

For Research Use Only

# Aquaporin 4 Polyclonal antibody

Catalog Number: 16473-1-AP

Featured Product

100 Publications



## Basic Information

### Catalog Number:

16473-1-AP

### Size:

150ul, Concentration: 700 ug/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG9561

### GenBank Accession Number:

BC022286

### GeneID (NCBI):

361

### UNIPROT ID:

P55087

### Full Name:

Aquaporin 4

### Calculated MW:

323 aa, 35 kDa

### Observed MW:

35-37 kDa, 32-34 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB 1:2000-1:10000

IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC 1:100-1:2500

IF-P 1:50-1:500

## Applications

### Tested Applications:

WB, IHC, IF-P, IP, ELISA

### Cited Applications:

WB, IHC, IF, IP

### Species Specificity:

human, mouse, rat

### Cited Species:

human, mouse, rat, pig

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

### Positive Controls:

**WB**: mouse liver tissue, SKOV-3 cells, mouse kidney tissue, mouse heart tissue, mouse brain tissue, rat brain tissue, rat heart tissue

**IP**: mouse heart tissue,

**IHC**: mouse brain tissue, human brain tissue, rat brain tissue, mouse heart tissue, human kidney tissue

**IF-P**: rat brain tissue, mouse brain tissue

## Background Information

Aquaporins are specialized water transport channels in plasma membranes of water-permeable tissues. Aquaporin-4 (AQP4) is the most abundant water channel in the human central nervous system and is important to fluid movements in brain. Aquaporin-4 exists as two isoforms, a long (M1) isoform with translation initiation at Met-1, and a shorter (M23) isoform with translation initiation at Met-23, with molecular weights around 35-37 kDa and 32-34 kDa, respectively.

## Notable Publications

Author	Pubmed ID	Journal	Application
Chengcheng Zhang	26459070	Mol Med Rep	IF
Xue Ma	34526069	J Neuroinflammation	IF
Jiajun Cai	36115513	Brain Res Bull	WB

## Storage

### Storage:

Store at -20°C. Stable for one year after shipment.

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

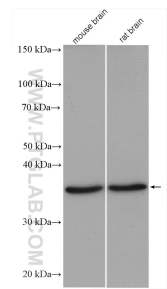
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

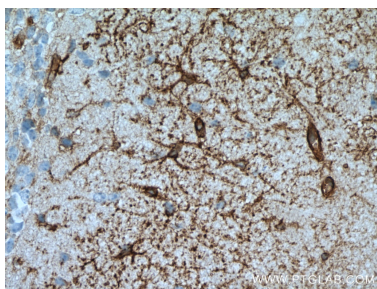
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
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This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

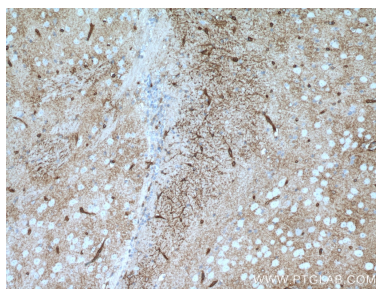
Selected Validation Data



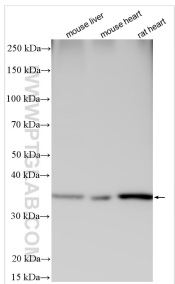
Various lysates were subjected to SDS PAGE followed by western blot with 16473-1-AP (Aquaporin 4 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



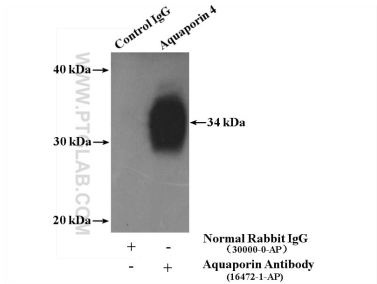
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 16473-1-AP (Aquaporin 4 antibody) at dilution of 1:2000 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



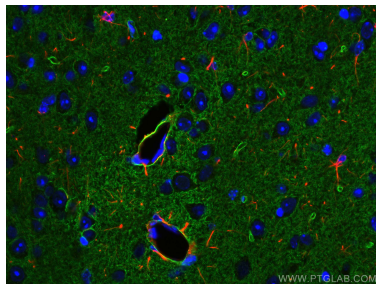
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 16473-1-AP (Aquaporin 4 antibody) at dilution of 1:2000 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



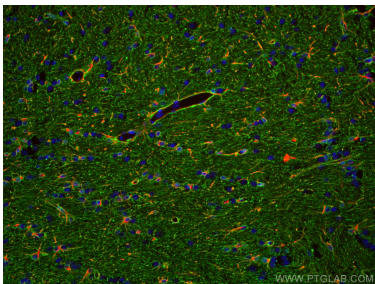
Various lysates were subjected to SDS PAGE followed by western blot with 16473-1-AP (Aquaporin 4 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



IP result of anti-Aquaporin 4 (IP:16473-1-AP, 4ug; Detection:16473-1-AP 1:300) with mouse heart tissue lysate 4000ug.



Immunofluorescent analysis of (4% PFA) fixed mouse brain tissue using Aquaporin 4 antibody (16473-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L), GFAP antibody (60190-1-Ig, Clone: 4B2E10, red).



Immunofluorescent analysis of (4% PFA) fixed rat brain tissue using Aquaporin 4 antibody (16473-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L), GFAP antibody (60190-1-Ig, Clone: 4B2E10, red).