OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for TA328656

Aquaporin 1 (AQP1) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)KVWTSGQVEEYDLDADDIN corresponding to amino acid residues 242-260 of human AQP1. Intracellular, C-terminus.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.025% NaN3.
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	aquaporin 1 (Colton blood group)
Database Link:	NP_932766 Entrez Gene 11826 MouseEntrez Gene 25240 RatEntrez Gene 358 Human P29972

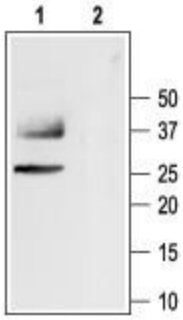
View online »

Background: Aquaporin 1 (AQP-1) belongs to a family of membrane proteins that allow passage of water and certain other solutes through biological membranes. The family is composed of 13 members (AQP-0 to AQP-12). The aquaporins can be divided into two functional groups based on their permability characteristics: the aquaporins that are only permeated by water and the aquaglyceroporins that are permeated by water and other small solutes such as glycerol. AQP-1 together with AQP-2, AQP-4 and AQP-5 belongs to the first group. Little is known about the function of the two newest members, AQP-11 and AQP-12. The proteins present a conserved structure of six transmembrane domains with intracellular N- and C-termini. The functional channel is a tetramer but each subunit has a separate pore and therefore the functional channel unit, contains four pores. AQP-1 is widely expressed in several organs with prominent expression found in kidney, lung, red blood cells intestine and brain. Studies with mice lacking AQP-1 show that the channel has a critical role in urine concentration. In addition, AQP-1 expression in tumor cells was shown to contribute to enhanced tumor spread and metastatic potential.

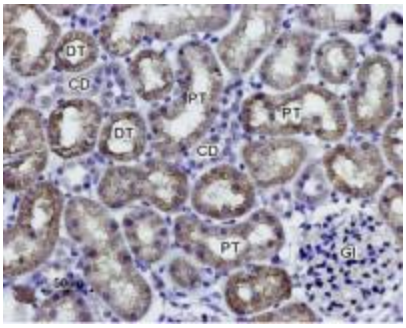
Synonyms: AQP-CHIP; CHIP28; CO

Protein Families: Druggable Genome, Ion Channels: Other, Transmembrane

Product images:



Western blot analysis of rat kidney membranes: 1. Anti-Aquaporin 1 antibody, (1:400). 2. Anti-Aquaporin 1 antibody, preincubated with the control peptide antigen.



Expression of Aquaporin 1 in rat kidney. Immunohistochemical staining of paraffin-embedded rat kidney sections using Anti-Aquaporin 1 antibody, (1:100). AQP1 staining (brown) is present in both distal (DT) and proximal (PT) convoluted tubules in the renal cortex. Note that a weak staining is also present in collecting ducts (CD) while glomeruli (Gl) are negative. Hematoxilin is used as the counterstain.