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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 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.**

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

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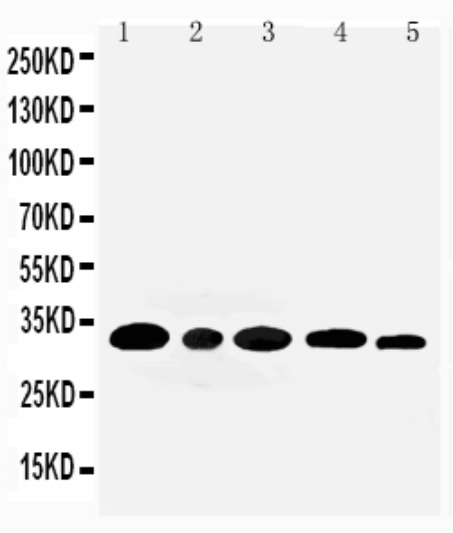
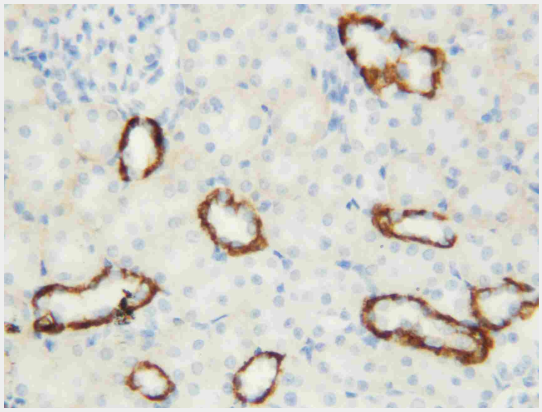
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

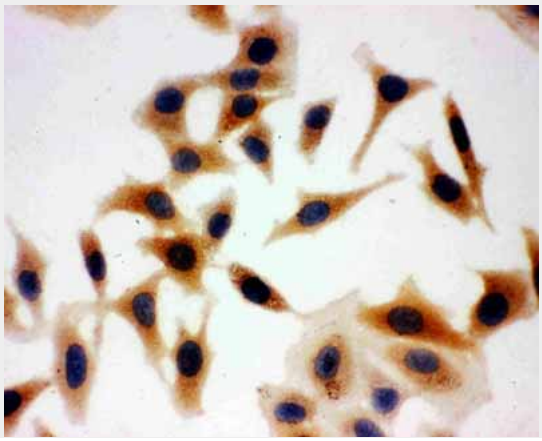
Anti-Aquaporin 3 Antibody - Images



Anti-Aquaporin 3 antibody, ABO10807, Western blottingAll lanes: Anti (ABO10807) at 0.5ug/mlLane 1: Rat Kidney Tissue Lysate at 50ugLane 2: Rat Lung Tissue Lysate at 50ugLane 3: Mouse Kidney Tissue Lysate at 50ugLane 4: MM453 Whole Cell Lysate at 40ugLane 5: SMMC-7721 Whole Cell Lysate at 40ugPredicted bind size: 32KDObserved bind size: 32KD



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



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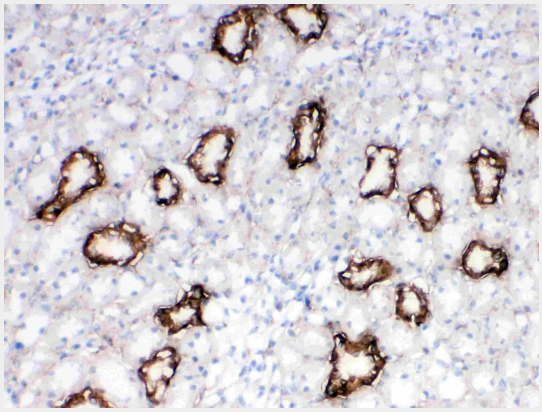
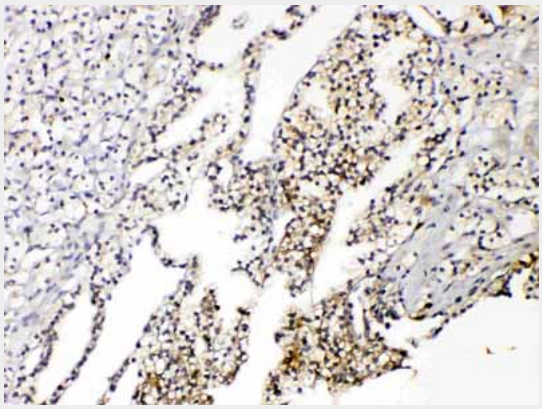
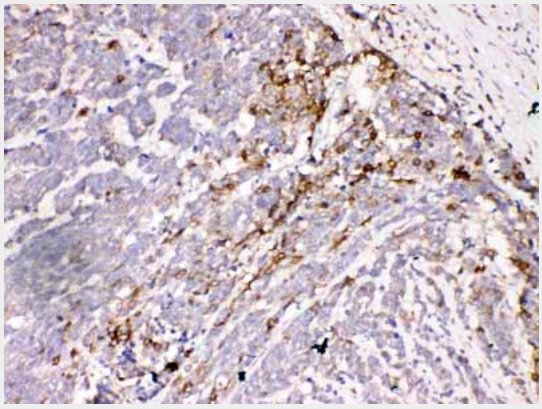
Anti-Aquaporin 3 antibody, ABO10807, ICCICC: HELA Cell



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.