



Aquaporin 4 Monoclonal Antibody(4H1)

Catalog No	YP-Ab-16308
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;IHC;IF
Gene Name	AQP4
Protein Name	Aquaporin-4
Immunogen	Synthetic Peptide of Aquaporin 4
Specificity	The antibody detects endogenous Aquaporin 4 proteins.
Formulation	PBS, pH 7.4, containing 0.5%BSA, 0.02% sodium azide as Preservative and 50% Glycerol.
Source	Monoclonal, Mouse
Purification	The antibody was affinity-purified from mouse ascites by affinity-chromatography using specific immunogen.
Dilution	WB: 1:1000 IF: 1:100-200 IHC 1:50-300
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	AQP4; Aquaporin-4; AQP-4; Mercurial-insensitive water channel; MIWC; WCH4
Observed Band	48kD
Cell Pathway	Cell membrane ; Multi-pass membrane protein . Basolateral cell membrane ; Multi-pass membrane protein . Endosome membrane . Cell membrane, sarcolemma ; Multi-pass membrane protein . Cell projection . 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. .
Tissue Specificity	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).
Function	domain:Aquaporins contain two tandem repeats each containing three membrane-spanning domains and a pore-forming loop with the signature motif Asn-Pro-Ala (NPA).function:Forms a water-specific channel. Osmoreceptor which regulates body water balance and mediates water flow within the central nervous system.,similarity:Belongs to the MIP/aquaporin (TC 1.A.8) family.,tissue specificity:Brain - muscle >> heart, kidney, lung, and trachea.,
Background	This gene encodes a member of the aquaporin family of intrinsic membrane proteins that function as water-selective channels in the plasma membranes of



many cells. This protein is the predominant aquaporin found in brain and has an important role in brain water homeostasis. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. A recent study provided evidence for translational readthrough in this gene and expression of an additional C-terminally extended isoform via the use of an alternative in-frame translation termination codon. [provided by RefSeq, Dec 2015],

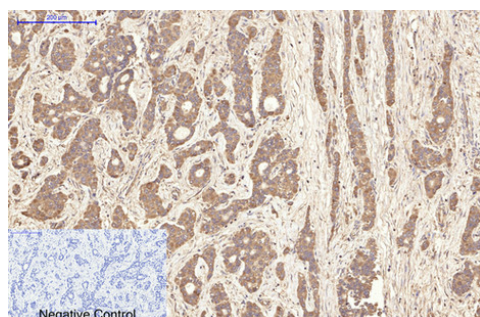
matters needing attention

Avoid repeated freezing and thawing!

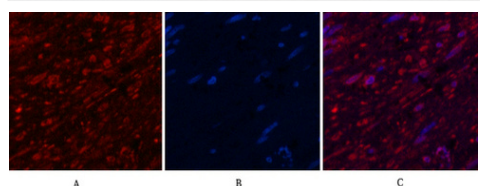
Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

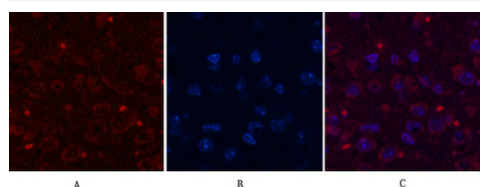
Products Images



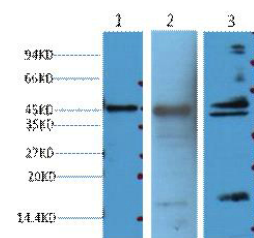
Immunohistochemical analysis of paraffin-embedded Human-liver-cancer tissue. 1, Aquaporin 4 Monoclonal Antibody(4H1) was diluted at 1:200(4°C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C, 20min). 3, Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.



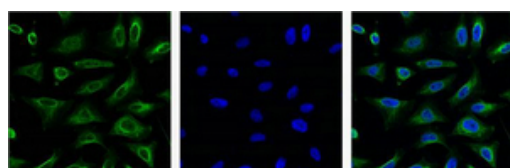
Immunofluorescence analysis of Human-appendix tissue. 1, Aquaporin 4 Monoclonal Antibody(4H1)(red) was diluted at 1:200(4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300(room temperature, 50min). 3, Picture B: DAPI(blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



Immunofluorescence analysis of Mouse-brain tissue. 1, Aquaporin 4 Monoclonal Antibody(4H1)(red) was diluted at 1:200(4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300(room temperature, 50min). 3, Picture B: DAPI(blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



Western blot analysis of 1) HeLa, 2) Mouse Heart tissue, 3) Rat Heart Tissue, diluted at 1:2000.



IF analysis of HeLa with antibody (Left) and DAPI (Right) diluted at 1:100.