

# AQP1 Antibody

Rabbit mAb

Catalog # AP91197

## Product Information

<b>Application</b>	WB, IHC, IF, ICC, IHF
<b>Primary Accession</b>	<a href="#">P29972</a>
<b>Reactivity</b>	Rat, Human, Mouse
<b>Clonality</b>	Monoclonal
<b>Other Names</b>	Aquaporin1; Aquaporin 1; Aquaporin-1; Aquaporin-CHIP; Urine water channel; AQP1; CHIP28;
<b>Isotype</b>	Rabbit IgG
<b>Host</b>	Rabbit
<b>Calculated MW</b>	28526

## Additional Information

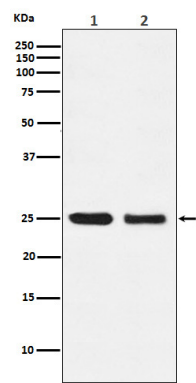
<b>Dilution</b>	WB 1:500~1:2000 IHC 1:50~1:200 ICC/IF 1:50~1:200
<b>Purification</b>	Affinity-chromatography
<b>Immunogen</b>	A synthesized peptide derived from human AQP1
<b>Description</b>	Forms a water-specific channel that provides the plasma membranes of red cells and kidney proximal tubules with high permeability to water, thereby permitting water to move in the direction of an osmotic gradient.
<b>Storage Condition and Buffer</b>	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

## Protein Information

<b>Name</b>	AQP1 ( <a href="#">HGNC:633</a> )
<b>Function</b>	Forms a water channel that facilitates the transport of water across cell membranes, playing a crucial role in water homeostasis in various tissues (PubMed: <a href="#">1373524</a> , PubMed: <a href="#">23219802</a> ). 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: <a href="#">16682607</a> , PubMed: <a href="#">17012249</a> , PubMed: <a href="#">19273840</a> , PubMed: <a href="#">33028705</a> , PubMed: <a href="#">8584435</a> ). 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: <a href="#">17012249</a> , PubMed: <a href="#">35835865</a> ). 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: <a href="#">36949749</a> , PubMed: <a href="#">8703053</a> ).
<b>Cellular Location</b>	Cell membrane; Multi-pass membrane protein

<b>Tissue Location</b>	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
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## Images



Western blot analysis of AQP1 expression in (1) Human fetal kidney lysate; (2) Human fetal lung lysate.

Image not found : 202311/AP91197-IHC.jpg	Immunohistochemical analysis of paraffin-embedded human breast, using AQP1 Antibody.
Image not found : 202311/AP91197-wb6.jpg	Celecoxib protects hyperoxia-induced lung injury via NF-κB and AQP1. -Frontiers in pediatrics

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.