abcam

ab252804

# Anti-CD38 antibody [HB-7] - BSA and Azide free

Recombinant

## Key facts

| | |
|---|---|
| **Isotype** | IgG1 |
| **Host species** | Mouse |
| **Storage buffer** | pH: 7.2 - 7.4 Constituents: PBS |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | The exact immunogen used to generate this antibody is proprietary information. |
| **Carrier free** | Yes |
| **Clone number** | HB-7 |
| **Purification technique** | Affinity purification Protein A |
| **Concentration** | 1.01 mg/mL The concentration of this product may be batch-dependent<br>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 conditions** | +4°C |
| **Appropriate long-term storage conditions** | +4°C |
| **Storage information** | Do Not Freeze |

## Notes

ab252804 is the carrier-free version of ab235118.

**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

**Conjugation ready**
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

**Compatibility**
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

## 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**

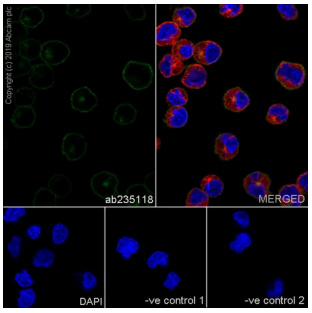
We do not recommend this combination. It is not covered by our product promise.

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



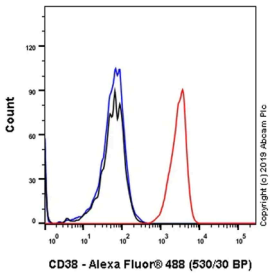

### Immunocytochemistry/ Immunofluorescence - Anti-CD38 antibody [HB-7] - BSA and Azide free (ab252804)

CD38 Immunocytochemistry/ Immunofluorescence staining using mouse Anti-CD38 antibody

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, Glycerol and sodium azide (ab235118).

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 1/100 dilution, 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.

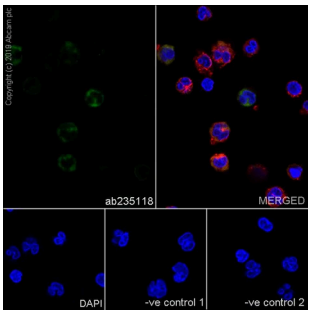



### Flow Cytometry - Anti-CD38 antibody [HB-7] - BSA and Azide free (ab252804)

CD38 Flow Cytometry staining using mouse Anti-CD38 antibody

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, Glycerol and sodium azide (ab235118).

Flow cytometric analysis of Raji (Human Burkitt's lymphoma B lymphocyte) cell line labeling CD38 with ab235118 at 1.12µg/ml dilution (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] - BSA and Azide free (ab252804)

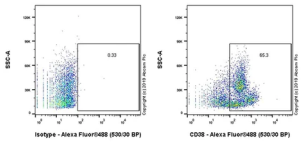
CD38 Immunocytochemistry/ Immunofluorescence staining using mouse Anti-CD38 antibody

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, Glycerol and sodium azide (ab235118).

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 1/100 dilution, 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).

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## Flow Cytometry - Anti-CD38 antibody [HB-7] - BSA and Azide free (ab252804)

CD38 Flow Cytometry staining using mouse Anti-CD38 antibody

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, Glycerol and sodium azide (ab235118).
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'.