

Anti-Aquaporin 5 Antibody
Catalog # ABO10871**Specification**

Anti-Aquaporin 5 Antibody - Product Information

| | |
|-------------------|------------------------|
| Application | WB |
| Primary Accession | P55064 |
| Host | Rabbit |
| Reactivity | Human |
| Clonality | Polyclonal |
| Format | Lyophilized |

Description

Rabbit IgG polyclonal antibody for Aquaporin-5(AQP5) detection. Tested with WB in Human.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Aquaporin 5 Antibody - Additional Information

Gene ID 362

Other Names

Aquaporin-5, AQP-5, AQP5

Calculated MW

28292 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization

Membrane; Multi-pass membrane protein.

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 human Aquaporin 5(246-265aa DEDWEEQREERKKTMELTTR).

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, 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.

Anti-Aquaporin 5 Antibody - Protein Information**Name** AQP5**Function**

Forms a water-specific channel (PubMed: [8621489](http://www.uniprot.org/citations/8621489), PubMed: [18768791](http://www.uniprot.org/citations/18768791)). Plays an important role in fluid secretion in salivary glands (By similarity). Required for TRPV4 activation by hypotonicity. Together with TRPV4, controls regulatory volume decrease in salivary epithelial cells (PubMed: [16571723](http://www.uniprot.org/citations/16571723)). Seems to play a redundant role in water transport in the eye, lung and in sweat glands (By similarity).

Cellular Location

Apical cell membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. Cytoplasmic vesicle membrane; Multi-pass membrane protein Note=Hypotonicity increases location at the cell membrane Phosphorylation decreases location at the cell membrane

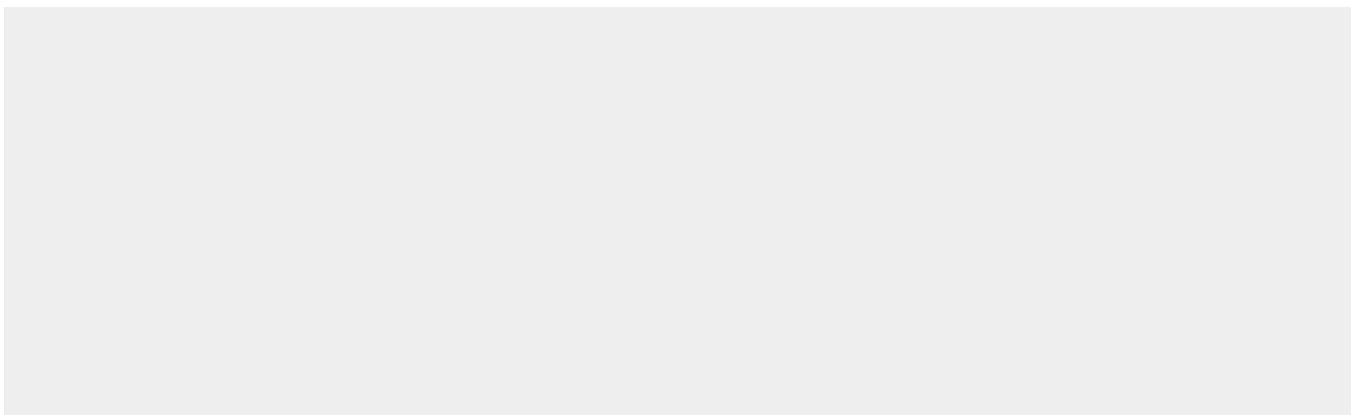
Tissue Location

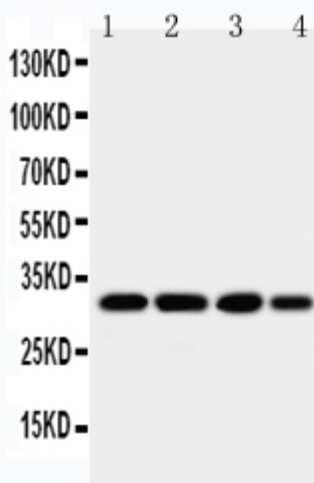
Detected in skin eccrine sweat glands, at the apical cell membrane and at intercellular canaliculi (at protein level).

Anti-Aquaporin 5 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Aquaporin 5 Antibody - Images



Anti-Aquaporin 5 antibody, ABO10871, Western blotting
Lane 1: MM453 Cell Lysate
Lane 2: MM231 Cell Lysate
Lane 3: SMMC Cell Lysate
Lane 4: SW620 Cell Lysate

Anti-Aquaporin 5 Antibody - 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 MÄ¼ller 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.