




Rabbit Anti-Aquaporin 4 antibody

SL0634R

Product Name:	Aquaporin 4
Chinese Name:	水Channel protein4抗体
Alias:	aquaporin 4; WCH4; Mercurial-insensitive water channel; MIWC; AQP 4; AQP4; Aquaporin4; HMIWC 2; HMIWC2; Mercurial insensitive water channel; MGC22454; MIWC; AQP4 HUMAN; Aquaporin-4; AQP-4.
文献引用 	<p>Specific References(4) SL0634R has been referenced in 4 publications.</p> <p>[IF=2.51]Gang, Zhang, et al. "Detection of hypoxic-ischemic brain injury with 3D-enhanced T2* weighted angiography (ESWAN) imaging." European Journal of Radiology (2013).IHC-P;Pig. PubMed:23777745</p> <p>[IF=2.02]Duan, Hubin, et al. "The role of neuropeptide Y and aquaporin 4 in the pathogenesis of intestinal dysfunction caused by traumatic brain injury." Journal of Surgical Research (2013).IHC-P;Rat. PubMed:23622727</p> <p>[IF=0.23]Li, Cheng, et al. "Melatonin lowers edema after spinal cord injury." Neural Regeneration Research 9.24 (2014): 2205.IHC-P;Rat. PubMed:25657743</p> <p>[IF=0.64]Rajesh, Kumar, Li Xiaojie, and Kong Xiangying. "The Effect of Early Intervention and Rehabilitation in the Expression of Aquaporin-4; and Ultrastructure Changes on Rats Offsprings Damaged Brain Caused by Intrauterine Infection." Journal of Korean Neurosurgical Society 58.1 (2015): 14-21.WB;Rat. PubMed:26279808</p>
Organism Species:	Rabbit

Clonality:	Polyclonal
React Species:	Human, Mouse, Rat, Pig, Cow, Rabbit, Sheep,
Applications:	WB=1:500-2000 IHC-P=1:400-800 IHC-F=1:400-800 Flow-Cyt=1µg /test ICC=1:100-500 IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	36kDa
Cellular localization:	The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human AQP4:271-323/323<Cytoplasmic>
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. 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.
PubMed:	PubMed
Product Detail:	<p>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. The encoded protein is the predominant aquaporin found in brain. Two alternatively spliced transcript variants encoding distinct isoforms have been found for this gene. [provided by RefSeq, Jul 2008]</p> <p>Function: Forms a water-specific channel. Osmoreceptor which regulates body water balance and mediates water flow within the central nervous system.</p> <p>Subunit: Homotetramer. Part of a complex containing MLC1, TRPV4, HEPACAM and ATP1B1.</p> <p>Subcellular Location: Membrane; Multi-pass membrane protein.</p> <p>Tissue Specificity: Brain, muscle, heart, kidney, lung, and trachea.</p> <p>Similarity: Belongs to the MIP/aquaporin (TC 1.A.8) family.</p> <p>SWISS: P55088</p> <p>Gene ID:</p>

361

Database links:

[Entrez Gene: 281008](#) Cow

[Entrez Gene: 361](#) Human

[Entrez Gene: 11829](#) Mouse

[Entrez Gene: 25293](#) Rat

[Omim: 600308](#) Human

[SwissProt: O77750](#) Cow

[SwissProt: P55087](#) Human

[SwissProt: P55088](#) Mouse

[SwissProt: P47863](#) Rat

[Unigene: 281008](#) Cow

[Unigene: 315369](#) Human

[Unigene: 250786](#) Mouse

[Unigene: 90091](#) Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Channel protein (Channel Protein)

水Channel protein(AQPs)广泛分布于机体不同组织器官中,脑组织中的水Channel protein主要为AQP4.

AQP-

4蛋白主要在星型胶质细胞和室管膜细胞内表达,尤其在于毛细血管和软脑膜直接接触的胶质细胞上及血管周表达丰富.

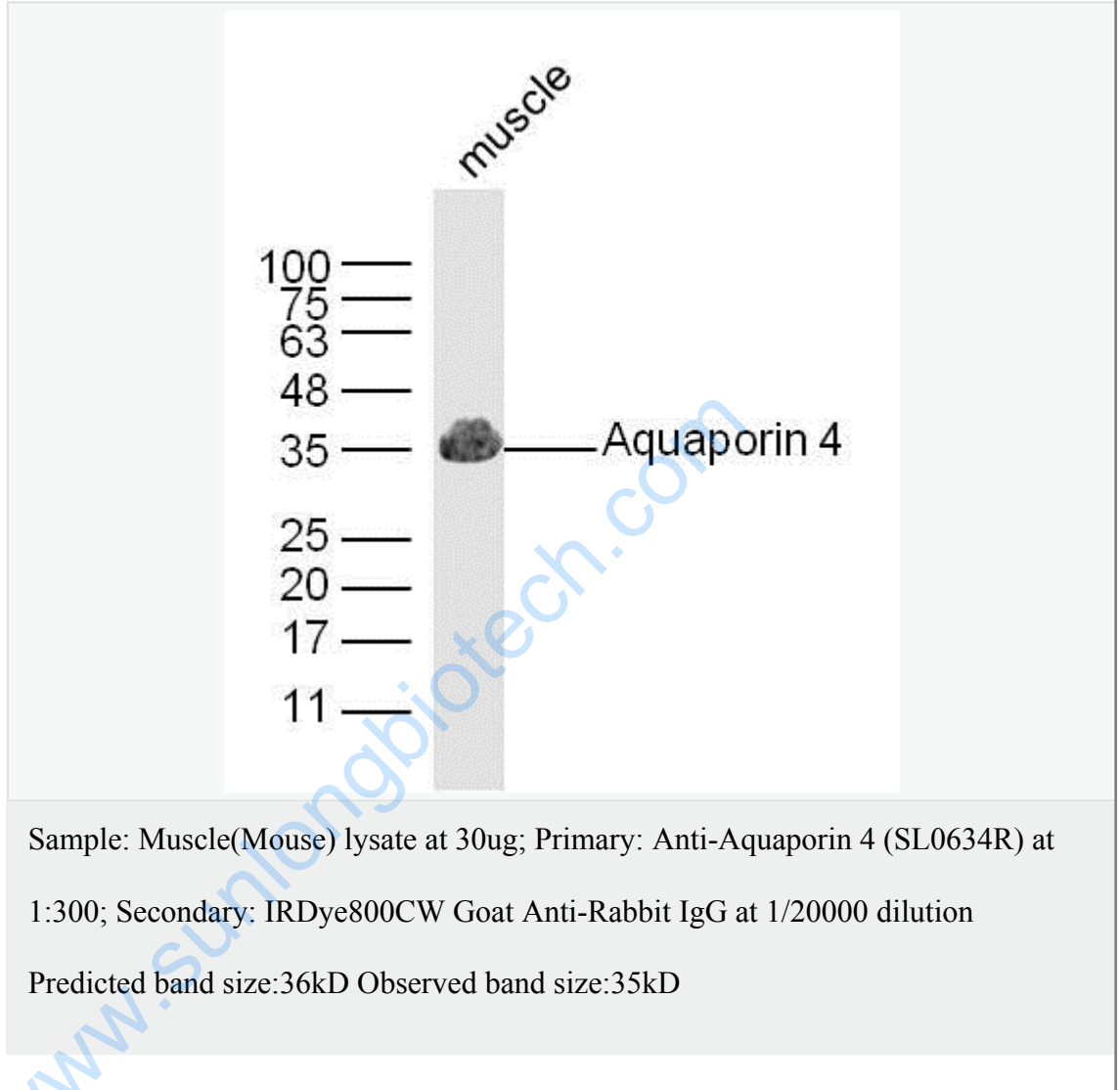
水Channel

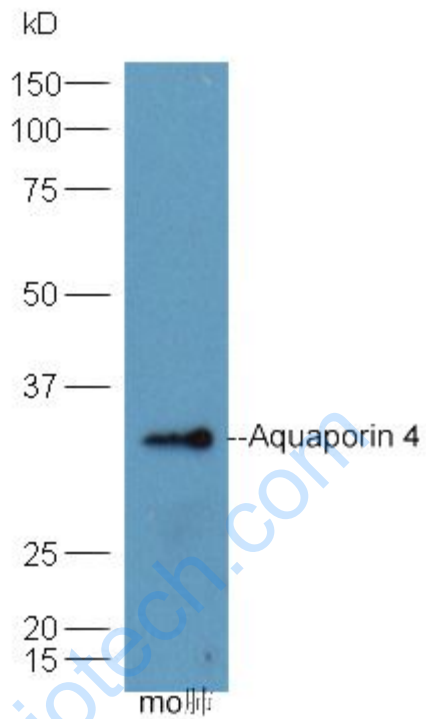
protein4的分布特点与其功能密切相关,可能是脑脊液重吸收、渗透压调节、脑水肿形成等生理、病理过程的分子生物学基础.研究水Channel

protein4可为脑水肿及水代谢疾病提供分子水平的理论依据,同时为临床治疗脑水肿

及水代谢疾病提供一种新途径.

Picture:





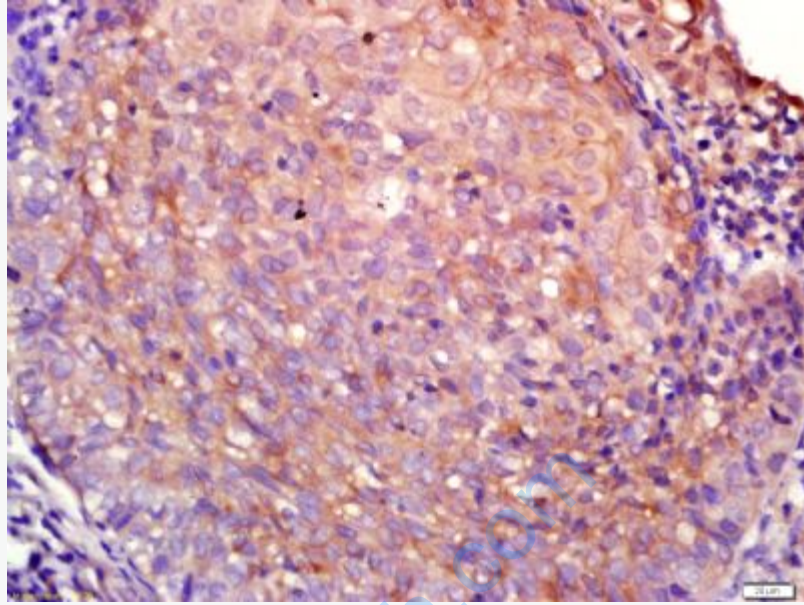
Sample: mouse lung lysate at 30ug;

Primary: Anti-Aquaporin 4 (SL0634R) at 1:300;

Secondary: HRP conjugated Goat-Anti-rabbit IgG(bse-0295G-HRP) at 1: 5000;

Predicted band size:36 kD

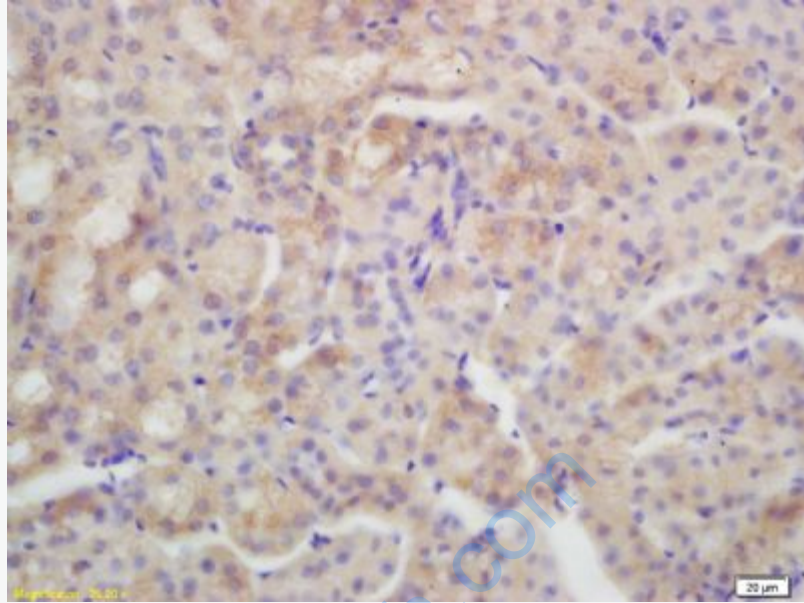
Observed band size:34 kD



Tissue/cell: human laryngocarcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

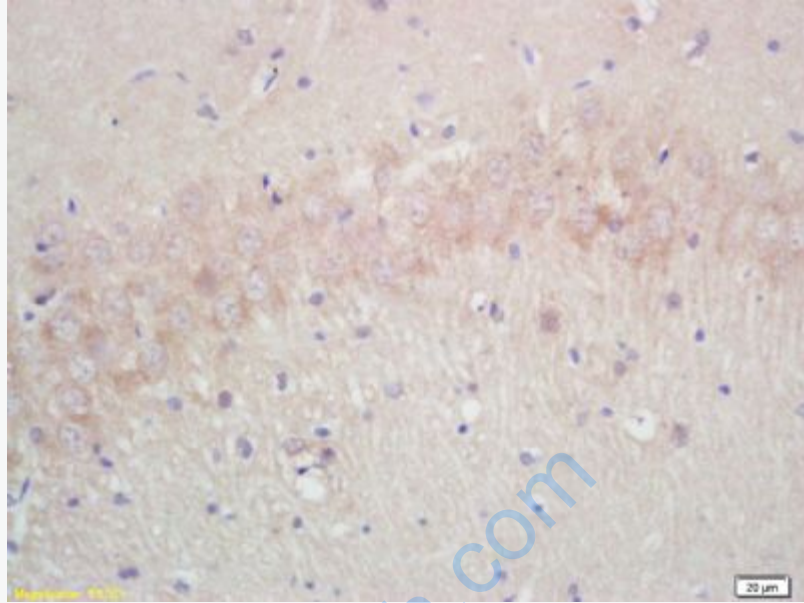
Incubation: Anti-AQP4 Polyclonal Antibody, Unconjugated(SL0634R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



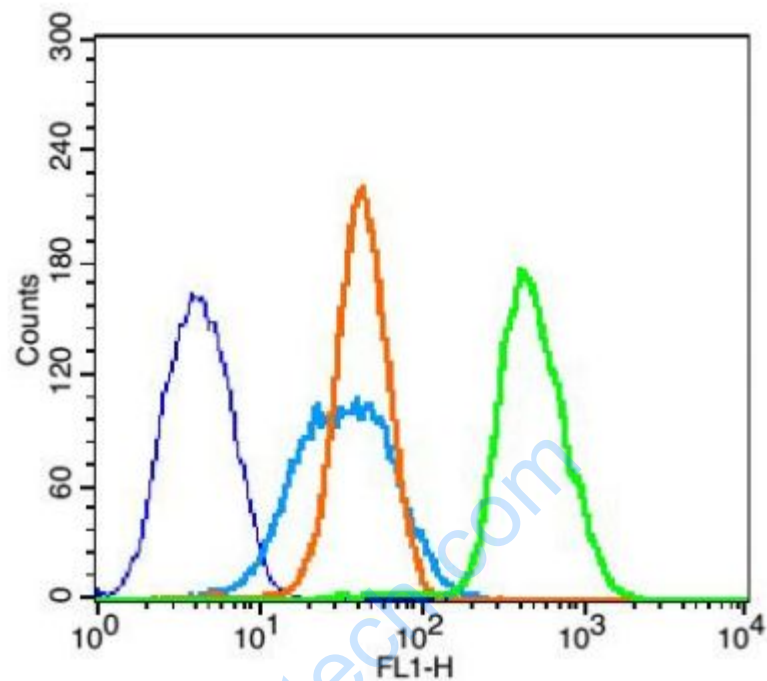
Tissue/cell: mouse kidney tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-AQP4 Polyclonal Antibody, Unconjugated(SL0634R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;
Incubation: Anti-AQP4 Polyclonal Antibody, Unconjugated(SL0634R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control: K562 (blue).

Primary Antibody: Rabbit Anti-Aquaporin 4 antibody (SL0634R); Dilution: 1 μ g in 100 μ L 1X PBS containing 0.5% BSA;

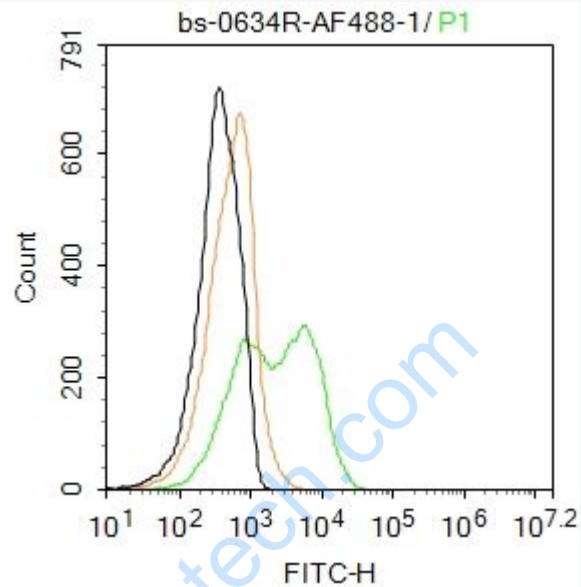
Isotype Control Antibody: Rabbit IgG(orange) ,used under the same conditions;

Secondary Antibody: Goat anti-rabbit IgG-FITC(white blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA.

Protocol

The cells were fixed with 2% paraformaldehyde for 10 min at 37°C. Primary antibody (SL0634R) were incubated for 30 min at room temperature, followed by 1 X PBS containing 0.5% BSA + 10% goat serum (15min) to block non-specific protein-protein interactions. Then the Goat Anti-rabbit IgG/FITC antibody was added into the blocking buffer mentioned above to react with the primary antibody at 1/200 dilution for 30 min at room temperature. Acquisition of 20,000 events was

performed.



Blank control: Molt4.

Primary Antibody (green line): Rabbit Anti-AQP 4 antibody (SL0634R)

Dilution: 1 μ g / 10⁶ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Protocol

The cells were incubated in 5% BSA to block non-specific protein-protein interactions for 30 min at room temperature . Cells stained with Primary Antibody for 30 min at room temperature. Acquisition of 20,000 events was performed.