

Anti-AQP4 Rabbit Monoclonal Antibody
Catalog # ABO15155**Specification**

Anti-AQP4 Rabbit Monoclonal Antibody - Product Information

Application	IHC
Primary Accession	P55087
Host	Rabbit
Isotype	IgG
Reactivity	Rat, Human
Clonality	Monoclonal
Format	Liquid

Description

Anti-AQP4 Rabbit Monoclonal Antibody . Tested in IHC application. This antibody reacts with Human, Rat.

Anti-AQP4 Rabbit Monoclonal Antibody - Additional Information

Gene ID 361

Other Names

Aquaporin-4, AQP-4, Mercurial-insensitive water channel, MIWC, WCH4, AQP4

Application Details

IHC 1:50-1:200

Contents

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen

A synthesized peptide derived from human AQP4

Purification

Affinity-chromatography

Storage

Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Anti-AQP4 Rabbit Monoclonal Antibody - Protein Information

Name AQP4

Function

Forms a water-specific channel (PubMed:19383790, PubMed:<a href="http://www.uniprot.org/citations/7559426"

target="_blank">7559426, PubMed:8601457). Plays an important role in brain water homeostasis (PubMed:37143309). It is involved in lymphatic solute transport and is 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).

Cellular Location

Cell membrane; Multi-pass membrane protein. Basolateral cell membrane {ECO:0000250|UniProtKB:P55088}; Multi-pass membrane protein. Endosome membrane {ECO:0000250|UniProtKB:P47863}. Cell membrane, sarcolemma; Multi-pass membrane protein. Cell projection {ECO:0000250|UniProtKB:P47863}. Note=Activation of the vasopressin receptor AVPR1A triggers AQP4 phosphorylation at Ser-180 and promotes its internalization from the cell membrane. Detected on brain astrocyte processes and astrocyte endfeet close to capillaries {ECO:0000250|UniProtKB:P47863}

Tissue Location

Detected in skeletal muscle (PubMed:29055082). Detected in stomach, along the glandular base region of the fundic gland (at protein level) (PubMed:8601457). Detected in brain, lung and skeletal muscle, and at much lower levels in heart and ovary (PubMed:7559426, PubMed:8601457).

Anti-AQP4 Rabbit Monoclonal 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](#)

Anti-AQP4 Rabbit Monoclonal Antibody - Images