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KD-Validated Anti-Aquaporin 1 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI2334

Product Information

Application	WB, FC, ICC
Primary Accession	P29972
Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	23GB 1850
Calculated MW	28526
Gene Name	AQP1
Aliases	AQP1; Aquaporin 1 (Colton Blood Group); CHIP28; Aquaporin 1 (Channel-Forming Integral Protein, 28kDa, CO Blood Group); Water Channel Protein For Red Blood Cells And Kidney Proximal Tubule; Urine Water Channel; Aquaporin-CHIP; Aquaporin-1; CO; Aquaporin 1 (Channel-Forming Integral Protein, 28kDa); Channel-Like Integral Membrane Protein, 28-KDa; Aquaporin 1, Colton Blood Group Antigen; Colton Blood Group Antigen; Bloodgroup CO Protein; Colton Blood Group; Aquaporin 1; AQP-CHIP; AQP-1
Immunogen	A synthesized peptide derived from human AQP1

Additional Information

Gene ID	358
Other Names	Aquaporin-1, AQP-1, Aquaporin-CHIP, Channel-like integral membrane protein of 28 kDa, Urine water channel, AQP1 (HGNC:633)

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 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
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

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