

Datasheet for ABIN3043789
anti-Aquaporin 4 antibody (C-Term)

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Overview

Quantity:	100 µg
Target:	Aquaporin 4 (AQP4)
Binding Specificity:	AA 295-323, C-Term
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Aquaporin 4 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Purpose:	Rabbit IgG polyclonal antibody for Aquaporin-4(AQP4) detection. Tested with WB, IHC-P, IHC-F in Human,Mouse,Rat.
Immunogen:	A synthetic peptide corresponding to a sequence at the C-terminus of human Aquaporin 4 (295-323aa KPGVVHVIDVDRGEEKKGKDQSGEVLSSV), different from the related mouse sequence by two amino acids, and from the related rat sequence by three amino acids.
Sequence:	KPGVVHVIDV DRGEEKKGKD QSGEVLSSV
Isotype:	IgG
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	Rabbit IgG polyclonal antibody for Aquaporin-4(AQP4) detection. Tested with WB, IHC-P, IHC-F in Human,Mouse,Rat.

Product Details

Gene Name: aquaporin 4
Protein Name: Aquaporin-4

Purification: Immunogen affinity purified.

Target Details

Target: Aquaporin 4 (AQP4)

Alternative Name: AQP4 ([AQP4 Products](#))

Background: Aquaporin 4 is found in the basolateral cell membrane of principal collecting duct cells and provides a pathway for water to exit these cells. The gene of AQP4 is mapped to 18q11.2-q12.1. Similar to other aquaporins, the AQP4 gene is composed of 4 exons encoding 127, 55, 27, and 92 amino acids separated by introns of 0.8, 0.3, and 5.2 kb. Unlike other aquaporins, an alternative coding initiation sequence (designated exon 0) was located 2.7 kb upstream of exon 1. When spliced together, M1 and the subsequent 10 amino acids are encoded by exon 0, the next 11 amino acids and M23 are encoded by exon 1. AQP4 is expressed in astrocytes and is upregulated by direct insult to the central nervous system. And AQP4 is the predominant water channel in the brain and has an important role in brain water homeostasis. It is abundant in mammalian brain and is concentrated in astrocytic foot processes at the blood-brain barrier.

Synonyms: AQP 4 antibody|AQP-4 antibody|AQP4 antibody|AQP4_HUMAN antibody|Aquaporin type 4 antibody| Aquaporin-4 antibody|Aquaporin4 antibody|HMIWC 2 antibody|HMIWC2 antibody| Mercurial insensitive water channel antibody|Mercurial-insensitive water channel antibody|MGC22454 antibody|MIWC antibody|WCH 4 antibody|WCH4 antibody

Gene ID: 361

UniProt: [P55087](#)

Pathways: [Sensory Perception of Sound](#)

Application Details

Application Notes: WB: Concentration: 0.1-0.5 µg/mL, Tested Species: Mouse, Rat, Predicted Species: Human
IHC-P: Concentration: 0.5-1 µg/mL, Tested Species: Human, Mouse, Rat, Epitope Retrieval by Heat: Boiling the paraffin sections in 10 mM citrate buffer, pH 6.0, for 20 mins is required for the staining of formalin/paraffin sections.
IHC-F: Concentration: 0.5-1 µg/mL, Tested Species: Mouse, Rat, Predicted Species: Human
Notes: Tested Species: Species with positive results. Predicted Species: Species predicted to be

Application Details

fit for the product based on sequence similarities. Other applications have not been tested.
Optimal dilutions should be determined by end users.

Comment: Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P) and IHC(F).

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.

Concentration: 500 µg/mL

Buffer: Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na₂HPO₄, 0.05 mg Sodium azide.

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

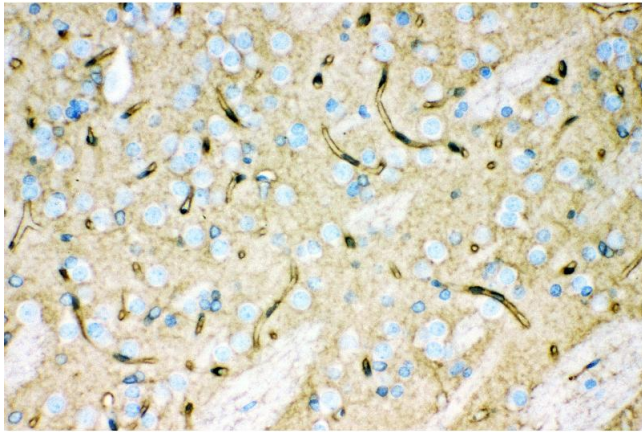
Handling Advice: Avoid repeated freezing and thawing.

Storage: 4 °C/-20 °C

Storage Comment: At -20°C for one year. After reconstitution, at 4°C for one month.
It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

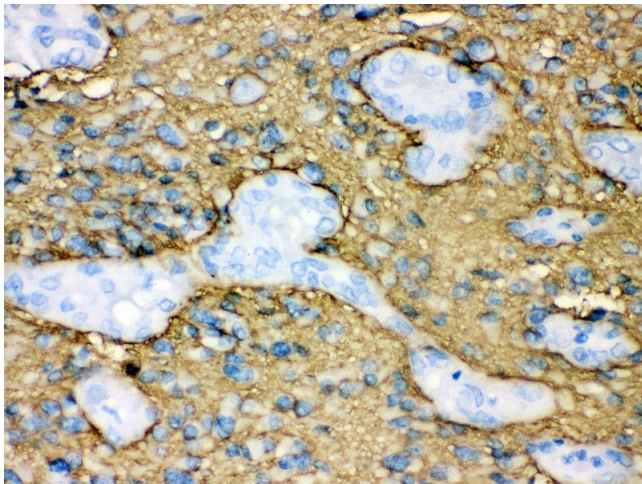
Publications

Product cited in: Yu, Chen, Jiang: "Administration of pigment epithelium-derived factor delivered by adeno-associated virus inhibits blood-retinal barrier breakdown in diabetic rats." in: **Molecular vision**, Vol. 16, pp. 2384-94, (2011) ([PubMed](#)).



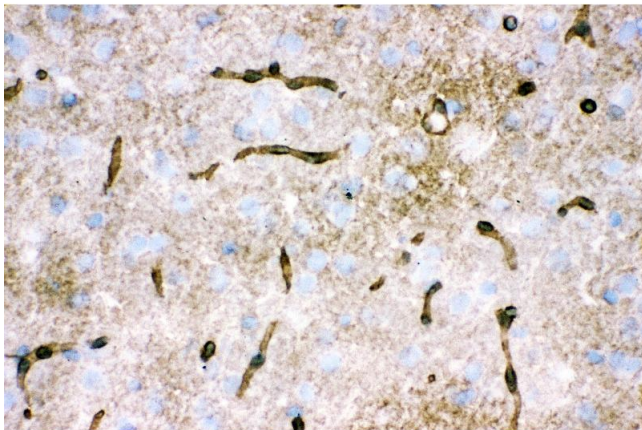
Immunohistochemistry

Image 1. Anti- Aquaporin 4 Picoband antibody, IHC(P)
IHC(P): Rat Brain Tissue



Immunohistochemistry

Image 2. Anti- Aquaporin 4 Picoband antibody, IHC(P)
IHC(P): Human Glioma Tissue



Immunohistochemistry

Image 3. Anti- Aquaporin 4 Picoband antibody, IHC(F)
IHC(F): Rat Brain Tissue

Please check the [product details page](#) for more images. Overall 7 images are available for ABIN3043789.