PubMed:8253715). Synthesizes the Ca(2+) mobilizer nicotinate-adenine dinucleotide phosphate, NAADP(+), from 2'-phospho-cADPR and nicotinic acid, as well as from NADP(+) and nicotinic acid. At both pH 5.0 and pH 7.4 preferentially transforms 2'-phospho-cADPR into NAADP(+), while preferentially cleaving NADP(+) to cADPR and ADPRP rather than into NADDP(+) (PubMed:16690024). Has cADPR hydrolase activity (PubMed:7961800, PubMed:8253715). Functions also as a receptor that binds the ligand CD31 on endothelial cells, promoting lymphocyte activation, proliferation, and migration across the endothelial barrier (PubMed:9551996). Involved in the regulation of crucial dendritic cell functions acquired at the mature stage, such as CCL21-driven migration, survival, and Th1-polarizing activity (PubMed:16293598). In lamina propria T lymphocytes, CD38/CD31 cognate interactions initiate a multistep signaling pathway resulting in activation of LCK anf LAT, followed by cytokine release (PubMed:11259373).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Want a custom formulation?
This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com

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

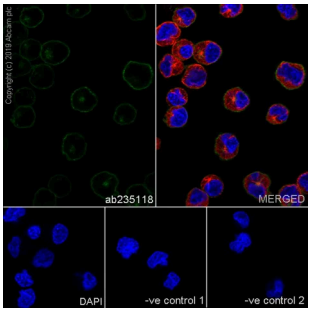
We do not recommend this combination. It is not covered by our product promise.

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.

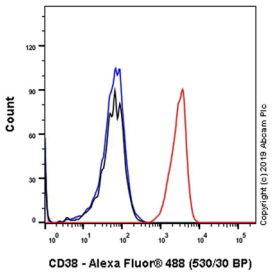
4 product images



Immunocytochemistry/ Immunofluorescence - Anti-CD38 antibody [HB-7] (ab235118)

CD38 Immunocytochemistry/ Immunofluorescence staining using mouse Anti-CD38 antibody

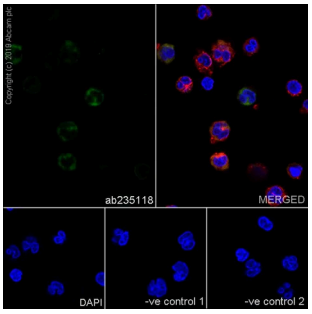
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized Raji (human Burkitt's lymphoma B lymphocyte) cells labeling CD38 with ab235118 at 5.6µg/ml, followed by ab150113 AlexaFluor®488 Goat anti-Mouse secondary at 1/1000 dilution (green). Confocal image showing cytoplasmic and membranous staining in Raji cell line. The nuclear counterstain is DAPI (blue).
Tubulin is detected with ab179504 Anti-beta IV Tubulin antibody - Microtubule Marker at a 1/200 dilution, followed by ab150080 AlexaFluor®594 Goat anti-Rabbit secondary at 1/1000 dilution (red).
The negative controls are as follows:
-ve control 1: ab235118 at 1/200 dilution, followed by ab150080 AlexaFluor®594 Goat anti-Rabbit secondary antibody at 1/1000 dilution.
-ve control 2: ab179504 at 1/200 dilution, followed by ab150113 AlexaFluor®488 Goat anti-Mouse secondary antibody at 1/1000 dilution.



Flow Cytometry - Anti-CD38 antibody [HB-7] (ab235118)

CD38 Flow Cytometry staining using mouse Anti-CD38 antibody

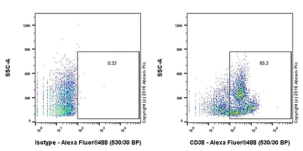
Flow cytometric analysis of Raji (Human Burkitt's lymphoma B lymphocyte) cell line labeling CD38 with ab235118 at 1.12µg/ml (red) compared with a Mouse IgG, monoclonal - Isotype Control (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat Anti-Mouse IgG (Alexa Fluor® 488) (ab150113) at 1/2000 dilution was used as the secondary antibody. Gated on viable cells.



Immunocytochemistry/ Immunofluorescence - Anti-CD38 antibody [HB-7] (ab235118)

CD38 Immunocytochemistry/ Immunofluorescence staining using mouse Anti-CD38 antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized human PBMC (human primary peripheral blood mononuclear cell) cells labeling CD38 with ab235118 at 5.6µg/ml, followed by ab150113 AlexaFluor®488 Goat anti-Mouse secondary at 1/1000 dilution (green). Confocal image showing cytoplasmic and membranous staining in subsets of human PBMC. The nuclear counterstain is DAPI (blue).
Tubulin is detected with ab179504 Anti-beta IV Tubulin antibody - Microtubule Marker at a 1/200 dilution, followed by ab150080 AlexaFluor®594 Goat anti-Rabbit secondary at 1/1000 dilution (red).
The negative controls are as follows:
-ve control 1: ab235118 at 1/200 dilution, followed by ab150080 AlexaFluor®594 Goat anti-Rabbit secondary antibody at 1/1000 dilution.
-ve control 2: ab179504 at 1/200 dilution, followed by ab150113 AlexaFluor®488 Goat anti-Mouse secondary antibody at 1/1000 dilution.



Flow Cytometry - Anti-CD38 antibody [HB-7] (ab235118)

CD38 Flow Cytometry staining using mouse Anti-CD38 antibody

Flow cytometric analysis of human peripheral blood mononuclear cell (PBMC) (right) labeling CD38 with ab235118 at 1.12µg/ml compared with Mouse monoclonal IgG Isotype Control (left).

Goat Anti-Mouse IgG (Alexa Fluor® 488) (ab150113) at 1/2000 dilution was used as the secondary antibody.
Gated on viable cells.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.