10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-Aquaporin 1 Antibody

Rabbit polyclonal antibody to Aquaporin 1
Catalog # AP59968

Product Information

Application	WB
Primary Accession	P29972
Other Accession	Q02013
Reactivity	Human, Mouse, Rat, Monkey
Host	Rabbit
Clonality	Polyclonal
Calculated MW	28526

Additional Information

Gene ID	358
Other Names	CHIP28; Aquaporin-1; AQP-1; Aquaporin-CHIP; Urine water channel; Water channel protein for red blood cells and kidney proximal tubule
Target/Specificity	Recognizes endogenous levels of Aquaporin 1 protein.
Dilution	WB~~WB (1/500 - 1/1000)
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

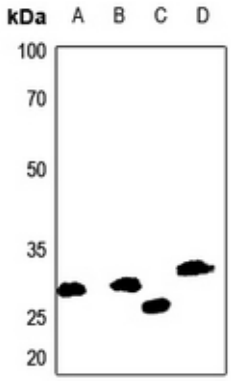
Name	AQP1 (HGNC:633)
Function	Forms a water channel that facilitates the transport of water across cell membranes, playing a crucial role in water homeostasis in various tissues (PubMed:1373524, PubMed:23219802). Could also be permeable to small solutes including hydrogen peroxide, glycerol and gases 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

Background

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Aquaporin 1. The exact sequence is proprietary.

Images



Western blot analysis of Aquaporin 1 expression in mouse kidney (A), mouse liver (B), rat kidney (C), rat liver (D) whole cell lysates.