

Aquaporin 4 Monoclonal Antibody(4H1)
Catalog # AP63316**Specification****Aquaporin 4 Monoclonal Antibody(4H1) - Product Information**

Application	WB
Primary Accession	P55087
Reactivity	Human, Mouse, Rat
Host	Mouse
Clonality	Monoclonal

Aquaporin 4 Monoclonal Antibody(4H1) - Additional Information**Gene ID** 361**Other Names**

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

Dilution

WB~~WB: 1:1000 IF: 1:100-200 IHC 1:50-300

Format

PBS, pH 7.4, containing 0.09% (W/V) sodium azide as Preservative and 50% Glycerol.

Storage Conditions

-20°C

Aquaporin 4 Monoclonal Antibody(4H1) - Protein Information**Name** AQP4**Function**

Forms a water-specific channel (PubMed:19383790, PubMed:7559426, PubMed:8601457). Plays an important role in brain water homeostasis (PubMed:37143309). It is involved in glymphatic 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

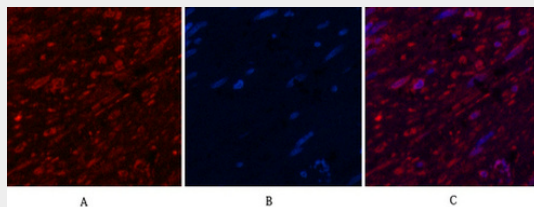
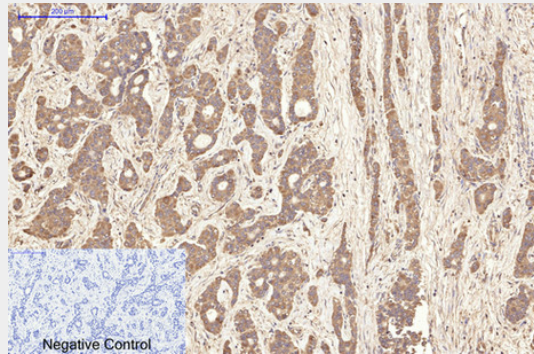
Detected in skeletal muscle (PubMed:29055082). Detected in stomach, along the glandular base region of the fundic gland (at protein level) (PubMed:8601457). Detected in brain, lung and skeletal muscle, and at much lower levels in heart and ovary (PubMed:7559426, PubMed:8601457).

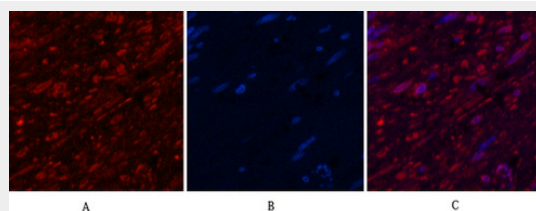
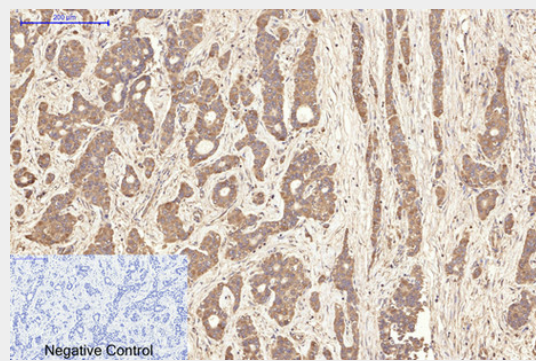
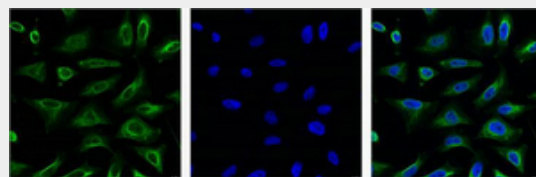
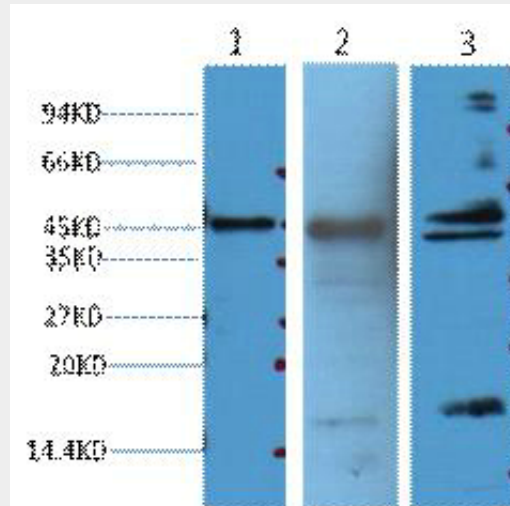
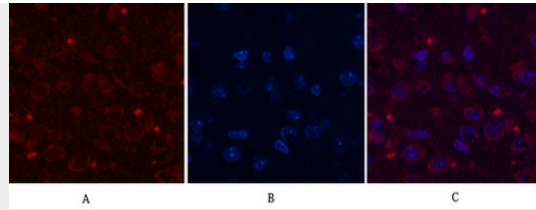
Aquaporin 4 Monoclonal Antibody(4H1) - Protocols

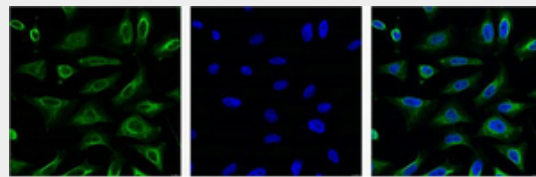
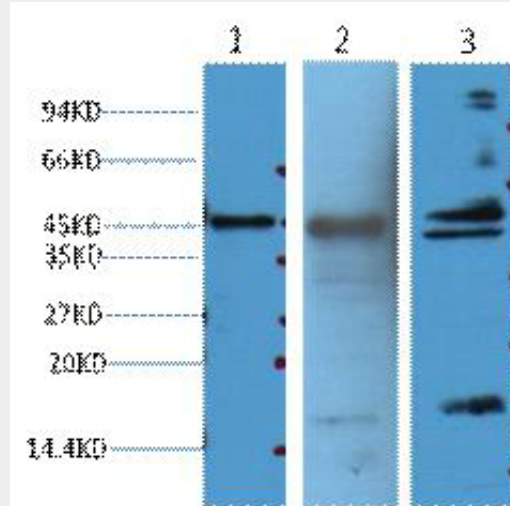
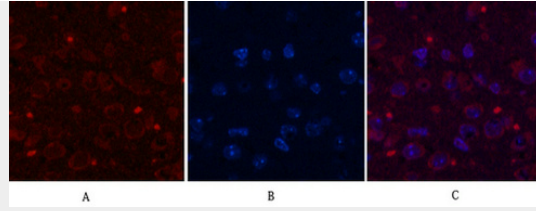
Provided below are standard protocols that you may find useful for product applications.

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

Aquaporin 4 Monoclonal Antibody(4H1) - Images







Aquaporin 4 Monoclonal Antibody(4H1) - Background

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