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Anti-Aquaporin 5 Antibody

Catalog # ABO10607

Product Information

Application	WB, IHC-P
Primary Accession	Q9WTY4
Host	Rabbit
Reactivity	Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Aquaporin-5(AQP5) detection. Tested with WB, IHC-P in Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	11830
Other Names	Aquaporin-5, AQP-5, Aqp5
Calculated MW	28274
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Rat, Mouse, By Heat Western blot, 0.1-0.5 □g/ml, Rat, Mouse
Subcellular Localization	Membrane; Multi-pass membrane protein.
Source	Eukaryota
Protein Name	Aquaporin-5(AQP-5)
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of mouse AQP5(246-265aa EEDWEDHREERKKTIELTAH), identical to the related rat sequence.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

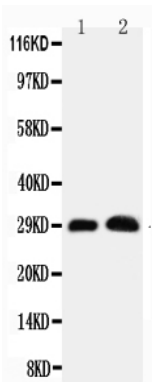
Protein Information

Name	Aqp5 {ECO:0000312|MGI:MGI:106215}
Function	Aquaporins form homotetrameric transmembrane channels, with each monomer independently mediating water transport across the plasma membrane along its osmotic gradient (By similarity). Plays an important role in fluid secretion in salivary glands (PubMed:10400615, PubMed:16571723, PubMed:18027168). Required for TRPV4 activation by hypotonicity. Together with TRPV4, controls regulatory volume decrease in salivary epithelial cells (PubMed:16571723). Seems to play a redundant role in water transport in the eye, lung and in sweat glands (PubMed:10619865, PubMed:12042359, PubMed:18027168).
Cellular Location	Apical cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P55064}. Cell membrane {ECO:0000250|UniProtKB:P55064}; Multi-pass membrane protein {ECO:0000250|UniProtKB:P55064}. Cytoplasmic vesicle membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P55064}. Note=Hypotonicity increases location at the cell membrane. Phosphorylation decreases location at the cell membrane. {ECO:0000250|UniProtKB:P55064}
Tissue Location	Detected at the luminal membrane of secretory epithelial cells in hindpaw sweat glands (PubMed:12042359, PubMed:23473857). Detected in acinar cells in salivary glands, in duct cells in lacrimal glands and in lung (at protein level) (PubMed:10337625, PubMed:10400615, PubMed:10619865, PubMed:16571723, PubMed:18027168). Detected in lung, parotid, submandibular, sublingual, and lacrimal gland tissues (PubMed:10337625)

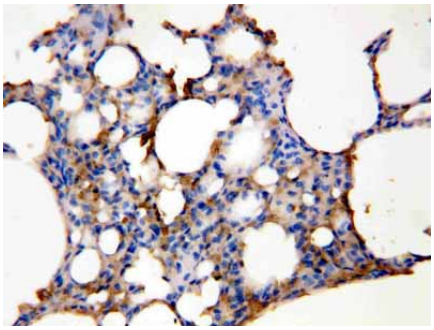
Background

Aquaporin 5, also known as AQP5, is a water channel protein. The aquaporins(AQPs) are a family of more than 10 homologous water transporting proteins expressed in many mammalian epithelia and endothelia. At least five AQPs are expressed in the eye: AQP0(MIP) in lens fiber, AQP1 in cornea endothelium, ciliary and lens epithelia and trabecular meshwork, AQP3 in conjunctiva, AQP4 in ciliary epithelium and retinal M □¼ller cells, and AQP5 in corneal and lacrimal gland epithelia. Among the seven human aquaporins cloned to date(AQPs 0-6), genes encoding the four most closely related aquaporins(AQP0, AQP2, AQP5, and AQP6) have been mapped to chromosome band 12q13, suggesting an aquaporin family gene cluster at this locus. Aquaporin 5 plays a role in the generation of saliva, tears and pulmonary secretions.

Images



Anti-Aquaporin 5 antibody, ABO10607, Western blottingWorking concentration: 0.5 □¼g/mlLane 1: Rat Lung Tissue LysateLane 2: Rat Testis Tissue Lysate



Anti-Aquaporin 5 antibody, ABO10607, IHC(P)IHC(P): Rat Lung Tissue LysateWorking concentration: 1 □¼g/ml

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