

AQP3 Rabbit pAb

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Catalog # AP52297

Product Information

Primary Accession	Q8R2N1
Reactivity	Human
Predicted	Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	31568
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from mouse AQP3
Epitope Specificity	201-292/292
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Membrane; Multi-pass membrane protein.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes the water channel protein aquaporin 3. Aquaporins are a family of small integral membrane proteins related to the major intrinsic protein, also known as aquaporin 0. Aquaporin 3 is localized at the basal lateral membranes of collecting duct cells in the kidney. In addition to its water channel function, aquaporin 3 has been found to facilitate the transport of nonionic small solutes such as urea and glycerol, but to a smaller degree. It has been suggested that water channels can be functionally heterogeneous and possess water and solute permeation mechanisms. [provided by RefSeq, Aug 2011]

Additional Information

Gene ID	11828
Other Names	Aquaporin-3, AQP-3, Aquaglyceroporin-3, Aqp3 {ECO:0000303 PubMed:12771381, ECO:0000312 MGI:MGI:1333777}
Dilution	Flow-Cyt=2ug/Test
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	Aqp3 {ECO:0000303 PubMed:12771381, ECO:0000312 MGI:MGI:1333777}
Function	Aquaglyceroporins form homotetrameric transmembrane channels, with each monomer independently mediating glycerol and water transport across the plasma membrane along their osmotic gradient (PubMed: 11880378 , PubMed: 12771381 , PubMed: 17429015 , PubMed: 19468303). Could also be permeable to urea (By similarity). Also participates in cell permeability to H2O2 and H2O2-mediated signaling (By similarity). In skin, transports glycerol to the epidermis and stratum corneum, where it maintains hydration, elasticity, and supports lipid biosynthesis for barrier repair (PubMed: 11880378 , PubMed: 12771381). In kidney, contributes to the reabsorption of water, helping the body maintain proper fluid balance (PubMed: 10737773).
Cellular Location	Cell membrane {ECO:0000250 UniProtKB:Q92482}; Multi-pass membrane protein {ECO:0000250 UniProtKB:O14520}. Basolateral cell membrane; Multi-pass membrane protein {ECO:0000250 UniProtKB:O14520}
Tissue Location	Detected in principal cells in collecting ducts in kidney medulla (at protein level) (PubMed:16641094). Renal medulla and colon. Predominantly in the inner medulla. Expressed in basal layer of epidermal keratinocytes.

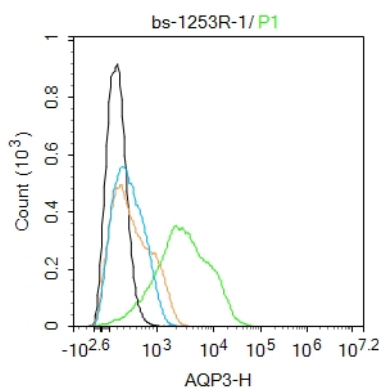
Background

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References

Hara M.,et al.Proc. Natl. Acad. Sci. U.S.A. 100:7360-7365(2003).
Carninci P.,et al.Science 309:1559-1563(2005).
Church D.M.,et al.PLoS Biol. 7:E1000112-E1000112(2009).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.
Kishida K.,et al.J. Biol. Chem. 275:20896-20902(2000).

Images



Blank control(black line):A431.
Primary Antibody (green line): Rabbit Anti-AQP3 antibody (AP52297)
Dilution:1ug/Test;
Secondary Antibody(white blue line): Goat anti-rabbit IgG-AF488
Dilution: 0.5ug/Test.
Isotype control(orange line): Normal Rabbit IgG
Protocol
The cells were incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.