

**Aquaporin 2 Antibody**  
Catalog # ASM10484

**Specification**

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**Aquaporin 2 Antibody - Product Information**

|                   |                             |
|-------------------|-----------------------------|
| Application       | <b>IHC, WB</b>              |
| Primary Accession | <a href="#">P34080</a>      |
| Other Accession   | <a href="#">NP_037041.2</a> |
| Host              | <b>Rabbit</b>               |
| Reactivity        | <b>Human, Mouse, Rat</b>    |
| Clonality         | <b>Polyclonal</b>           |

**Description**

Rabbit Anti-Rat Aquaporin 2 Polyclonal

**Target/Specificity**

Detects ~28.8kDa. May detect larger glycosylated bands ~35-50kDa.

**Other Names**

ADH water channel Antibody, AQP 2 Antibody, AQP CD Antibody, AQP-2 Antibody, AQP-CD Antibody, AQP2 Antibody, AQP2\_HUMAN Antibody, AQPCD Antibody, Aquaporin 2 collecting duct Antibody, Aquaporin CD Antibody, Aquaporin-2 Antibody, Aquaporin-CD Antibody, Aquaporin2 Antibody, Aquaporine 2 Antibody, Collecting duct water channel protein Antibody, MGC34501 Antibody, Water channel aquaporin 2 Antibody, Water channel protein for renal collecting duct Antibody, WCH CD Antibody, WCH-CD Antibody, WCHCD Antibody

**Immunogen**

Produced against the C-terminal peptide (Sequence N-CLKGLEPDTDWEEREVRRRQ) of rat aquaporin 2

**Purification**

Protein A Purified

Storage **-20°C**

**Storage Buffer**

PBS, 50% glycerol, 0.09% sodium azide

Shipping Temperature **Blue Ice or 4°C**

**Certificate of Analysis**

0.5 µg/ml of SPC-503 was sufficient for detection of aquaporin 2 in 10 µg of rat kidney tissue lysate by colorimetric immunoblot analysis using Goat anti-rabbit IgG:HRP as the secondary antibody.

**Cellular Localization**

Cell Membrane | Apical Cell Membrane | Basolateral Cell Membrane | Cytoplasmic Vesicle | Cytoplasmic Vesicle Membrane | Golgi Apparatus

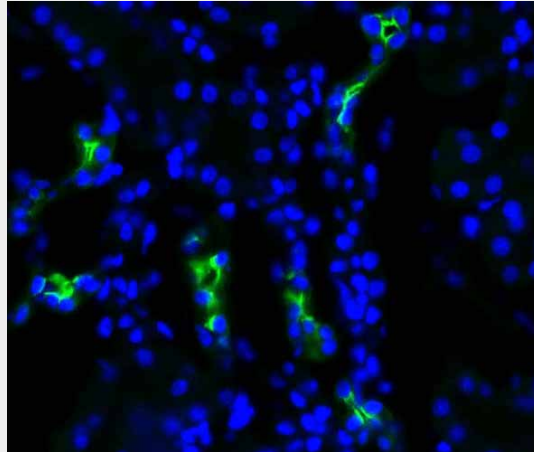
**Aquaporin 2 Antibody - Protocols**

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

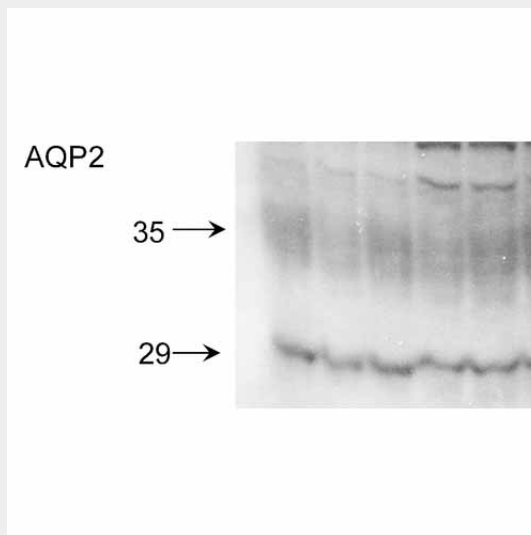
- [Western Blot](#)

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

### Aquaporin 2 Antibody - Images



Immunohistochemistry analysis using Rabbit Anti-Aquaporin 2 Polyclonal Antibody (ASM10484). Tissue: kidney tissue. Species: Rat. Primary Antibody: Rabbit Anti-Aquaporin 2 Polyclonal Antibody (ASM10484) at 1:200. Secondary Antibody: FITC Goat Anti-Rabbit (green).



Western blot analysis of Rat kidney inner medullary homogenates showing detection of Aquaporin 2 protein using Rabbit Anti-Aquaporin 2 Polyclonal Antibody (ASM10484). Primary Antibody: Rabbit Anti-Aquaporin 2 Polyclonal Antibody (ASM10484) at 1:2000. Showing glycosylated and non-glycosylated bands.

### Aquaporin 2 Antibody - Background

Aquaporins selectively conduct water molecules in and out of the cell, while preventing the passage of ions and other solutes. Known as water channels, they are integral membrane pore proteins (1, 2). Aquaporin 2 is the vasopressin-regulated water channel of the apical membrane of

collecting duct cells. It is located in kidney epithelial cells and usually lies dormant in intracellular vesicle membranes. When it is needed vasopressin binds to the cell surface vasopressin receptor, activating a signaling pathway that cause AQP2 containing vesicles to fuse with the plasma membrane so the AQP2 can be used by the cell (3). Defects in AQP2 area cause of an autosomal dominant form of nephrogenic diabetes insipidus (NDI) (4).

#### **Aquaporin 2 Antibody - References**

1. Gonen T., Walz T. (2006) Q. Rev. Biophys. 39(4): 361-396.
2. Knepper M.A. (1994) Proc Natl. Acad Sci. USA. 91(14): 6255-6258.
3. Lodish H.F. (2008) Molecular Cell Biology. New York: W.H. Freeman. Print. 445.
4. [www.vivo.colostate.edu/hbooks/molecules/aquaporins.html](http://www.vivo.colostate.edu/hbooks/molecules/aquaporins.html)