

## Aquaporin 4 monoclonal antibody

Catalog: MB65876

Host: Mouse

Reactivity: Human, Mouse, Rat

### BackGround:

Forms a water-specific channel (PubMed:7559426, PubMed:8601457, PubMed:19383790).

Plays an important role in brain water homeostasis and in glymphatic solute transport. Required for a normal rate of water exchange across the blood brain interface. 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. Plays a redundant role in urinary water homeostasis and urinary concentrating ability (By similarity).

### Product:

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.

### Molecular Weight:

~ 46 kDa

### Swiss-Prot:

P55087

### Purification&Purity:

The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

### Applications:

WB (1/1000 - 1/3000), IHC (1/100 - 1/200), IF/ICC (1/100 - 1/200)

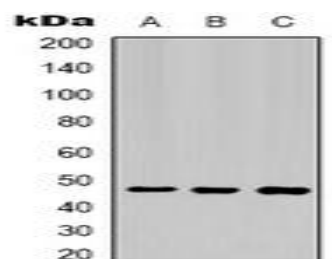
### Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

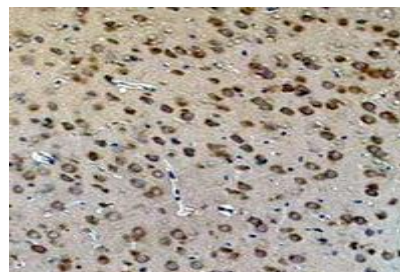
### Specificity:

Recognizes endogenous levels of Aquaporin 4 protein.

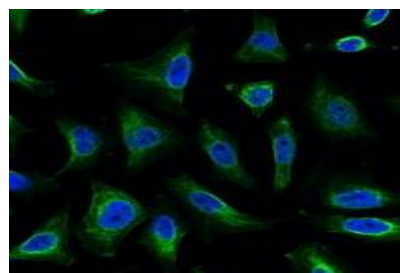
### DATA:



Western blot analysis of Aquaporin 4 expression in HeLa (A), mouse heart (B), rat heart (C) whole cell lysates.



Immunohistochemical analysis of Aquaporin 4 staining in rat brain 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 4 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 FITC-conjugated second-

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## PRODUCT DATA SHEET

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ary antibody (green) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

**Note:**

For research use only, not for use in diagnostic procedure.

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