

# Anti-Aquaporin 4 antibody [EPR7040] ab128906

リコンビナント RabMAb

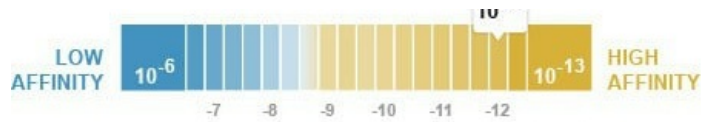
★★★★★ [1 Abreviews](#) [11 References](#) [画像数 16](#)

### 製品の概要

製品名	Anti-Aquaporin 4 antibody [EPR7040]
製品の詳細	Rabbit monoclonal [EPR7040] to Aquaporin 4
由来種	Rabbit
アプリケーション	<b>適用あり:</b> IHC-Fr, IHC-P, WB
種交差性	<b>交差種:</b> Mouse, Rat, Human
免疫原	Synthetic peptide within Human Aquaporin 4 aa 300 to the C-terminus. The exact sequence is proprietary. Database link: <a href="#">P55087</a>
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	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"><li>- High batch-to-batch consistency and reproducibility</li><li>- Improved sensitivity and specificity</li><li>- Long-term security of supply</li><li>- Animal-free production</li></ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p> <p>Mouse: We have preliminary internal testing data to indicate this antibody may not react with this species. Please contact us for more information.</p>

### 製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
解離定数 (K <sub>D</sub> 値)	K <sub>D</sub> = 2.60 x 10 <sup>-12</sup> M



[Learn more about K<sub>D</sub>](#)

バッファー	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
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

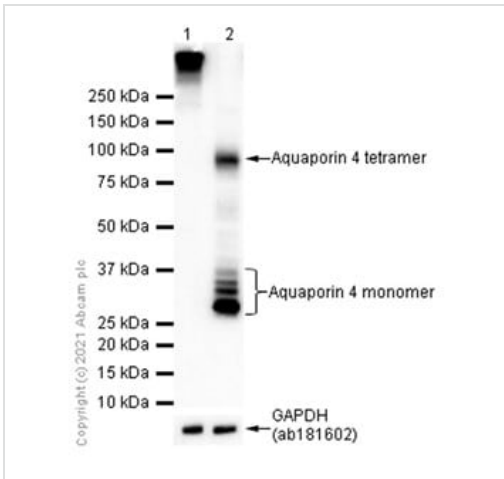
**The Abpromise guarantee**      Abpromise保証は、次のテスト済みアプリケーションにおけるab128906の使用に適用されません  
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
IHC-Fr		1/100.
IHC-P		1/2000. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
WB		1/1000. 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



Western blot - Anti-Aquaporin 4 antibody [EPR7040] (ab128906)

**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

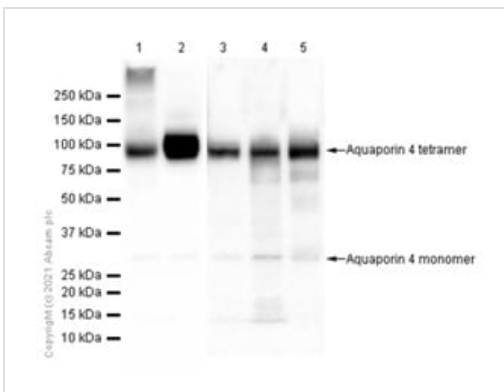
**Observed band size:** 100,28 kDa

**Exposure time:** 60 seconds

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

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] (ab128906)

**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

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

'Unboil method' will optimize WB result.

Exposure: 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] (ab128906)

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

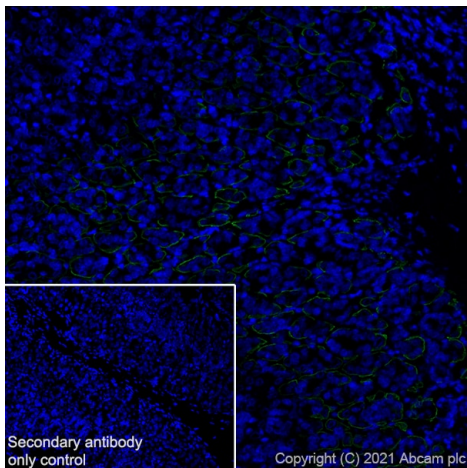
**Observed band size:** 28,30 kDa

**Exposure time:** 120 seconds

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

'Unboil method' will optimize WB result.

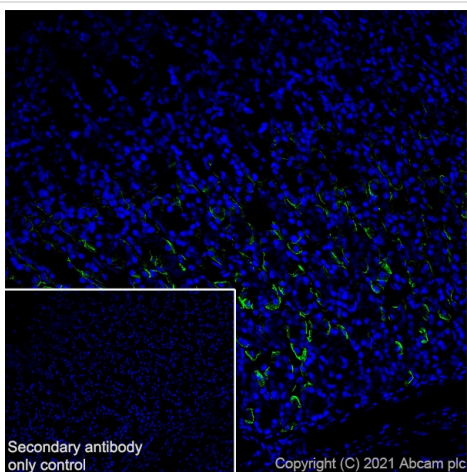
The molecular weight is consistent with what has been described in the literature. (PMID: 22590566, 17897643).



Immunohistochemistry (Frozen sections) - Anti-Aquaporin 4 antibody [EPR7040] (ab128906)

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).

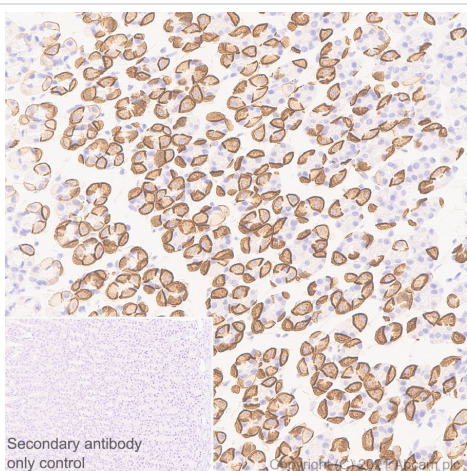
Secondary antibody control: Secondary antibody is **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1000 (2 µg/mL) dilution. Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).



Immunohistochemistry (Frozen sections) - Anti-Aquaporin 4 antibody [EPR7040] (ab128906)

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).

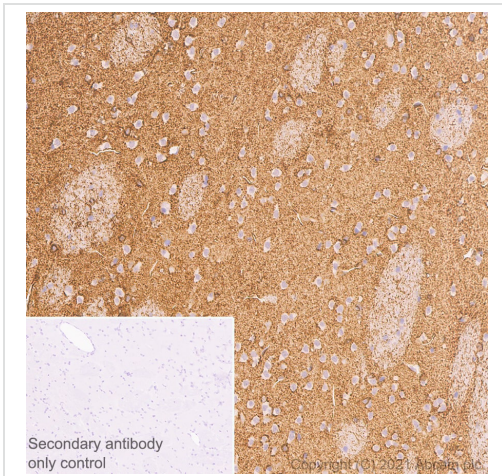


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aquaporin 4 antibody [EPR7040] (ab128906)

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) was used. 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 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

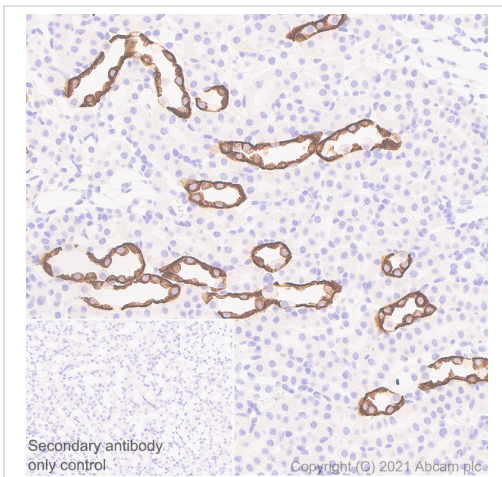


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aquaporin 4 antibody [EPR7040] (ab128906)

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) was used. 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

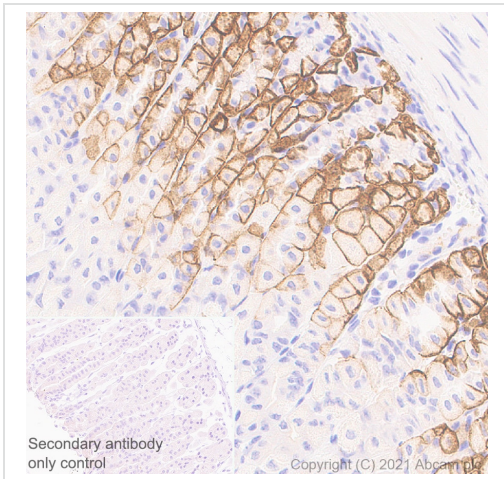


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aquaporin 4 antibody [EPR7040] (ab128906)

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) was used. 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

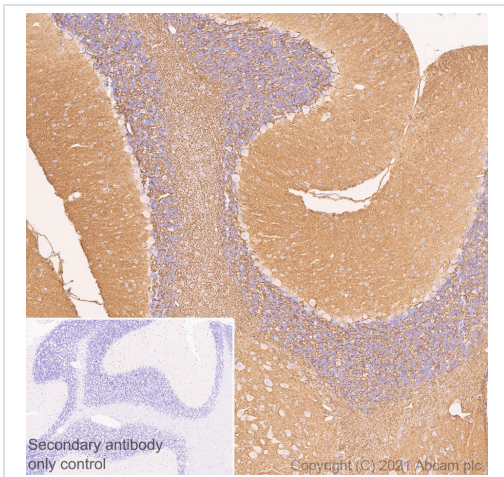


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aquaporin 4 antibody [EPR7040] (ab128906)

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) was used. 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.

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

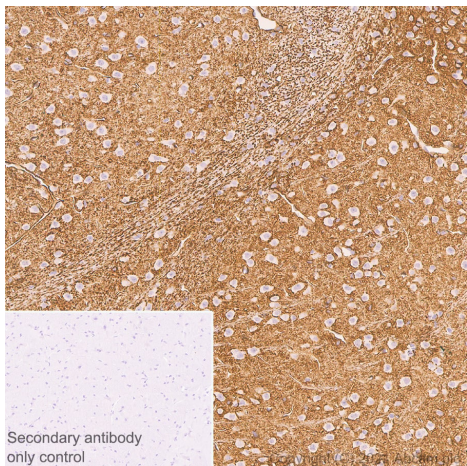


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aquaporin 4 antibody [EPR7040] (ab128906)

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) was used. 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

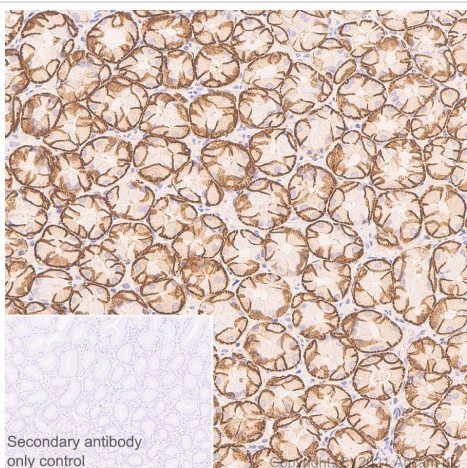


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aquaporin 4 antibody [EPR7040] (ab128906)

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) was used. 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



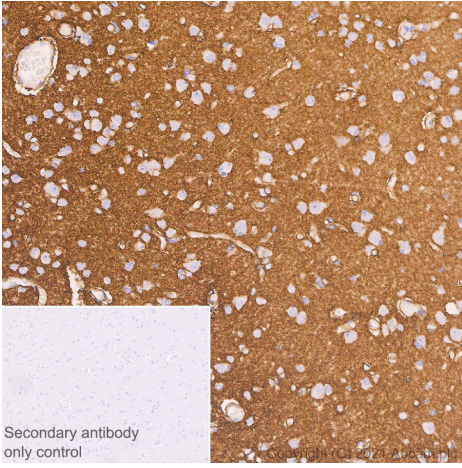
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aquaporin 4 antibody [EPR7040] (ab128906)

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) was used. 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



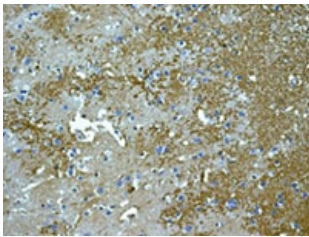


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aquaporin 4 antibody [EPR7040] (ab128906)

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) was used. 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).

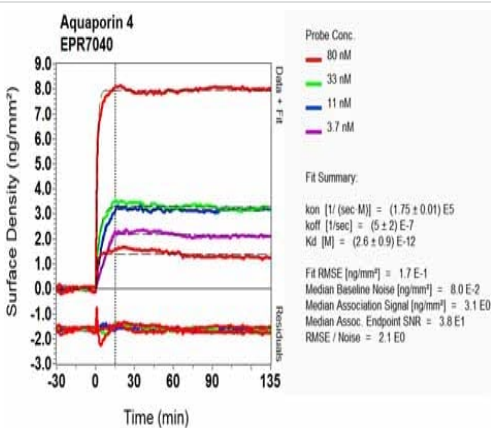
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aquaporin 4 antibody [EPR7040] (ab128906)

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] (ab128906)

Equilibrium dissociation constant ( $K_D$ )

Learn more about  $K_D$

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

Why choose a recombinant antibody?

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

Anti-Aquaporin 4 antibody [EPR7040] (ab128906)

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