

DATASHEET

Aquaporin 1 Rabbit Polyclonal Antibody

CAT. NO. APA08536

KEY FEATURES

Target	Aquaporin 1	Source / Host	Rabbit
Reactivity	Human, Mouse, Rat, Monkey	Clonality	Polyclonal
Applications	WB, IHC, IF/ICC	Conjugation	Unconjugated
Form / Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.		Storage at -20°C

BACKGROUND

Forms a water channel that facilitates the transport of water across cell membranes, playing a crucial role in water homeostasis in various tissues. Could also be permeable to small solutes including hydrogen peroxide, glycerol and gases such as ammonia (NH₃), nitric oxide (NO) and carbon dioxide (CO₂). 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. In vitro, it shows non-selective gated cation channel activity and may be permeable to cations like K⁽⁺⁾ and Na⁽⁺⁾ in vivo.

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IHC	1:50 - 1:100
IF/ICC	1:50 - 1:200

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

Description	Rabbit polyclonal antibody to Aquaporin 1
Specificity	Recognizes endogenous levels of Aquaporin 1 protein.
Antibody Type	Primary antibody
Immunogen	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Aquaporin 1. The exact sequence is proprietary.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 28 kD; Observed: 28 kD
Form/Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative Names	CHIP28; Aquaporin-1; AQP-1; Aquaporin-CHIP; Urine water channel; Water channel protein for red blood cells and kidney proximal tubule
Gene Symbol	AQP1
Entrez Gene	358(Human); 11826(Mouse); 25240(Rat)
SwissProt	P29972(Human); Q02013(Mouse); P29975(Rat)

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

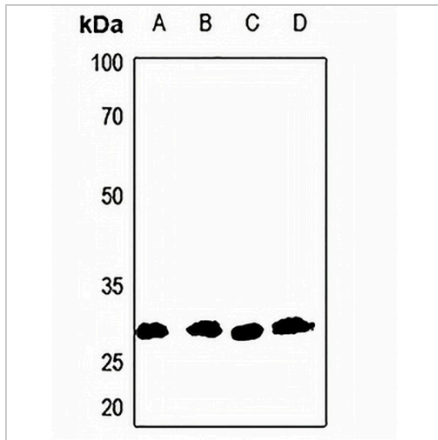
*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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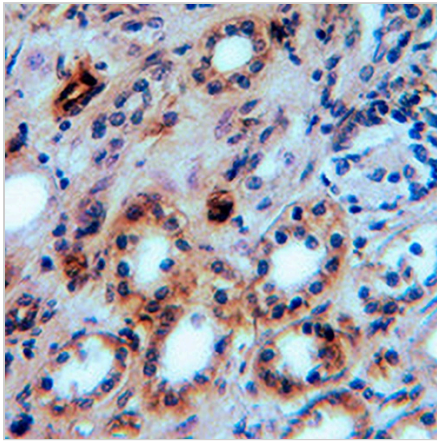
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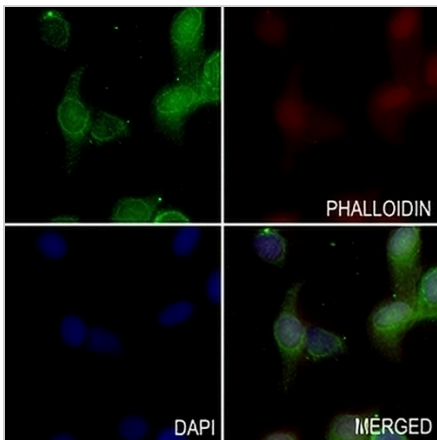
DATA



Western blot analysis of Aquaporin 1 expression in mouse kidney (A), mouse liver (B), rat kidney (C), rat liver (D) whole cell lysates. (Predicted band size: 28 kD; Observed band size: 28 kD)



Immunohistochemical analysis of Aquaporin 1 staining in human kidney cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of Aquaporin 1 staining in A549 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a AREX® Fluor 488 -conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AREX® Fluor 594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.