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Anti-Aquaporin 7 Antibody
Catalog # ABO11400

Specification

Anti-Aquaporin 7 Antibody - Product Information

Application	**WB**
Primary Accession	O14520
Host	**Rabbit**
Reactivity	**Human**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Aquaporin-7(AQP7) detection. Tested with WB in Human.

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

Anti-Aquaporin 7 Antibody - Additional Information

Gene ID 364

Other Names
Aquaporin-7, AQP-7, Aquaglyceroporin-7, Aquaporin adipose, AQPap, Aquaporin-7-like, AQP7, AQP7L, AQP9

Calculated MW
37232 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization
Membrane; Multi-pass membrane protein.

Protein Name
Aquaporin-7

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 N-terminus of human Aquaporin 7(23-42aa AKIQEILQRKMVREFLAEFM).

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 7 Antibody - Protein Information

Name AQP7 (HGNC:640)

Function
Aquaglyceroporins form homotetrameric transmembrane channels, with each monomer independently mediating glycerol and water transport across the plasma membrane along their osmotic gradient (PubMed:11952783, PubMed:30420639, PubMed:30423801, PubMed:36737436, PubMed:9405233). Could also be permeable to urea (PubMed:9405233). Mediates the efflux of glycerol, formed upon triglyceride hydrolysis, to avoid its accumulation in adipocytes and to make it available to other tissues. In the kidney, mediates the reabsorption of glycerol, preventing its loss in urine, again participating to energy homeostasis. In pancreatic beta cells, it also mediates the efflux of glycerol, regulating its intracellular levels (By similarity).

Cellular Location
Cell membrane; Multi-pass membrane protein. Cytoplasmic vesicle membrane; Multi-pass membrane protein. Lipid droplet. Note=Internalized from the cell membrane in response to catecholamine-induced activation of PKA; detected on intracellular membranes and colocalizes with lipid droplets (By similarity). Colocalizes with PLIN1 in adipocytes, probably on lipid droplets (PubMed:27832861). {ECO:0000250|UniProtKB:O54794, ECO:0000269|PubMed:27832861}

Tissue Location
Detected in the sperm head (at protein level) (PubMed:28042826). Detected in white adipose tissue (PubMed:9405233)

Anti-Aquaporin 7 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 7 Antibody - Images

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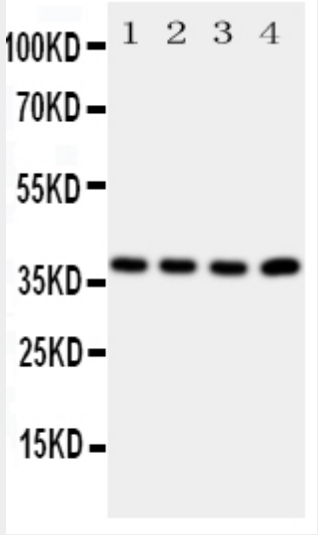

Anti-Aquaporin 7 antibody, ABO11400, Western blottingAll lanes: Anti -Aquaporin 7 (ABO11400) at 0.5ug/mlLane 1: SGC Whole Cell Lysate at 40ugLane 2: SMMC Whole Cell Lysate at 40ugLane 3: A549 Whole Cell Lysate at 40ugLane 4: COLO320 Whole Cell Lysate at 40ugPredicted bind size: 37KDObserved bind size: 37KD

Anti-Aquaporin 7 Antibody - Background

Aquaporin-7 is a protein that in humans is encoded by the AQP7 gene. The human AQP7 gene is composed of six exons distributing over 6.5 kb. The exon-intron boundaries are identical to those of the human AQP3 gene. The intron sizes are also similar. Moreover, chromosomal localization of AQP7 was assigned to 9p13 by fluorescent in situ hybridization, where AQP3 is also localized, suggesting that 9p13 may be another site of an aquaporin cluster. AQP7 acts as a glycerol facilitator in cardiomyocytes and that glycerol is a substrate for cardiac energy production. AQP7 is down-regulated in women with severe obesity. The expression of this glycerol channel is not affected by type 2 diabetes.