

## Anti-Aquaporin 4/AQP4 Antibody

Catalog Number: PA1220

### About AQP4

Aquaporin 4 is found in the basolateral cell membrane of principal collecting duct cells and provide 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. 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.

### Overview

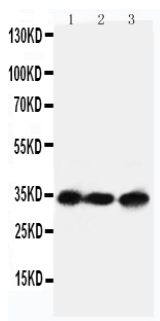
Product Name	Anti-Aquaporin 4/AQP4 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Aquaporin 4/AQP4 Antibody catalog # PA1220. Tested in WB applications. This antibody reacts with Human, Mouse, Rat.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05mg Thimerosal, 0.05mg NaN <sub>3</sub> .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P55087

### Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Aquaporin 4, identical to the related rat and mouse sequences.
Predicted Reactive Species	Hamster
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG

Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.1-0.5ug/ml, Human, Rat, Mouse</p>

## Anti-Aquaporin 4/AQP4 Antibody (PA1220) Images



Anti-Aquaporin 4 antibody, PA1220, Western blotting

Lane 1: Rat Heart Tissue Lysate

Lane 2: Rat Brain Tissue Lysate

Lane 3: COLO320 Cell Lysate

## 6 Publications Citing This Product

1. PubMed ID: 10.1590/s0102-865020180020000009, Effects of aquaporin 4 and inward rectifier potassium channel 4.1 on medullospinal edema after methylprednisolone treatment to suppress acute spinal cord injury in rats
2. PubMed ID: 29445328, Anzabi M, Ardalan M, Iversen NK, Rafati AH, Hansen B, ?stergaard L. Front Cell Neurosci. 2018 Jan 31;12:19. doi: 10.3389/fncel.2018.00019. eCollection 2018. Hippocampal Atrophy Following Subarachnoid Hemorrhage Correlates with Disruption of Astrocytes
3. PubMed ID: 26261083, Expression pattern of aquaporins in patients with primary nephrotic syndrome with edema

Visit [bosterbio.com/anti-aquaporin-4-antibody-pa1220-boster.html](https://www.bosterbio.com/anti-aquaporin-4-antibody-pa1220-boster.html) to see all 6 publications.

## Submit a product review to Biocompare.com

Submit a review of this product to Biocompare.com to receive a \$20 Amazon.com giftcard! Your reviews help your fellow scientists make the right decisions. Thank you for your contribution.



Anti-Aquaporin 4/AQP4 Antibody