

Anti-Aquaporin 3 Antibody

Catalog # AP50990

Product Information

Application	WB, IHC
Primary Accession	Q92482
Reactivity	Human, Mouse, Rat, Zebrafish, Pig, Bovine, Sheep, Mk
Host	Rabbit
Clonality	Polyclonal
Calculated MW	31544

Additional Information

Gene ID	360
Other Names	Aquaporin-3; AQP-3; Aquaglyceroporin-3
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Aquaporin 3. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	AQP3 {ECO:0000303 PubMed:7558005, ECO:0000312 HGNC:HGNC:636}
Function	Aquaglyceroporins form homotetrameric transmembrane channels, with each monomer independently mediating glycerol and water transport across the plasma membrane along their osmotic gradient (PubMed: 12239222 , PubMed: 30420639). Could also be permeable to urea (By similarity). Also participates in cell permeability to H2O2 and H2O2- mediated signaling (PubMed: 20724658). In skin, transports glycerol to the epidermis and stratum corneum, where it maintains hydration, elasticity, and supports lipid biosynthesis for barrier repair (By similarity). In kidney, contributes to the reabsorption of water, helping the body maintain proper fluid balance (By similarity).
Cellular Location	Cell membrane; Multi-pass membrane protein {ECO:0000250 UniProtKB:O14520}. Basolateral cell membrane {ECO:0000250 UniProtKB:P47862}; Multi-pass membrane protein {ECO:0000250 UniProtKB:O14520}

Tissue Location

Widely expressed in epithelial cells of kidney (collecting ducts) and airways, in keratinocytes, immature dendritic cells and erythrocytes. Isoform 2 is not detectable in erythrocytes at the protein level

References

Ishibashi K.,et al.Genomics 27:352-354(1995).

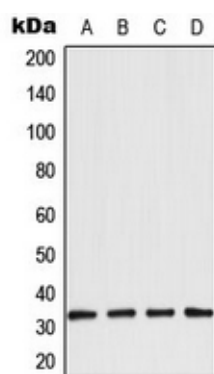
Ishibashi K.,et al.Submitted (OCT-1996) to the EMBL/GenBank/DDBJ databases.

Roudier N.,et al.J. Biol. Chem. 277:45854-45859(2002).

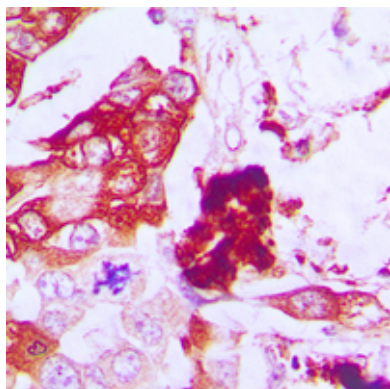
Halleck A.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.

Kalnine N.,et al.Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.

Images



Western blot analysis of Aquaporin 3 expression in LOVO (A), A431 (B), NIH3T3 (C), rat kidney (D) whole cell lysates. (Predicted band size: 31 kD; Observed band size: 32 kD)



Immunohistochemical analysis of Aquaporin 3 staining in human lung 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.

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