

Product datasheet

Anti-CD38 antibody [EPR21079] α b216343

KO **VALIDATED** Recombinant RabMAb[®]

★★★★★ [2 Abreviews](#) [4 References](#) [9 Images](#)

Overview

Product name	Anti-CD38 antibody [EPR21079]
Description	Rabbit monoclonal [EPR21079] to CD38
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P
Species reactivity	Reacts with: Mouse
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: P388D1 whole cell lysate; Mouse spleen, lymph node, colon and thymus lysates. IHC-P: Mouse spleen, liver and kidney tissues.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: PBS, 40% Glycerol, 0.05% BSA</p>
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR21079
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab216343 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	★★★★★ (2)	1/1000. Detects a band of approximately 42 kDa (predicted molecular weight: 34 kDa).
IHC-P		1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

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.

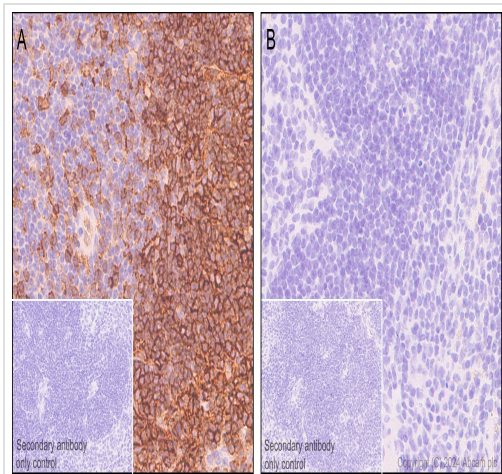
Cellular localization

Membrane.

Form

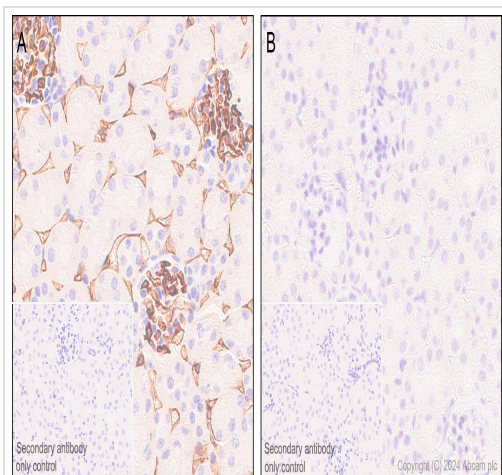
There are 2 isoforms produced by alternative splicing.

Images



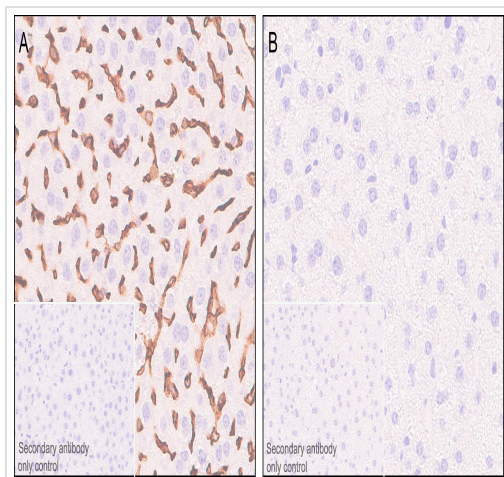
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD38 antibody [EPR21079] (ab216343)

Immunohistochemical analysis of paraffin-embedded (A) Spleen tissue from wild-type C57BL/6JGpt mice (B) Spleen tissue from CD38 knockout mice staining with ab216343 at 1/2000 dilution and ready-to-use Goat Anti-Rabbit IgG H&L (HRP) secondary. Counterstaining with hematoxylin. Heat mediated antigen retrieval was performed with Citrate buffer (pH 6.0, Epitope Retrieval Solution 1) for 20 mins. Positive staining on (A) Spleen tissue from wild-type C57BL/6JGpt mice and no staining on (B) Spleen tissue from CD38 knockout mice. The section was incubated with ab216343 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND™ RX instrument. The tissue samples were kindly provided by GemPharmatech. C57BL/6JGpt wildtype mice and Cd38-KO homozygous mice (Strain ID: T011481).



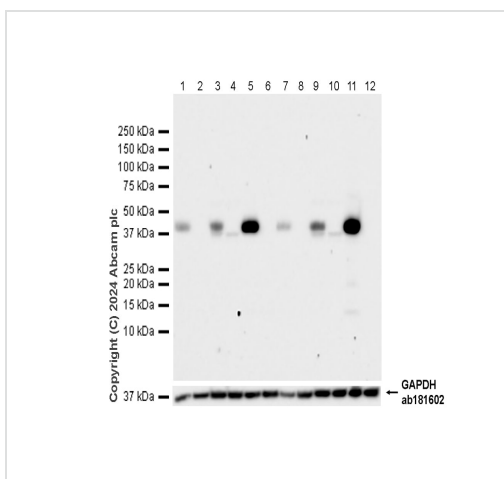
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD38 antibody [EPR21079] (ab216343)

Immunohistochemical analysis of paraffin-embedded (A) Kidney tissue from wild-type C57BL/6JGpt mice (B) Kidney tissue from CD38 knockout mice staining with ab216343 at 1/2000 dilution and ready-to-use Goat Anti-Rabbit IgG H&L (HRP) secondary. Counterstaining with hematoxylin. Heat mediated antigen retrieval was performed with Citrate buffer (pH 6.0, Epitope Retrieval Solution 1) for 20 mins. Positive staining on (A) Kidney tissue from wild-type C57BL/6JGpt mice and no staining on (B) Kidney tissue from CD38 knockout mice. The section was incubated with ab216343 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND™ RX instrument. The tissue samples were kindly provided by GemPharmatech. C57BL/6JGpt wildtype mice and Cd38-KO homozygous mice (Strain ID: T011481).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD38 antibody [EPR21079] (ab216343)

Immunohistochemical analysis of paraffin-embedded (A) Liver tissue from wild-type C57BL/6JGpt mice (B) Liver tissue from CD38 knockout mice staining with ab216343 at 1/2000 dilution and ready-to-use Goat Anti-Rabbit IgG H&L (HRP) secondary. Counterstaining with hematoxylin. Heat mediated antigen retrieval was performed with Citrate buffer (pH 6.0, Epitope Retrieval Solution 1) for 20 mins. Positive staining on (A) Liver tissue from wild-type C57BL/6JGpt mice and no staining on (B) Liver tissue from CD38 knockout mice. The section was incubated with ab216343 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND™ RX instrument. The tissue samples were kindly provided by GemPharmatech. C57BL/6JGpt wildtype mice and Cd38-KO homozygous mice (Strain ID: T011481).



Western blot - Anti-CD38 antibody [EPR21079] (ab216343)

All lanes : Anti-CD38 antibody [EPR21079] (ab216343) at 1/1000 dilution

- Lane 1 :** Wild-type mouse kidney tissue lysate (male)
- Lane 2 :** CD38 knockout mouse kidney tissue lysate (male)
- Lane 3 :** Wild-type mouse liver tissue lysate (male)
- Lane 4 :** CD38 knockout mouse liver tissue lysate (male)
- Lane 5 :** Wild-type mouse spleen tissue lysate (male)
- Lane 6 :** CD38 knockout spleen tissue lysate (male)
- Lane 7 :** Wild-type mouse kidney tissue lysate (female)
- Lane 8 :** CD38 knockout mouse kidney tissue lysate (female)
- Lane 9 :** Wild-type mouse liver tissue lysate (female)
- Lane 10 :** CD38 knockout mouse liver tissue lysate (female)
- Lane 11 :** Wild-type mouse spleen tissue lysate (female)
- Lane 12 :** CD38 knockout mouse spleen tissue lysate (female)

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

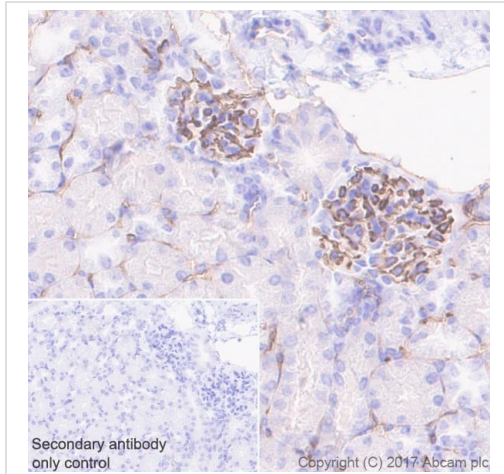
Predicted band size: 34 kDa

Observed band size: 42 kDa

Exposure time: 38 seconds

The tissue samples were kindly provided by GemPharmatech. C57BL/6JGpt wildtype mice and CD38-KO homozygous mice

(Strain ID: T011481).

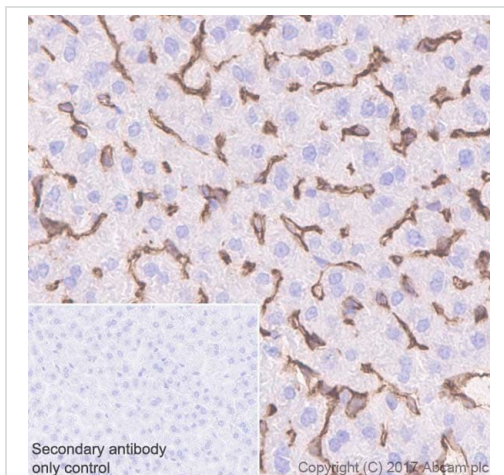


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD38 antibody [EPR21079] (ab216343)

Immunohistochemical analysis of paraffin-embedded mouse kidney tissue labeling CD38 with ab216343 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining in endothelial cells of mouse kidney (PMID: 25078456). Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

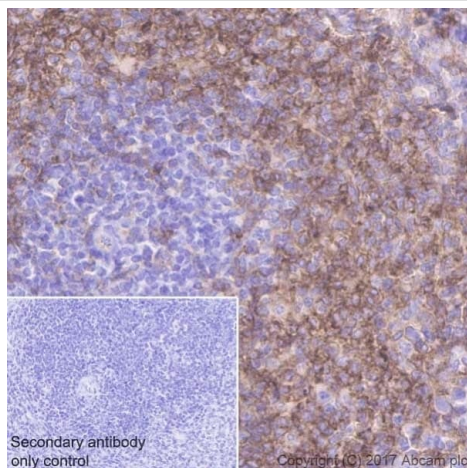


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD38 antibody [EPR21079] (ab216343)

Immunohistochemical analysis of paraffin-embedded mouse liver tissue labeling CD38 with ab216343 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining in the sinusoids of mouse liver (PMID: 17200192). Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

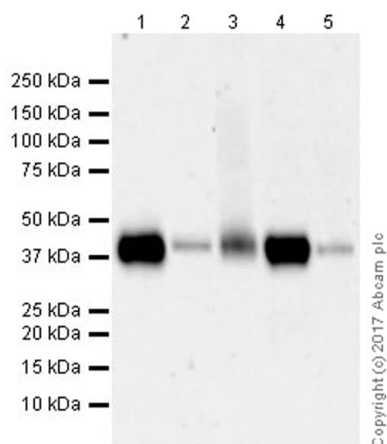


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD38 antibody [EPR21079] (ab216343)

Immunohistochemical analysis of paraffin-embedded mouse spleen tissue labeling CD38 with ab216343 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Membranous staining on mouse spleen (PMID: 10360965). Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Western blot - Anti-CD38 antibody [EPR21079] (ab216343)

All lanes : Anti-CD38 antibody [EPR21079] (ab216343) at 1/1000 dilution

Lane 1 : Mouse spleen lysate

Lane 2 : P388D1 (mouse lymphoma monocyte; macrophage cell line) whole cell lysate

Lane 3 : Mouse lymph node lysate

Lane 4 : Mouse colon lysate

Lane 5 : Mouse thymus lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Developed using the ECL technique.

Predicted band size: 34 kDa





Observed band size: 42 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDm/TBST.

The blot was developed on a BIO-RAD® ChemiDoc™ MP instrument. The observed molecular mass is consistent with the

Why choose a recombinant antibody?

 Research with confidence Consistent and reproducible results	 Long-term and scalable supply Recombinant technology
 Success from the first experiment Confirmed specificity	 Ethical standards compliant Animal-free production

Anti-CD38 antibody [EPR21079] (ab216343)

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

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