

Anti-Aquaporin 1 Antibody
Rabbit polyclonal antibody to Aquaporin 1
Catalog # AP59968**Specification**

Anti-Aquaporin 1 Antibody - Product Information

Application	WB
Primary Accession	P29972
Other Accession	Q02013
Reactivity	Human, Mouse, Rat, Monkey
Host	Rabbit
Clonality	Polyclonal
Calculated MW	28526

Anti-Aquaporin 1 Antibody - Additional Information**Gene ID** 358**Other Names**

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

Target/Specificity

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Aquaporin 1. The exact sequence is proprietary.

Dilution

WB~~WB (1/500 - 1/1000)

Format

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage

Store at -20 °C. Stable for 12 months from date of receipt

Anti-Aquaporin 1 Antibody - 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 (NH₃), nitric oxide (NO) and carbon dioxide (CO₂) (PubMed:16682607, PubMed:16682607).

[17012249](http://www.uniprot.org/citations/17012249), PubMed: [19273840](http://www.uniprot.org/citations/19273840), PubMed: [33028705](http://www.uniprot.org/citations/33028705), PubMed: [8584435](http://www.uniprot.org/citations/8584435)). Recruited to the ankyrin-1 complex, a multiprotein complex of the erythrocyte membrane, it could be part of a CO₂ metabolon, linking facilitated diffusion of CO₂ across the membrane, anion exchange of Cl⁻/HCO₃⁻ and interconversion of dissolved CO₂ and carbonic acid in the cytosol (PubMed: [17012249](http://www.uniprot.org/citations/17012249), PubMed: [35835865](http://www.uniprot.org/citations/35835865)). In vitro, it shows non-selective gated cation channel activity and may be permeable to cations like K⁺ and Na⁺ in vivo (PubMed: [36949749](http://www.uniprot.org/citations/36949749), PubMed: [8703053](http://www.uniprot.org/citations/8703053)).

Cellular Location

Cell membrane; Multi-pass membrane protein

Tissue Location

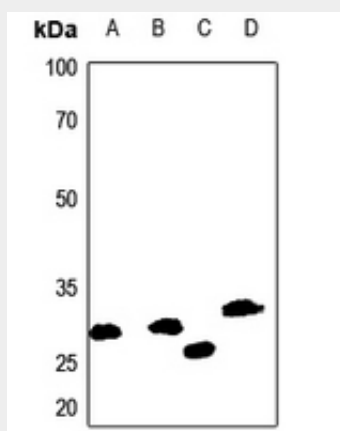
Detected in erythrocytes (at protein level). Expressed in a number of tissues including erythrocytes, renal tubules, retinal pigment epithelium, heart, lung, skeletal muscle, kidney and pancreas. Weakly expressed in brain, placenta and liver

Anti-Aquaporin 1 Antibody - 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](#)

Anti-Aquaporin 1 Antibody - Images



Western blot analysis of Aquaporin 1 expression in mouse kidney (A), mouse liver (B), rat kidney (C), rat liver (D) whole cell lysates.

Anti-Aquaporin 1 Antibody - Background

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