

Rabbit Anti-Aquaporin 4 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP52226**Specification**

Rabbit Anti-Aquaporin 4 Polyclonal Antibody - Product Information

Application	WB, IHC-P, FC
Primary Accession	P55088
Reactivity	Human, Mouse, Rat, Pig
Host	Rabbit
Clonality	Polyclonal

Rabbit Anti-Aquaporin 4 Polyclonal Antibody - Additional Information**Gene ID** 11829**Other Names**

WCH4; Aquaporin-4; AQP-4; Mercurial-insensitive water channel; MIWC; Aqp4

Dilution

WB~~1:100~1:500<br \>IHC-P~~1:100~1:500<br \>FC~~1:20~1:100

Format

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Rabbit Anti-Aquaporin 4 Polyclonal Antibody - Protein Information**Name** Aqp4**Function**

Forms a water-specific channel (PubMed:8660998, PubMed:9276712, PubMed:18286643). Plays an important role in brain water homeostasis and in glymphatic solute transport (PubMed:22896675, PubMed:27751903, PubMed:30561329, PubMed:30557661). Required for a normal rate of water exchange across the blood brain interface (PubMed:30557661). Required for normal levels of cerebrospinal fluid influx into the brain cortex and parenchyma along paravascular spaces that surround penetrating arteries, and

for normal drainage of interstitial fluid along paravenous drainage pathways. Thereby, it is required for normal clearance of solutes from the brain interstitial fluid, including soluble beta-amyloid peptides derived from APP (PubMed:22896675, PubMed:27751903, PubMed:30561329). Plays a redundant role in urinary water homeostasis and urinary concentrating ability (PubMed:9276712).

Cellular Location

Cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P55087}. Basolateral cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P55087}. Endosome membrane {ECO:0000250|UniProtKB:P47863}. Cell membrane, sarcolemma; Multi-pass membrane protein {ECO:0000250|UniProtKB:P55087}. Cell projection. Note=Activation of the vasopressin receptor AVPR1A triggers AQP4 phosphorylation at Ser-180 and promotes its internalization from the cell membrane (By similarity). Detected on brain astrocyte processes and astrocyte endfeet close to capillaries (PubMed:22896675). {ECO:0000250|UniProtKB:P47863, ECO:0000269|PubMed:22896675}

Tissue Location

Detected in brain cortex, especially around cortical blood vessels, and subjacent to pia, with lower levels in parenchymal membranes (PubMed:27751903). Detected in ependymal and astroglial cells in brain (PubMed:8660998, PubMed:9276712, PubMed:22896675, PubMed:27751903). Detected in supporting Hensen's cells, inner sulcus cells and Claudius cells in the inner ear (PubMed:11406631). Detected in skeletal muscle (PubMed:29055082) Detected in gastric parietal cells (PubMed:10915655). Detected in principal cells in collecting ducts in kidney medulla (at protein level) (PubMed:9276712, PubMed:16641094). Detected in brain, heart and skeletal muscle (PubMed:8660998).

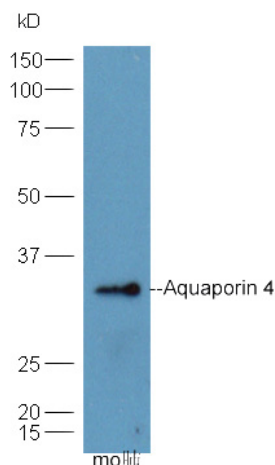
Rabbit Anti-Aquaporin 4 Polyclonal Antibody - Protocols

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

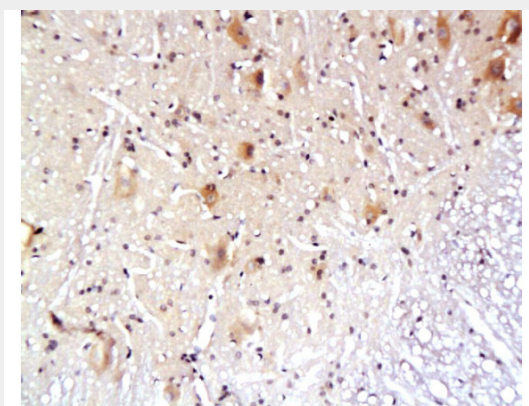
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Rabbit Anti-Aquaporin 4 Polyclonal Antibody - Images

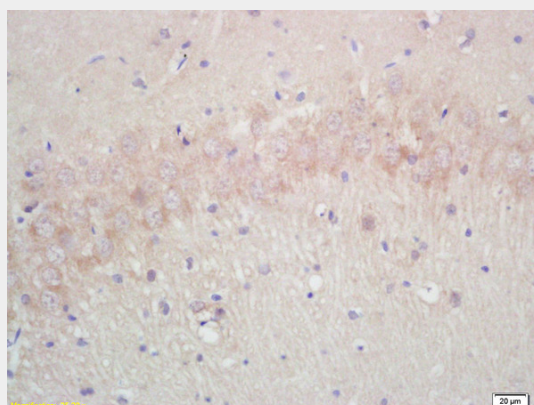




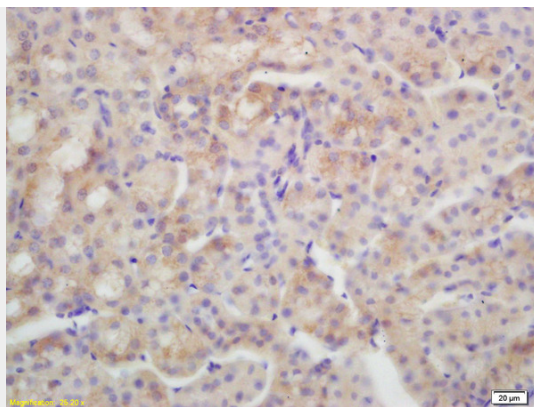
Rat Lung lysates probed with Anti- AQP4 Polyclonal Antibody, Unconjugated (AP52226) at 1:300 in 4°C. Followed by conjugation to secondary antibody at 1:5000 90min in 37°C. Predicted band 35kD. Observed band size: 33kD.



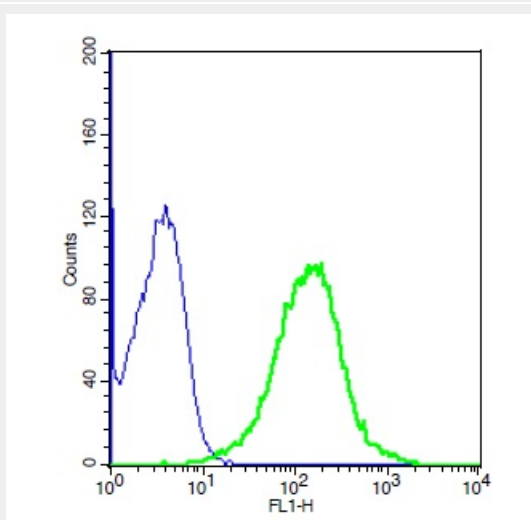
Formalin-fixed and paraffin embedded rat spinal cord tissue labeled with Anti-AQP4 Polyclonal Antibody, Unconjugated AP52226 at 1:200, followed by conjugation to the secondary antibody and DAB staining



Formalin-fixed and paraffin embedded rat brain labeled with Rabbit Anti Annexin A13 Polyclonal Antibody, Unconjugated AP52226 at 1:200 followed by conjugation to the secondary antibody and DAB staining



Formalin-fixed and paraffin embedded mouse kidney labeled with Rabbit Anti AQP4 Polyclonal Antibody, Unconjugated AP52226 at 1:200 followed by conjugation to the secondary antibody and DAB staining



Human A549 cell lysates probed with Rabbit Anti-Aquaporin 4 Polyclonal Antibody, Unconjugated (AP52226) (green) at 1:20 for 30 minutes followed by a FITC conjugated secondary antibody compared to control cells (blue).

Rabbit Anti-Aquaporin 4 Polyclonal Antibody - Background

Forms a water-specific channel. Osmoreceptor which regulates body water balance and mediates water flow within the central nervous system.