

## **Anti-Aquaporin 5 Antibody**

Catalog # ABO10871

# **Specification**

## **Anti-Aquaporin 5 Antibody - Product Information**

Application WB
Primary Accession P55064
Host 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<br>

**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 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.

## **Anti-Aquaporin 5 Antibody - Protein Information**

Name AQP5 (HGNC:638)

#### **Function**

Aquaporins form homotetrameric transmembrane channels, with each monomer independently mediating water transport across the plasma membrane along its osmotic gradient (PubMed:<a href="http://www.uniprot.org/citations/18768791" target="\_blank">18768791</a>, PubMed:<a href="http://www.uniprot.org/citations/8621489" target="\_blank">8621489</a>). 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:<a href="http://www.uniprot.org/citations/16571723" target="\_blank">16571723</a>). 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 Cytomety
- Cell Culture

# Anti-Aquaporin 5 Antibody - Images





Anti-Aquaporin 5 antibody, ABO10871, Western blottingLane 1: MM453 Cell LysateLane 2: MM231 Cell LysateLane 3: SMMC Cell LysateLane 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 Mýler 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.