

**Anti-Aquaporin 2 Antibody**  
Rabbit polyclonal antibody to Aquaporin 2  
Catalog # AP60223

**Specification**

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**Anti-Aquaporin 2 Antibody - Product Information**

Application	WB, IF
Primary Accession	<a href="#">P41181</a>
Other Accession	<a href="#">P56402</a>
Reactivity	Human, Mouse, Rat, Pig, Bovine, SARS, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	28837

**Anti-Aquaporin 2 Antibody - Additional Information**

Gene ID 359

**Other Names**

Aquaporin-2; AQP-2; ADH water channel; Aquaporin-CD; AQP-CD; Collecting duct water channel protein; WCH-CD; Water channel protein for renal collecting duct

**Target/Specificity**

Recognizes endogenous levels of Aquaporin 2 protein.

**Dilution**

WB~~WB (1/500 - 1/1000), IH (1/100 - 1/200), IF/IC (1/100 - 1/500)  
IF~~WB (1/500 - 1/1000), IH (1/100 - 1/200), IF/IC (1/100 - 1/500)

**Format**

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

**Storage**

Store at -20 °C. Stable for 12 months from date of receipt

**Anti-Aquaporin 2 Antibody - Protein Information**

Name AQP2 ([HGNC:634](#))

**Function**

Forms a water-specific channel that provides the plasma membranes of renal collecting duct with high permeability to water, thereby permitting water to move in the direction of an osmotic gradient (PubMed: [15509592](http://www.uniprot.org/citations/15509592), PubMed: [7510718](http://www.uniprot.org/citations/7510718), PubMed: [7524315](http://www.uniprot.org/citations/7524315), PubMed: [8140421](http://www.uniprot.org/citations/8140421))

target="\_blank">8140421</a>, PubMed:<a href="http://www.uniprot.org/citations/8584435" target="\_blank">8584435</a>). Plays an essential role in renal water homeostasis (PubMed:<a href="http://www.uniprot.org/citations/15509592" target="\_blank">15509592</a>, PubMed:<a href="http://www.uniprot.org/citations/7524315" target="\_blank">7524315</a>, PubMed:<a href="http://www.uniprot.org/citations/8140421" target="\_blank">8140421</a>). Could also be permeable to glycerol (PubMed:<a href="http://www.uniprot.org/citations/8584435" target="\_blank">8584435</a>).

#### Cellular Location

Apical cell membrane; Multi-pass membrane protein. Basolateral cell membrane {ECO:0000250|UniProtKB:P34080}; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. Cytoplasmic vesicle membrane; Multi-pass membrane protein. Golgi apparatus, trans-Golgi network membrane; Multi-pass membrane protein. Note=Shuttles from vesicles to the apical membrane (PubMed:15509592). Vasopressin-regulated phosphorylation is required for translocation to the apical cell membrane (PubMed:15509592). PLEKHA8/FAPP2 is required to transport AQP2 from the TGN to sites where AQP2 is phosphorylated (By similarity) {ECO:0000250|UniProtKB:P34080, ECO:0000269|PubMed:15509592}

#### Tissue Location

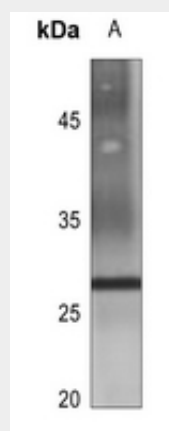
Expressed in collecting tubules in kidney medulla (at protein level) (PubMed:7510718). Detected in kidney (PubMed:7510718).

### Anti-Aquaporin 2 Antibody - Protocols

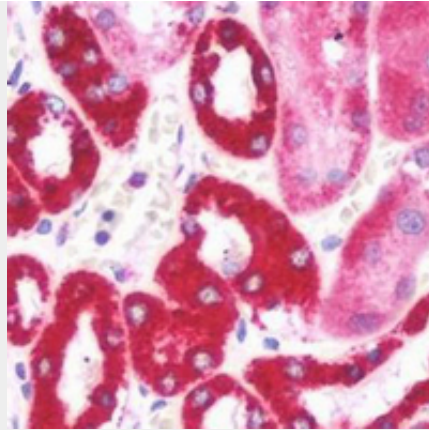
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

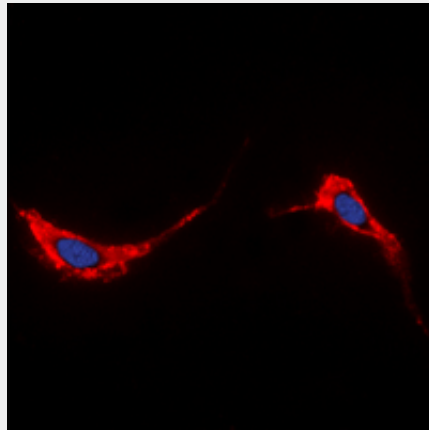
### Anti-Aquaporin 2 Antibody - Images



Western blot analysis of Aquaporin 2 expression in mouse kidney (A) whole cell lysates.



Immunohistochemical analysis of Aquaporin 2 staining in human kidney formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of Aquaporin 2 staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

#### **Anti-Aquaporin 2 Antibody - Background**

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human Aquaporin 2. The exact sequence is proprietary.