

Anti-AQP1 Rabbit Monoclonal Antibody
Catalog # ABO13536**Specification**

Anti-AQP1 Rabbit Monoclonal Antibody - Product Information

Application	WB, IHC, IF, ICC
Primary Accession	P29972
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid

Description

Anti-AQP1 Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF applications. This antibody reacts with Human, Mouse, Rat.

Anti-AQP1 Rabbit Monoclonal Antibody - 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 (http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=633 target="_blank">HGNC:633), CHIP28

Calculated MW

28526 MW KDa

Application Details

WB 1:500-1:2000
IHC 1:50-1:200
ICC/IF 1:50-1:200

Subcellular Localization

Cell membrane ; Multi-pass membrane protein.

Tissue Specificity

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..

Contents

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen

A synthesized peptide derived from human AQP1

Purification

Affinity-chromatography

Storage

Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Anti-AQP1 Rabbit Monoclonal 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: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

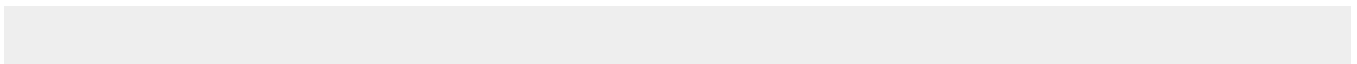
Tissue Location

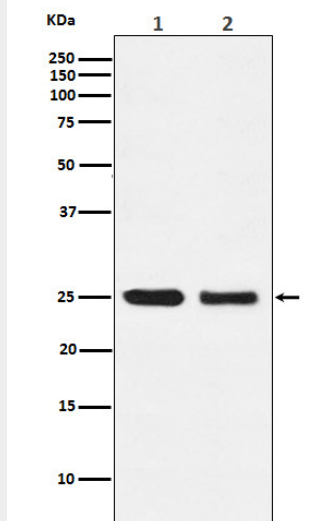
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Anti-AQP1 Rabbit Monoclonal Antibody - Protocols

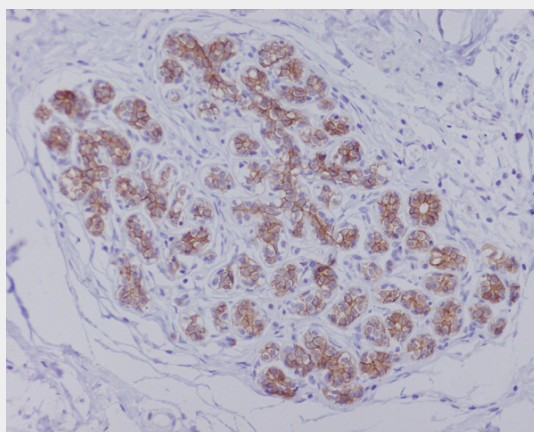
Provided below are standard protocols that you may find useful for product applications.

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

Anti-AQP1 Rabbit Monoclonal Antibody - Images



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



Immunohistochemical analysis of paraffin-embedded human breast, using AQP1 Antibody.