abcam

Product datasheet

Anti-CD38 antibody [EPR4106] - BSA and Azide free ab226034

KO VALIDATED Recombinant RabMAb

2 Abreviews 10 Images

Overview

Product name	Anti-CD38 antibody [EPR4106] - BSA and Azide free
Description	Rabbit monoclonal [EPR4106] to CD38 - BSA and Azide free
Host species	Rabbit
Specificity	Not suitable for mouse and rat samples because antibody shows a non-specific cytoplasmic staining in almost all tested mouse and rat tissues.
Tested applications	**Suitable for:** WB, IHC-P, Flow Cyt **Unsuitable for:** ICC/IF
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Raji and Ramos cell lysates, Human lymph node lysate. IHC-P: Human endometrial adenocarcinoma, tonsil, lymph node, skeletal muscle and normal colon tissues. Flow Cyt: Raji cells.
General notes	ab226034 is the carrier-free version of **ab108403**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. 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. 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. 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 production

For more information **see here**.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

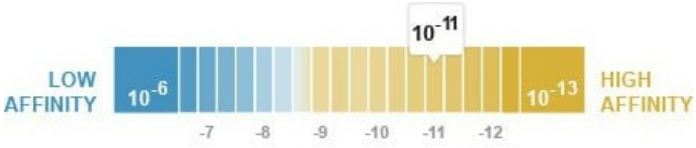
Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Properties

Form Liquid

Storage instructions Shipped at 4°C. Store at +4°C. Do Not Freeze.

Dissociation constant (K_D) $K_D = 1.40 \times 10^{-11}$ M



Learn more about K_D

Storage buffer pH: 7.20
Constituent: PBS

Carrier free Yes

Purity Protein A purified

Clonality Monoclonal

Clone number EPR4106

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab226034 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

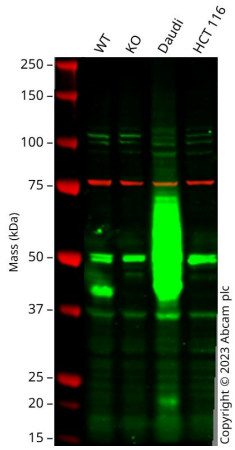
Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Detects a band of approximately 45 kDa (predicted molecular weight: 34 kDa).
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
Flow Cyt		Use at an assay dependent concentration. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Application notes Is unsuitable for ICC/IF.

Target

Function	Synthesizes cyclic ADP-ribose, a second messenger for glucose-induced insulin secretion. Also has cADPr hydrolase activity. Also moonlights as a receptor in cells of the immune system.
Tissue specificity	Expressed at high levels in pancreas, liver, kidney, brain, testis, ovary, placenta, malignant lymphoma and neuroblastoma.
Sequence similarities	Belongs to the ADP-ribosyl cyclase family.
Developmental stage	Preferentially expressed at both early and late stages of the B and T-cell maturation. It is also detected on erythroid and myeloid progenitors in bone marrow, where the level of surface expression was shown to decrease during differentiation of blast-forming unit E to colony-forming unit E.
Cellular localization	Membrane.
Form	There are 2 isoforms produced by alternative splicing.

Images



Western blot - Anti-CD38 antibody [EPR4106] - BSA and Azide free (ab226034)

All lanes : Anti-CD38 antibody [EPR4106] (**ab108403**) at 1/2000 dilution

Lane 1 : Wild-type A549 cell lysate
Lane 2 : CD38 knockout A549 cell lysate
Lane 3 : Daudi cell lysate
Lane 4 : HCT 116 cell lysate

Lysates/proteins at 20 µg per lane.

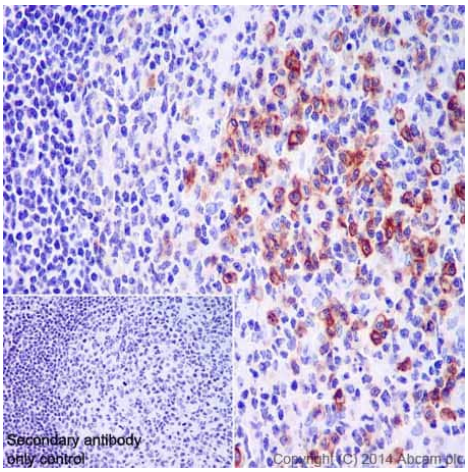
Performed under reducing conditions.

Predicted band size: 34 kDa
Observed band size: 42 kDa

This data was developed using the same antibody clone in a different buffer formulation containing PBS and sodium azide (**ab108403**).

Anti-CD38 antibody [EPR4106] staining at 1/2000 dilution, shown in green; Mouse anti-CANX [CANX/1543] (**ab238078**) loading control staining at 1/20000 dilution, shown in red. In Western blot, **ab108403** was shown to bind specifically to CD38. A band was observed at 42 kDa in wild-type A549 cell lysates with no signal observed at this size in CD38 knockout cell line. To generate this image, wild-type and CD38 knockout A549 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then

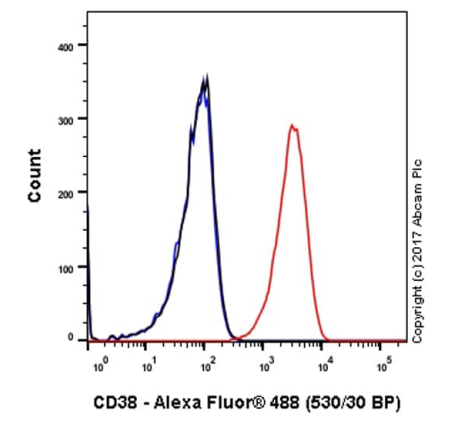
transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD38 antibody [EPR4106] - BSA and Azide free (ab226034)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human tonsil tissue labelling CD38 with purified **ab108403** at 1/500. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. **ab97051**, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.

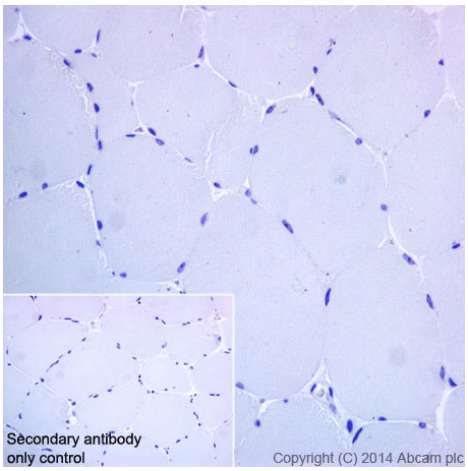
This data was developed using the same antibody clone in a different buffer formulation containing PBS and sodium azide (**ab108403**).



Flow Cytometry - Anti-CD38 antibody [EPR4106] - BSA and Azide free (ab226034)

Flow cytometry analysis of Raji (Human Burkitt's lymphoma B lymphocyte) cells labelling CD38 with **ab108403** at 1/900 dilution (1.03 µg/ml) (Red). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (**ab172730**) (Black). Unlabeled control - Unlabelled cells (Blue).

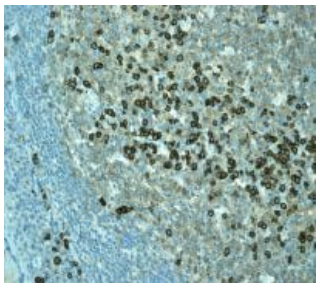
This data was developed using the same antibody clone in a different buffer formulation containing PBS and sodium azide (**ab108403**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD38 antibody [EPR4106] - BSA and Azide free (ab226034)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human skeletal muscle tissue labelling CD38 with purified **ab108403** at 1/500. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. **ab97051**, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.

This data was developed using the same antibody clone in a different buffer formulation containing PBS and sodium azide (**ab108403**).

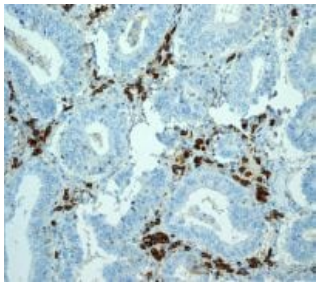


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD38 antibody [EPR4106] - BSA and Azide free (ab226034)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human tonsil tissue labelling CD38 with unpurified **ab108403** at a dilution of 1/100.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

This data was developed using the same antibody clone in a different buffer formulation containing PBS and sodium azide (**ab108403**).

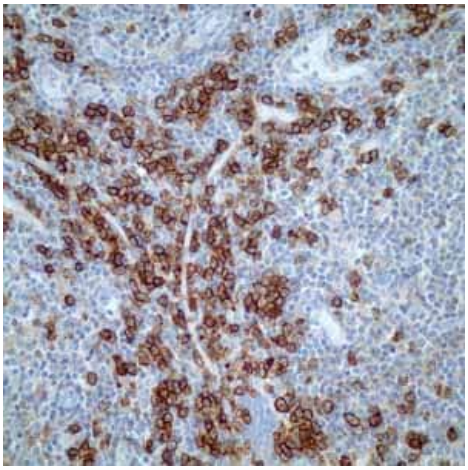


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD38 antibody [EPR4106] - BSA and Azide free (ab226034)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human endometrial adenocarcinoma tissue labelling CD38 with unpurified **ab108403** at a dilution of 1/100.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

This data was developed using the same antibody clone in a different buffer formulation containing PBS and sodium azide (**ab108403**).

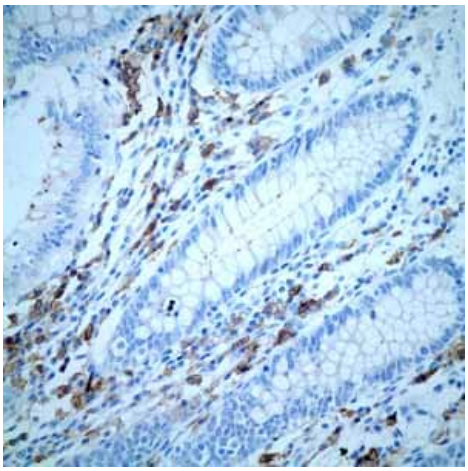


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD38 antibody [EPR4106] - BSA and Azide free (ab226034)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human lymph node tissue labelling CD38 with unpurified **ab108403**.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

This data was developed using the same antibody clone in a different buffer formulation containing PBS and sodium azide (**ab108403**).

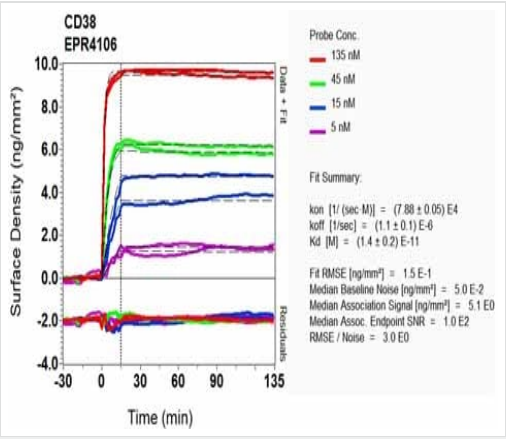


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD38 antibody [EPR4106] - BSA and Azide free (ab226034)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of normal human colon tissue labelling CD38 with unpurified **ab108403**.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

This data was developed using the same antibody clone in a different buffer formulation containing PBS and sodium azide (**ab108403**).



OI-RD Scanning - Anti-CD38 antibody [EPR4106] - BSA and Azide free (ab226034)

Equilibrium disassociation constant (K_D)

Learn more about K_D

Click here to learn more about K_D

This data was developed using the same antibody clone in a different buffer formulation containing PBS and sodium azide (**ab108403**).

Anti-CD38 antibody [EPR4106] - BSA and Azide free (ab226034)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors