

Aquaporin 1 Rabbit mAb

Catalog # AP75096

Product Information

| | |
|--------------------------|------------------------|
| 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

| | |
|--------------------|---|
| 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

| | |
|--------------------------|---|
| 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 ₃), nitric oxide (NO) and carbon dioxide (CO ₂) (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 ₂ metabolon, linking facilitated diffusion of CO ₂ across the membrane, anion exchange of Cl ⁽⁻⁾ /HCO ₃ ⁽⁻⁾ and interconversion of dissolved CO ₂ 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 |

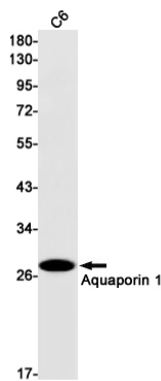
Tissue Location

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

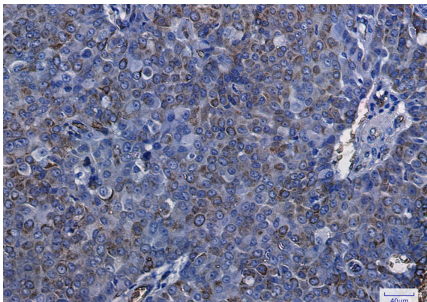
Background

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.

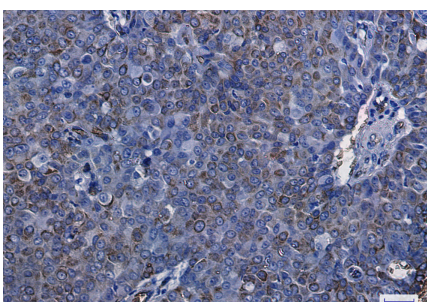
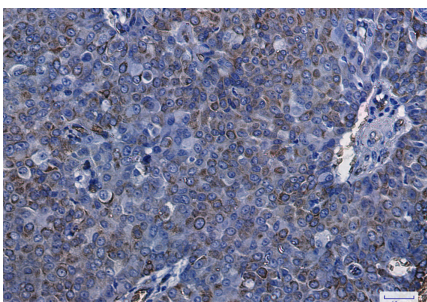
Images



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.



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