

Anti-Aquaporin 4 antibody [EPR7040] - BSA and Azide free ab248213

リコンビナント **RabMAb**

画像数 16

製品の概要

製品名	Anti-Aquaporin 4 antibody [EPR7040] - BSA and Azide free
製品の詳細	Rabbit monoclonal [EPR7040] to Aquaporin 4 - BSA and Azide free
由来種	Rabbit
アプリケーション	適用あり: IHC-P, IHC-Fr, WB
種交差性	交差種: Mouse, Rat, Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
ポジティブ・コントロール	WB: Mouse stomach, Mouse kidney, Rat stomach, Rat kidney and Mouse brain, Human stomach lysates (unboiled); IHC-P: Human cerebrum, Human stomach, Mouse cerebrum, Mouse cerebellum, Mouse stomach, Mouse kidney and Rat cerebrum, Rat stomach tissues. IHC-Fr: Rat stomach, Mouse stomach tissues.

特記事項

ab248213 is the carrier-free version of [ab128906](#).

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

製品の特性

製品の状態

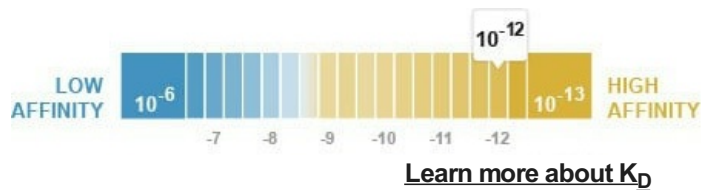
Liquid

保存方法

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

解離定数 (K_D 値)

$K_D = 2.60 \times 10^{-12}$ M



バッファー

pH: 7.2

Constituent: PBS

キャリア・フリー

はい

精製度

Protein A purified

ポリ/モノ

モノクローナル

クローン名

EPR7040

アイソタイプ

IgG

アプリケーション

The Abpromise guarantee

Abpromise保証は、 次のテスト済みアプリケーションにおけるab248213の使用に適用されます

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご確認ください。

アプリケーション	Abreviews	特記事項
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
IHC-Fr		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Predicted molecular weight: 35 kDa.

ターゲット情報

機能

Forms a water-specific channel. Osmoreceptor which regulates body water balance and mediates water flow within the central nervous system.

組織特異性

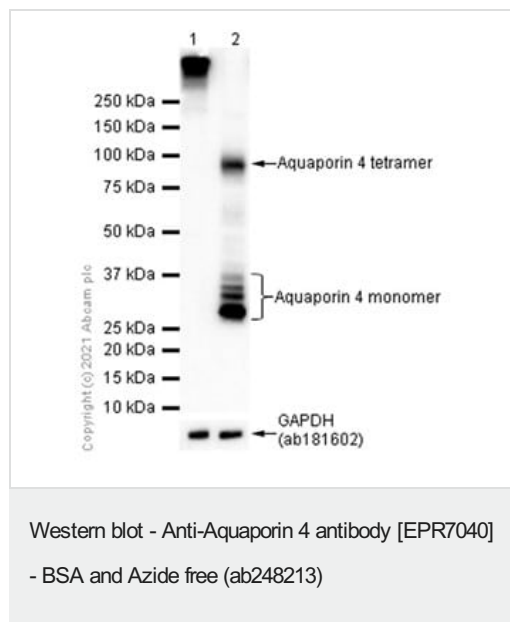
Brain - muscle >> heart, kidney, lung, and trachea.

配列類似性

Belongs to the MIP/aquaporin (TC 1.A.8) family.

ドメイン	Aquaporins contain two tandem repeats each containing three membrane-spanning domains and a pore-forming loop with the signature motif Asn-Pro-Ala (NPA).
翻訳後修飾	Phosphorylation by PKC at Ser-180 reduces conductance by 50%. Phosphorylation by PKG at Ser-111 in response to glutamats increases conductance by 40%.
細胞内局在	Membrane.

画像



All lanes : Anti-Aquaporin 4 antibody [EPR7040] ([ab128906](#)) at 1/1000 dilution

Lane 1 : Mouse brain lysate boiled

Lane 2 : Mouse brain lysate unboiled

Lysates/proteins at 15 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

Predicted band size: 35 kDa

Observed band size: 100,28 kDa

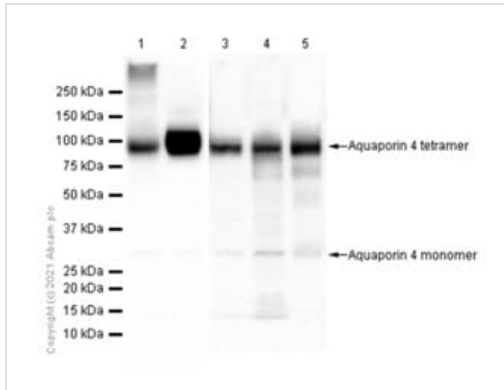
Exposure time: 60 seconds

This data was developed using [ab128906](#), the same antibody clone in a different buffer formulation.

Blocking and diluting buffer and concentration: 5% NFDm/TBST.

'Unboil method' will optimize WB result.

We recommend not to boil the samples after lysis to get desired WB results. The molecular weight is consistent with what has been described in the literature. Bands observed at 100kDa relate to a tetramer of AQP4 (PMID:18334967, 11742978, 17897643).



Western blot - Anti-Aquaporin 4 antibody [EPR7040]
- BSA and Azide free (ab248213)

All lanes : Anti-Aquaporin 4 antibody [EPR7040] (**ab128906**) at 1/1000 dilution

Lane 1 : Mouse kidney lysate unboiled

Lane 2 : Mouse brain lysate unboiled

Lane 3 : Rat stomach lysate unboiled

Lane 4 : Rat kidney lysate unboiled

Lane 5 : Human stomach lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Predicted band size: 35 kDa

Observed band size: 100,28 kDa

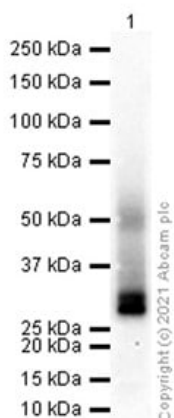
This data was developed using **ab128906**, the same antibody clone in a different buffer formulation.

Blocking and diluting buffer and concentration: 5% NFDM/TBST. '

Unboil method' will optimize WB result.

Lane1 & Lane2: 20 seconds. Lane3 & Lane4 & Lane5: 120 seconds.

The molecular weight is consistent with what has been described in the literature. Bands observed at 100kDa relate to a tetramer of AQP4 (PMID:18334967, 11742978, 17897643).



Western blot - Anti-Aquaporin 4 antibody [EPR7040]
- BSA and Azide free (ab248213)

Anti-Aquaporin 4 antibody [EPR7040] ([ab128906](#)) at 1/1000 dilution + Human stomach lysate unboiled at 15 µg

Secondary

Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Predicted band size: 35 kDa

Observed band size: 28,30 kDa

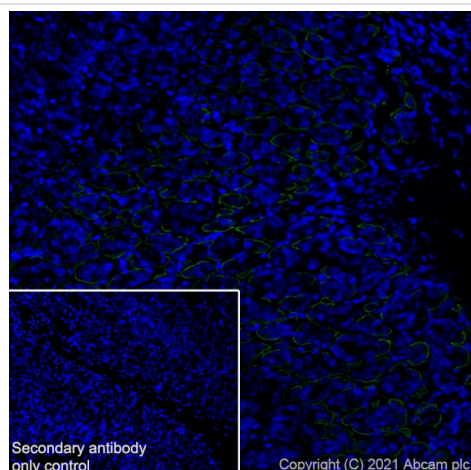
Exposure time: 120 seconds

This data was developed using [ab128906](#), the same antibody clone in a different buffer formulation.

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

'Unboil method' will optimize WB result.

The molecular weight is consistent with what has been described in the literature. (PMID: 22590566, 17897643).



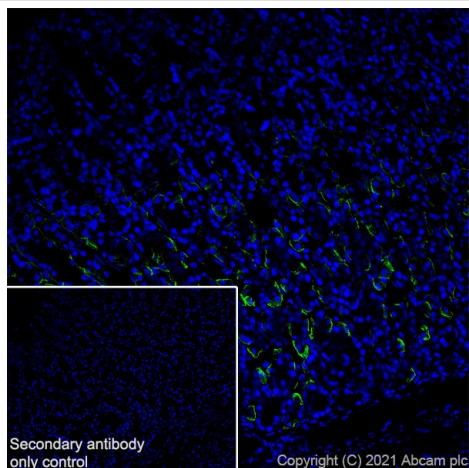
Immunohistochemistry (Frozen sections) - Anti-Aquaporin 4 antibody [EPR7040] - BSA and Azide free (ab248213)

This data was developed using [ab128906](#), the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse stomach (fresh) tissue labeling Aquaporin 4 with [ab128906](#) at 1/100 dilution followed by [ab150077](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 (2 µg/ml) dilution (Green). Positive staining on mouse stomach. is observed. The nuclear counterstain was DAPI (Blue).

Secondary antibody control: Secondary antibody is [ab150077](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1000 (2 µg/ml) dilution.

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).



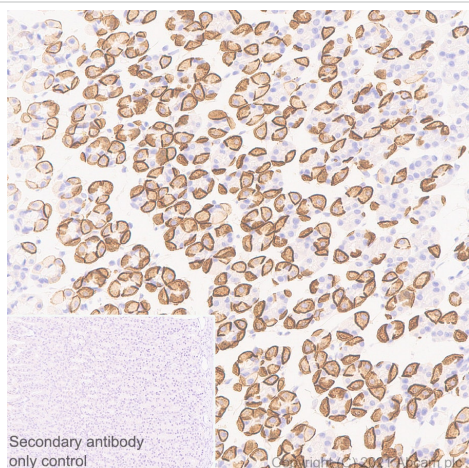
Immunohistochemistry (Frozen sections) - Anti-Aquaporin 4 antibody [EPR7040] - BSA and Azide free (ab248213)

This data was developed using [ab128906](#), the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Rat stomach (fresh) tissue labeling Aquaporin 4 with [ab128906](#) at 1/100 dilution followed by [ab150077](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 (2 µg/ml) dilution (Green). Positive staining on rat stomach. is observed. The nuclear counterstain was DAPI (Blue).

Secondary antibody control: Secondary antibody is [ab150077](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1000 (2 µg/ml) dilution.

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).



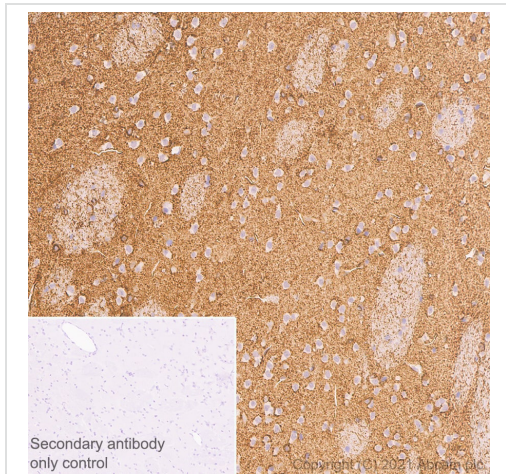
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aquaporin 4 antibody [EPR7040] - BSA and Azide free (ab248213)

This data was developed using [ab128906](#), the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Rat stomach tissue labeling Aquaporin 4 with [ab128906](#) at 1/2000 dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Positive staining on rat stomach. The section was incubated with [ab128906](#) for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution) for 20 mins



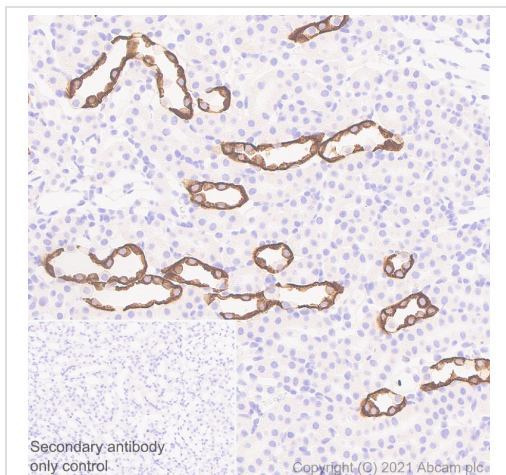
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aquaporin 4 antibody [EPR7040] - BSA and Azide free (ab248213)

This data was developed using [ab128906](#), the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Rat cerebrum tissue labeling Aquaporin 4 with [ab128906](#) at 1/2000 dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Cytoplasmic staining on rat cerebrum. The section was incubated with [ab128906](#) for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution) for 20 mins



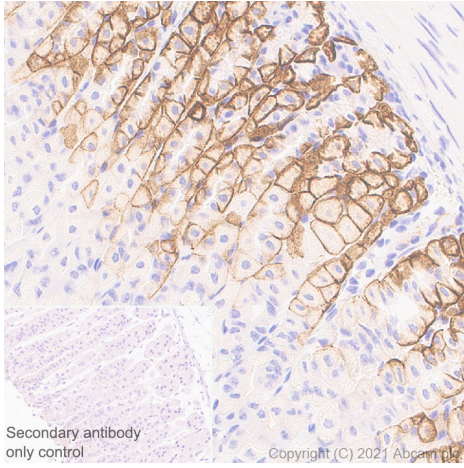
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aquaporin 4 antibody [EPR7040] - BSA and Azide free (ab248213)

This data was developed using [ab128906](#), the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Mouse kidney tissue labeling Aquaporin 4 with [ab128906](#) at 1/2000 dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Positive staining on mouse kidney. The section was incubated with [ab128906](#) for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution) for 20 mins



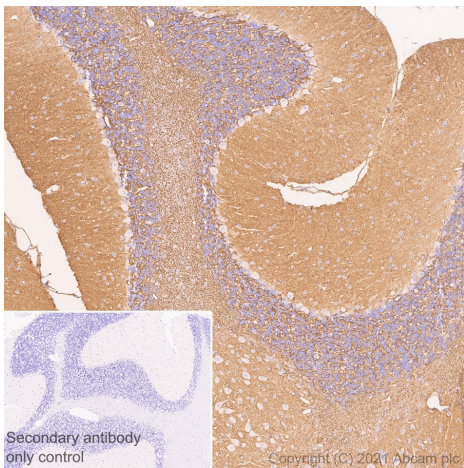
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aquaporin 4 antibody [EPR7040] - BSA and Azide free (ab248213)

This data was developed using [ab128906](#), the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Mouse stomach tissue labeling Aquaporin 4 with [ab128906](#) at 1/2000 dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Positive staining on mouse stomach. The section was incubated with [ab128906](#) for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution) for 20 mins



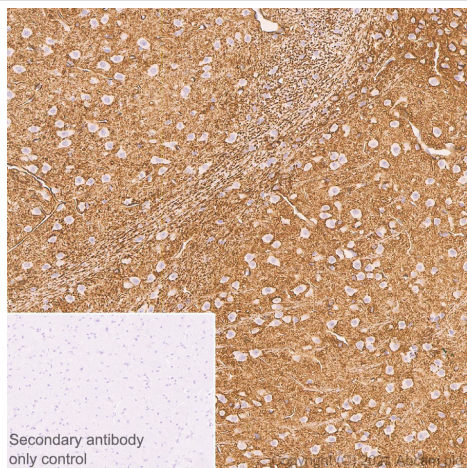
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aquaporin 4 antibody [EPR7040] - BSA and Azide free (ab248213)

This data was developed using [ab128906](#), the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Mouse cerebellum tissue labeling Aquaporin 4 with [ab128906](#) at 1/2000 dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Cytoplasmic staining on mouse cerebellum. The section was incubated with [ab128906](#) for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution) for 20 mins



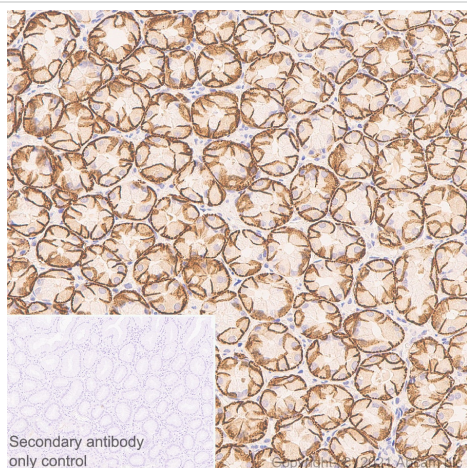
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aquaporin 4 antibody [EPR7040] - BSA and Azide free (ab248213)

This data was developed using [ab128906](#), the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Mouse cerebrum tissue labeling Aquaporin 4 with [ab128906](#) at 1/2000 dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Cytoplasmic staining on mouse cerebrum. The section was incubated with [ab128906](#) for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution) for 20 mins



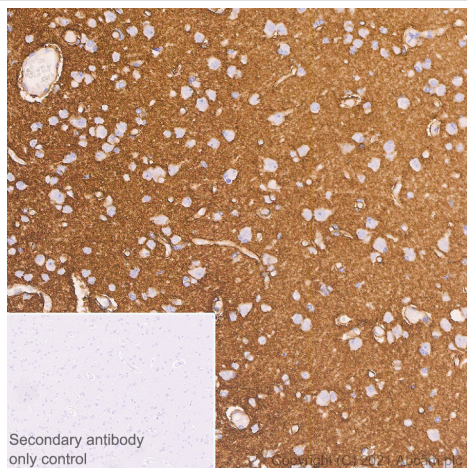
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aquaporin 4 antibody [EPR7040] - BSA and Azide free (ab248213)

This data was developed using [ab128906](#), the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Human stomach tissue labeling Aquaporin 4 with [ab128906](#) at 1/2000 dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Positive staining on human stomach. The section was incubated with [ab128906](#) for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution) for 20 mins



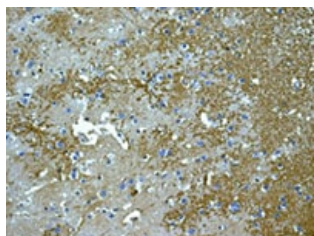
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aquaporin 4 antibody [EPR7040] - BSA and Azide free (ab248213)

This data was developed using [ab128906](#), the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Human cerebrum tissue labeling Aquaporin 4 with [ab128906](#) at 1/2000 dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Cytoplasmic staining on human cerebrum. The section was incubated with [ab128906](#) for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

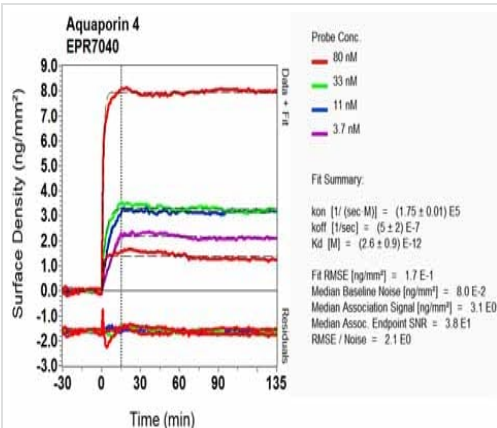
Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aquaporin 4 antibody [EPR7040] - BSA and Azide free (ab248213)

This data was developed using [ab128906](#), the same antibody clone in a different buffer formulation. [ab128906](#) at 1/100 dilution, staining Aquaporin 4 in paraffin-embedded Human brain tissue by Immunohistochemistry. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



OIR-D Scanning - Anti-Aquaporin 4 antibody [EPR7040] - BSA and Azide free (ab248213)

This data was developed using [ab128906](#), the same antibody clone in a different buffer formulation. Equilibrium disassociation constant (K_D)

Learn more about K_D

[Click here to learn more about \$K_D\$](#)

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-Aquaporin 4 antibody [EPR7040] - BSA and Azide free (ab248213)

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