

Aquaporin 4 Antibody
Catalog # **ASM10486**

Specification

Aquaporin 4 Antibody - Product Information

Application **IHC, WB**
 Primary Accession [P47863](#)
 Other Accession [NP_036957.1](#)
 Host **Rabbit**
 Reactivity **Human, Mouse, Rat**
 Clonality **Polyclonal**

Description
 Rabbit Anti-Rat Aquaporin 4 Polyclonal

Target/Specificity
 Detects ~35kDa. May detect larger glycosylated bands ~50kDa.

Other Names
 AQP 4 Antibody, AQP-4 Antibody, AQP4 Antibody, AQP4_HUMAN Antibody, Aquaporin type 4 Antibody, Aquaporin-4 Antibody, Aquaporin4 Antibody, HMIWC 2 Antibody, HMIWC2 Antibody, Mercurial insensitive water channel Antibody, Mercurial-insensitive water channel Antibody, MGC22454 Antibody, MIWC Antibody, WCH 4 Antibody, WCH4 Antibody

Immunogen
 Produced against the C-terminal peptide (Sequence N-CTKGSYMEVEDNRSQVETED) of rat aquaporin 4

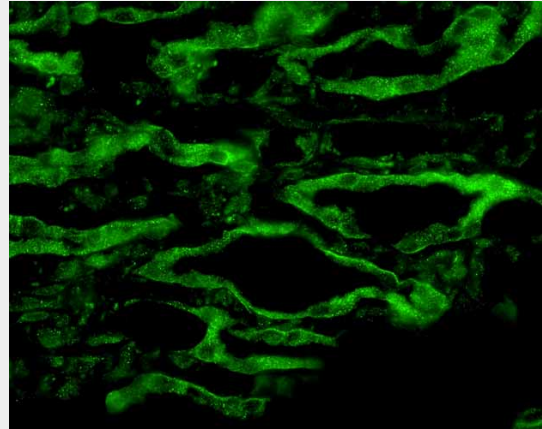
Purification
 Protein A Purified

Storage **-20°C**
Storage Buffer
 PBS, 50% glycerol, 0.09% sodium azide

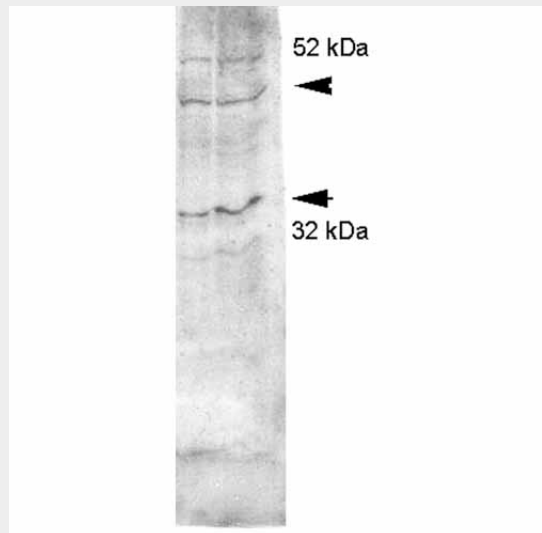
Shipping **Blue Ice or 4°C**
 Temperature

Certificate of Analysis
 0.5 µg/ml of SPC-505 was sufficient for detection of aquaporin 4 in 10 µg of rat kidney tissue lysate by colorimetric immunoblot analysis using Goat anti-rabbit IgG:HRP as the secondary antibody.

Cellular Localization



Immunohistochemistry analysis using Rabbit Anti-Aquaporin 4 Polyclonal Antibody (ASM10486). Tissue: kidney tissue. Species: Rat. Primary Antibody: Rabbit Anti-Aquaporin 4 Polyclonal Antibody (ASM10486) at 1:200. Secondary Antibody: FITC Goat Anti-Rabbit (green).



Western blot analysis of Rat kidney inner medullary homogenates showing detection of Aquaporin 4 protein using Rabbit Anti-Aquaporin 4 Polyclonal Antibody (ASM10486). Primary Antibody: Rabbit Anti-Aquaporin 4 Polyclonal Antibody (ASM10486) at 1:2000.

Membrane

Aquaporin 4 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 4 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 4 is constitutively expressed in the basolateral cell membrane of principal collecting duct cells in the kidney and provide a pathway for water to exit these cells (3). It is also expressed in astrocytes and is up regulated by direct insult to the CNS (4). Aquaporin 4 has been proposed as the primary autoimmune target in neuromyelitis optica (5, 6).

Aquaporin 4 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. Agre P., Nielsen S. (1996) Nephrologie. 17(7): 409-415.
4. Nagelhus E.A., Mathiesen T.M., Ottersen O.P. (2004) Neuroscience. 129(4): 905-913.
5. Lennon V.A., Kryzer T.J., Pittock S.J., Verkman A.S., Hinson S.R. (2005) J Exp Med. 202(4): 473-477.
6. Bradl M., Lassmann D.H. (2008) Int. MS Journal/MS Forum. 15(3): 75-78.