

Anti-Aquaporin 3 Antibody
Catalog # ABO10807

Specification

Anti-Aquaporin 3 Antibody - Product Information

Application	WB, IHC, ICC
Primary Accession	Q92482
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Aquaporin-3(AQP3) detection. Tested with WB, IHC-P, IHC-F, ICC in Human;Mouse;Rat.

Reconstitution

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

Anti-Aquaporin 3 Antibody - Additional Information

Gene ID 360

Other Names

Aquaporin-3, AQP-3, Aquaglyceroporin-3, AQP3

Calculated MW

31544 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Rat, Mouse, By Heat

Immunocytochemistry , 0.5-1 µg/ml, Human, Mouse, Rat
Immunohistochemistry(Frozen Section), 0.5-1 µg/ml, Rat, Human, Mouse
Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization

Basolateral cell membrane; Multi-pass membrane protein. In collecting ducts of kidney.

Tissue Specificity

Widely expressed in epithelial cells of kidney (collecting ducts) and airways, in keratinocytes, immature dendritic cells and erythrocytes. Isoform 2 is not detectable in erythrocytes at the protein level.

Protein Name

Aquaporin-3

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 3(278-292aa EENVKLAHVKHKEQI), different from the related rat and mouse sequences by one amino acid.

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.

Sequence Similarities

Belongs to the MIP/aquaporin (TC 1.A.8) family.

Anti-Aquaporin 3 Antibody - Protein Information

Name AQP3 {ECO:0000303|PubMed:7558005, ECO:0000312|HGNC:HGNC:636}

Function

Aquaglyceroporins form homotetrameric transmembrane channels, with each monomer independently mediating glycerol and water transport across the plasma membrane along their osmotic gradient (PubMed:12239222, PubMed:30420639). Could also be permeable to urea (By similarity). Also participates in cell permeability to H₂O₂ and H₂O₂- mediated signaling (PubMed:20724658). In skin, transports glycerol to the epidermis and stratum corneum, where it maintains hydration, elasticity, and supports lipid biosynthesis for barrier repair (By similarity). In kidney, contributes to the reabsorption of water, helping the body maintain proper fluid balance (By similarity).

Cellular Location

Cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:O14520}. Basolateral cell membrane {ECO:0000250|UniProtKB:P47862}; Multi-pass membrane protein {ECO:0000250|UniProtKB:O14520}

Tissue Location

Widely expressed in epithelial cells of kidney (collecting ducts) and airways, in keratinocytes, immature dendritic cells and erythrocytes. Isoform 2 is not detectable in erythrocytes at the protein level

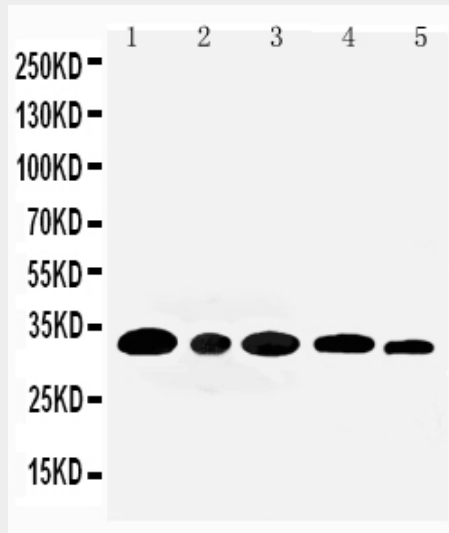
Anti-Aquaporin 3 Antibody - Protocols

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

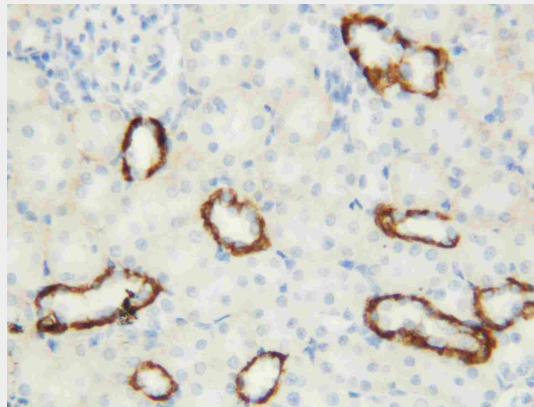
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)

- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

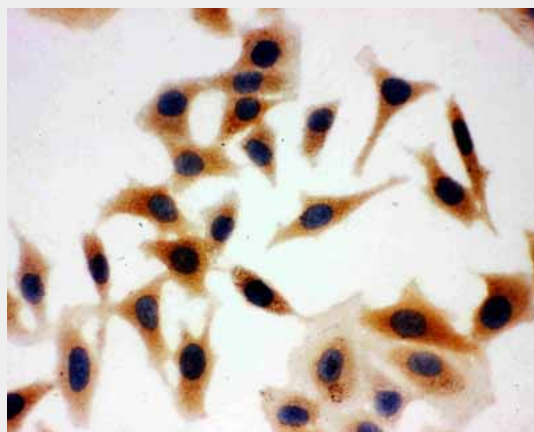
Anti-Aquaporin 3 Antibody - Images



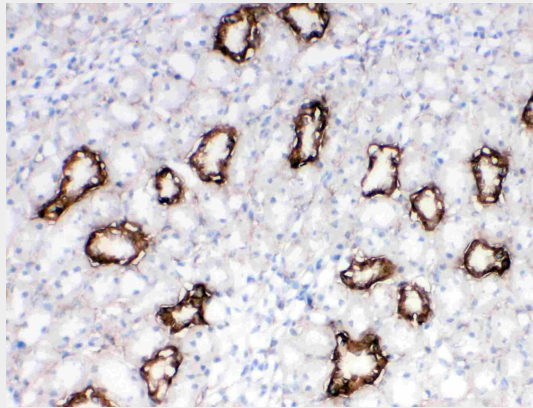
Anti-Aquaporin 3 antibody, ABO10807, Western blotting All lanes: Anti (ABO10807) at 0.5ug/ml
Lane 1: Rat Kidney Tissue Lysate at 50ug
Lane 2: Rat Lung Tissue Lysate at 50ug
Lane 3: Mouse Kidney Tissue Lysate at 50ug
Lane 4: MM453 Whole Cell Lysate at 40ug
Lane 5: SMMC-7721 Whole Cell Lysate at 40ug
Predicted bind size: 32KD
Observed bind size: 32KD



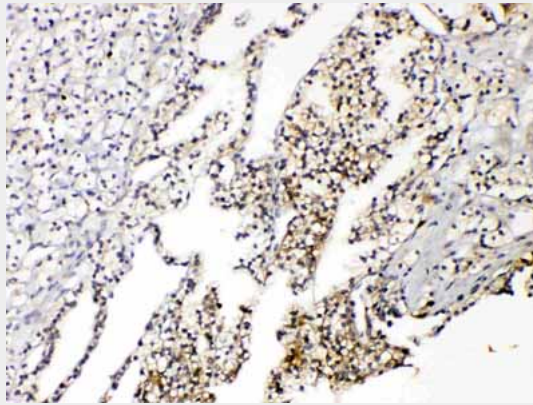
Anti-Aquaporin 3 antibody, ABO10807, IHC(P) IHC(P): Rat Kidney Tissue



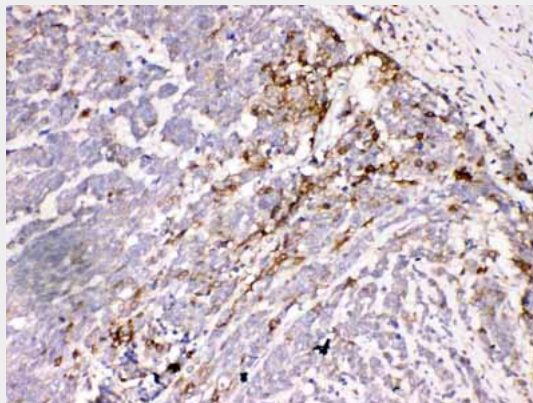
Anti-Aquaporin 3 antibody, ABO10807, ICCICC: HELA Cell



Anti-Aquaporin 3 antibody, ABO10807, IHC(F)IHC(F): Rat Kidney Tissue



Anti-Aquaporin 3 antibody, ABO10807, IHC(P)IHC(P): Human Renal Cancer Tissue



Anti-Aquaporin 3 antibody, ABO10807, IHC(P)IHC(P): Human Lung Cancer Tissue

Anti-Aquaporin 3 Antibody - Background

This gene encodes the water channel protein aquaporin 3. Aquaporins are a family of small integral membrane proteins related to the major intrinsic protein, also known as aquaporin 0. Aquaporin 3 is localized at the basal lateral membranes of collecting duct cells in the kidney. In addition to its water channel function, aquaporin 3 has been found to facilitate the transport of nonionic small solutes such as urea and glycerol, but to a smaller degree. It has been suggested that water channels can be functionally heterogeneous and possess water and solute permeation mechanisms. Alternative splicing of this gene results in multiple transcript variants encoding different isoforms.