

**AQP1 Antibody (C-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP17893b****Specification**

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**AQP1 Antibody (C-term) - Product Information**

Application	WB,E
Primary Accession	<a href="#">P29972</a>
Other Accession	<a href="#">P29975</a> , <a href="#">Q02013</a> , <a href="#">P47865</a> , <a href="#">NP_932766.1</a> , <a href="#">P56401</a>
Reactivity	Human, Mouse
Predicted	Bovine, Rat, Sheep
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	28526
Antigen Region	241-269

**AQP1 Antibody (C-term) - Additional Information****Gene ID** 358**Other Names**

Aquaporin-1, AQP-1, Aquaporin-CHIP, Urine water channel, Water channel protein for red blood cells and kidney proximal tubule, AQP1, CHIP28

**Target/Specificity**

This AQP1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 241-269 amino acids from the C-terminal region of human AQP1.

**Dilution**

WB~~1:1000

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

AQP1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**AQP1 Antibody (C-term) - Protein Information**

**Name** AQP1 ([HGNC:633](#))

**Function** Forms a water channel that facilitates the transport of water across cell membranes, playing a crucial role in water homeostasis in various tissues (PubMed:[1373524](#), PubMed:[23219802](#)). Could also be permeable to small solutes including hydrogen peroxide, glycerol and gases such as ammonia (NH<sub>3</sub>), nitric oxide (NO) and carbon dioxide (CO<sub>2</sub>) (PubMed:[16682607](#), PubMed:[17012249](#), PubMed:[19273840](#), PubMed:[33028705](#), PubMed:[8584435](#)). Recruited to the ankyrin-1 complex, a multiprotein complex of the erythrocyte membrane, it could be part of a CO<sub>2</sub> metabolon, linking facilitated diffusion of CO<sub>2</sub> across the membrane, anion exchange of Cl<sup>-</sup>/HCO<sub>3</sub><sup>-</sup> and interconversion of dissolved CO<sub>2</sub> and carbonic acid in the cytosol (PubMed:[17012249](#), PubMed:[35835865](#)). In vitro, it shows non-selective gated cation channel activity and may be permeable to cations like K<sup>+</sup> and Na<sup>+</sup> in vivo (PubMed:[36949749](#), PubMed:[8703053](#)).

#### Cellular Location

Cell membrane; Multi-pass membrane protein

#### Tissue Location

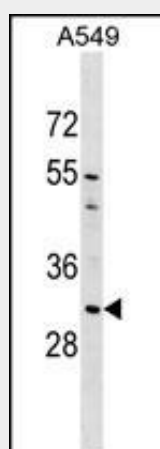
Detected in erythrocytes (at protein level). Expressed in a number of tissues including erythrocytes, renal tubules, retinal pigment epithelium, heart, lung, skeletal muscle, kidney and pancreas. Weakly expressed in brain, placenta and liver

### AQP1 Antibody (C-term) - Protocols

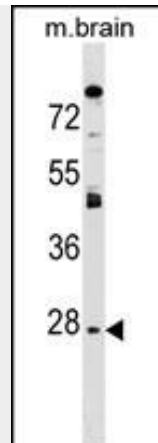
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### AQP1 Antibody (C-term) - Images



AQP1 Antibody (C-term) (Cat. #AP17893b) western blot analysis in A549 cell line lysates (35ug/lane). This demonstrates the AQP1 antibody detected the AQP1 protein (arrow).



AQP1 Antibody (C-term) (Cat. #AP17893b) western blot analysis in mouse brain tissue lysates (35ug/lane). This demonstrates the AQP1 antibody detected the AQP1 protein (arrow).

#### **AQP1 Antibody (C-term) - Background**

Aquaporins are a family of small integral membrane proteins related to the major intrinsic protein (MIP or AQP0). This gene encodes an aquaporin which functions as a molecular water channel protein. It is a homotetramer with 6 bilayer spanning domains and N-glycosylation sites. The protein physically resembles channel proteins and is abundant in erythrocytes and renal tubes. The gene encoding this aquaporin is a possible candidate for disorders involving imbalance in ocular fluid movement. Several transcript variants encoding different isoforms have been found for this gene.

#### **AQP1 Antibody (C-term) - References**

Chen, L.M., et al. Am. J. Physiol. Regul. Integr. Comp. Physiol. 299 (5), R1163-R1174 (2010) :  
Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)  
Shankardas, J., et al. Mol. Vis. 16, 1538-1548 (2010) :  
Halverson, G.R., et al. Immunohematology 26(1):22-26(2010)  
Sui, H., et al. Nature 414(6866):872-878(2001)