

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
Format	APC

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 Temperature **Blue Ice or 4°C**

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

Membrane

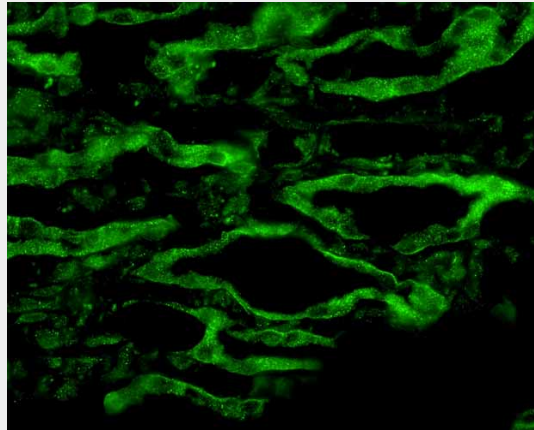
Aquaporin 4 Antibody - Protocols

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

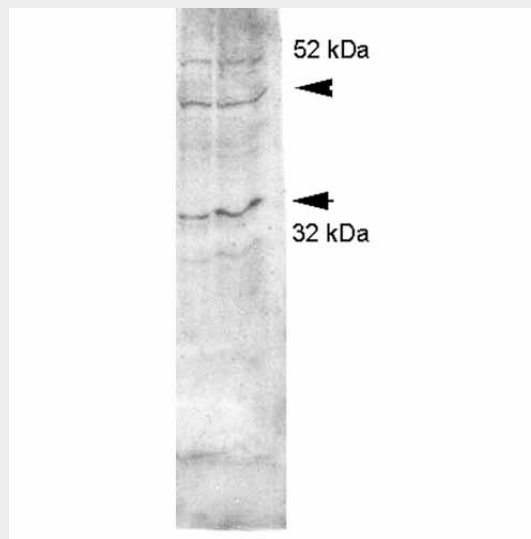
- [Western Blot](#)
- [Blocking Peptides](#)

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

Aquaporin 4 Antibody - Images



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.

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.