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# Aquaporin 1 Rabbit mAb

Catalog # AP75096

## Product Information

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|---|---|
| **Application** | WB, IHC-P, FC |
| **Primary Accession** | P29972 |
| **Reactivity** | Rat, Human, Mouse |
| **Host** | Rabbit |
| **Clonality** | Monoclonal Antibody |
| **Isotype** | IgG |
| **Conjugate** | Unconjugated |
| **Purification** | Affinity Purified |
| **Calculated MW** | 28526 |

## Additional Information

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| **Gene ID** | 358 |
| **Other Names** | AQP1 |
| **Dilution** | WB~~1:1000-1:5000 IHC-P~~N/A FC~~1:200-1:2000 |
| **Format** | Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA. |
| **Storage** | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles. |

## Protein Information

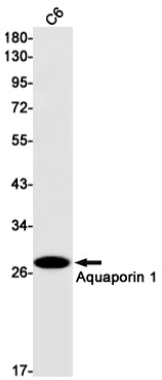
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|---|---|
| **Name** | AQP1 ( HGNC:633) |
| **Function** | Forms a water channel that facilitates the transport of water across cell membranes, playing a crucial role in water homeostasis in various tissues (PubMed:1373524, PubMed:23219802). Could also be permeable to small solutes including hydrogen peroxide, glycerol and gases such as amonnia (NH3), nitric oxide (NO) and carbon dioxide (CO2) (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 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, PubMed: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, PubMed:8703053). |
| **Cellular Location** | Cell membrane; Multi-pass membrane protein |

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| **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 |

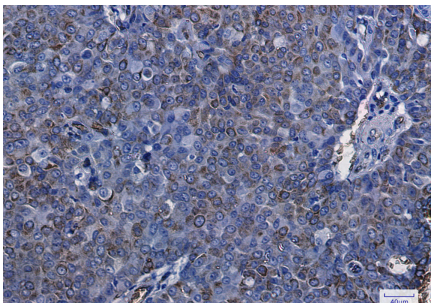
## Background

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.

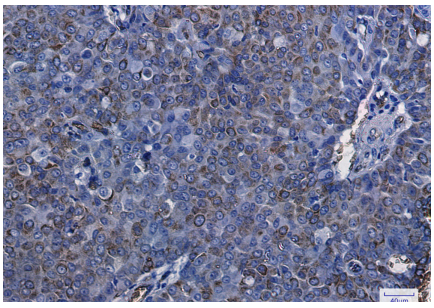
## Images

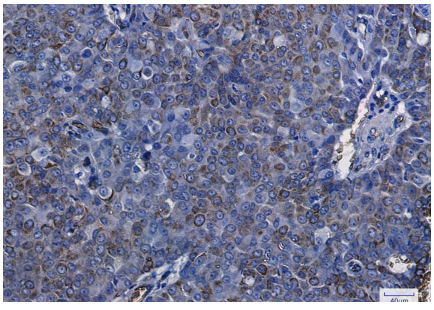



Western blot analysis of Aquaporin 1 in C6 lysates using Aquaporin 1 antibody.



Immunohistochemistry analysis of paraffin-embedded Human breast cancer using Aquaporin 1 antibody.High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.





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