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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 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 10 Antibody - Protein Information

Name AQP10 (HGNC:16029)

Function
Aquaglyceroporins form homotetrameric transmembrane channels, with each monomer independently mediating glycerol and water transport across the plasma membrane along their osmotic gradient (PubMed:11573934, PubMed:12084581, PubMed:21733844, PubMed:23382902, PubMed:30420639). Could also be permeable to urea (PubMed:12084581). Among aquaglyceroporins, it exhibits a unique pH-gated glycerol transport activity, being more active at acidic pH. It most likely plays a central role in the efflux of glycerol formed during triglyceride hydrolysis in adipocytes and in glycerol uptake by enterocytes, as both processes occur and are stimulated at acidic pH (PubMed:11573934, PubMed:23382902, PubMed:30420639).

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 Cytomety
- Cell Culture

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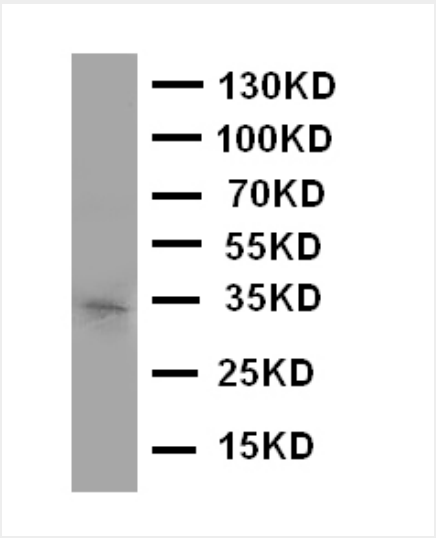
Anti-Aquaporin 10 Antibody - Images



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.