

Anti-Aquaporin 10 Antibody
Catalog # ABO11402**Specification**

Anti-Aquaporin 10 Antibody - Product Information

| | |
|-------------------|------------------------|
| Application | WB |
| Primary Accession | Q96PS8 |
| Host | Rabbit |
| Reactivity | Human |
| Clonality | Polyclonal |
| Format | Lyophilized |

Description

Rabbit IgG polyclonal antibody for Aquaporin-10(AQP10) detection. Tested with WB in Human.

Reconstitution

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

Anti-Aquaporin 10 Antibody - Additional Information

Gene ID 89872

Other Names

Aquaporin-10, AQP-10, Aquaglyceroporin-10, Small intestine aquaporin, AQP10

Calculated MW

31763 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization

Membrane; Multi-pass membrane protein.

Tissue Specificity

Expressed exclusively in duodenum and jejunum. Highest expression in absorptive epithelial cells at the tips of villi in the jejunum.

Protein Name

Aquaporin-10

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 10(286-301aa SELETPASAQMLECKL).

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 10 Antibody - Protein Information**Name** AQP10**Function**

[Isoform 1]: Water channel that mediates water transport across cell membranes irrespective of the cytosolic pH (PubMed: [12084581](http://www.uniprot.org/citations/12084581), PubMed: [21733844](http://www.uniprot.org/citations/21733844), PubMed: [23382902](http://www.uniprot.org/citations/23382902), PubMed: [30420639](http://www.uniprot.org/citations/30420639)). The channel is permeable to glycerol, especially when the cytosolic pH is acidified (PubMed: [21733844](http://www.uniprot.org/citations/21733844), PubMed: [30420639](http://www.uniprot.org/citations/30420639)). Contributes to adipocyte water and glycerol permeability, and may thereby contribute to the utilization of glycerol derived from phospholipid degradation (PubMed: [23382902](http://www.uniprot.org/citations/23382902)). May contribute to water transport in the intestine (Probable).

Cellular Location

Apical cell membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. Lipid droplet. Note=Detected around lipid droplets

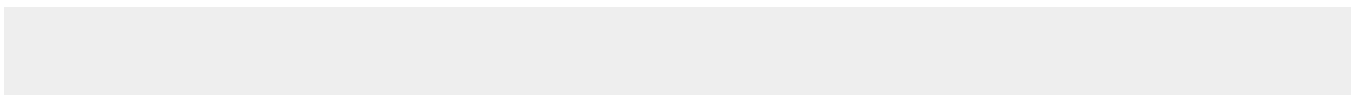
Tissue Location

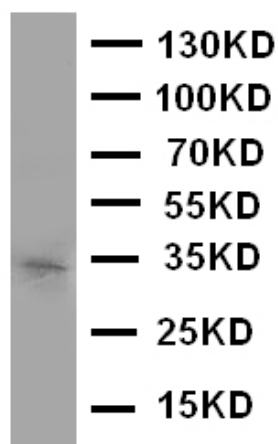
Detected in epithelial cells on villi in the ileum, and also in stomach, jejunum, colon, rectum, white adipose tissue and placenta (at protein level) (PubMed:15221416, PubMed:23382902) Expressed in duodenum and jejunum. Highest expression in absorptive epithelial cells at the tips of villi in the jejunum (PubMed:11573934, PubMed:12084581). Detected in subcutaneous adipose tissue (PubMed:23382902).

Anti-Aquaporin 10 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 10 Antibody - Images



Anti-Aquaporin 10 antibody, ABO11402, Western blottingWB: COLO320 Cell Lysate

Anti-Aquaporin 10 Antibody - Background

AQP10 was identified in human small intestine. This gene encoded a 264-amino-acid protein with high sequence identity with AQP3(53%), 9(52%), and 7(43%). These AQPs constitute one subfamily of AQP family that is differentiated from the other subfamily of AQP(AQP0, 1, 2, 4, 5, 6, and 8) by sequence homology. Northern blot analysis revealed expression of a 2.3-kb AQP10 transcript in jejunum but not liver. RNase protection analysis detected nearly exclusive expression in duodenum and jejunum. In situ hybridization analysis demonstrated highest expression of AQP10 in absorptive epithelial cells at the tips of villi in the jejunum. SDS-PAGE analysis showed expression of a 28-kD AQP10 protein, similar to its predicted size as well as to that of the other AQPs. Functional analysis indicated that cells expressing AQP10 are permeable to relatively low amounts of water, but, unlike AQP3, AQP7, and AQP9, are not permeable to urea or glycerol.