

For Research Use Only

# Kv4.2 Polyclonal antibody

Catalog Number: 21298-1-AP

Featured Product

11 Publications



## Basic Information

### Catalog Number:

21298-1-AP

### Size:

150ul, Concentration: 600 ug/ml by Nanodrop and 333 ug/ml by Bradford method using BSA as the standard;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG15879

### GenBank Accession Number:

BC110449

### GeneID (NCBI):

3751

### UNIPROT ID:

Q9NZV8

### Full Name:

potassium voltage-gated channel, Shal-related subfamily, member 2

### Calculated MW:

630 aa, 71 kDa

### Observed MW:

70-80 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB: 1:500-1:2000

IHC: 1:50-1:500

IF-P: 1:50-1:500

## Applications

### Tested Applications:

WB, IHC, IF-P, ELISA

### Cited Applications:

WB, IHC, IF

### Species Specificity:

human, mouse, rat

### Cited Species:

human, mouse, rat

### Positive Controls:

WB: A549 cells, DU 145 cells, HeLa cells

IHC: mouse brain tissue,

IF-P: mouse brain tissue,

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

## Background Information

Voltage-gated potassium or Kv channels, specifically those mediating low threshold, rapidly inactivating Ito and IA currents, are known to regulate cardiac and neuronal membrane excitability, respectively (PMID: 12829703). Voltage-gated potassium channel subunit Kv4.2, encoded by the KCND2 gene, belongs to the potassium channel family and D (Shal) subfamily. It is a pore-forming alpha subunit of voltage-gated rapidly inactivating A-type potassium channels. Kv4.2 is highly expressed in the brain (PMID: 10551270). It is a major constituent of A-type potassium currents and a key regulator of neuronal membrane excitability (PMID: 22539834).

## Notable Publications

Author	Pubmed ID	Journal	Application
Zhangchi Liu	36332480	Biochem Biophys Res Commun	WB
Durgesh Tiwari	31212067	Neurobiol Dis	
Jing Yang	35132967	JCI Insight	WB,IHC,IF

## 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

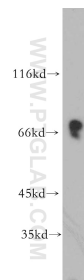
For technical support and original validation data for this product please contact:

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

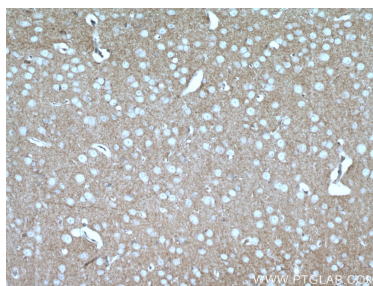
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

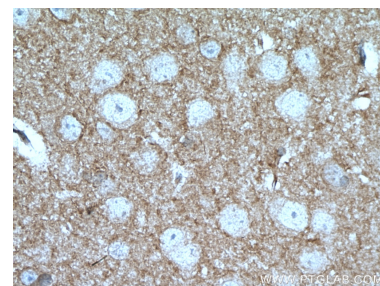
## Selected Validation Data



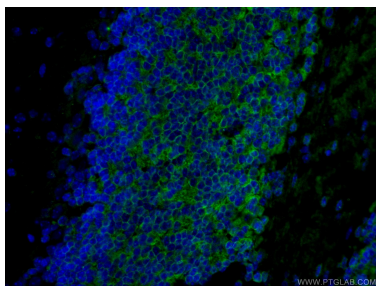
A549 cells were subjected to SDS PAGE followed by western blot with 21298-1-AP (Kv4.2 antibody) at dilution of 1:300 incubated at room temperature for 1.5 hours.



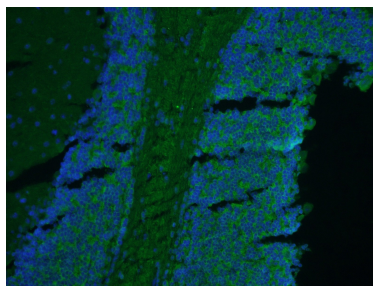
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 21298-1-AP (Kv4.2 antibody) at dilution of 1:200 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



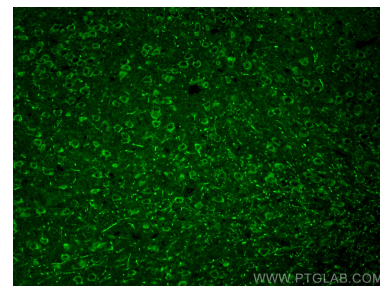
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 21298-1-AP (Kv4.2 antibody) at dilution of 1:200 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed mouse brain tissue using 21298-1-AP (Kv4.2 antibody) at dilution of 1:50 and Alexa Fluor 488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Immunofluorescent analysis of (4% PFA) fixed mouse brain tissue using 21298-1-AP (Kv4.2 antibody) at dilution of 1:50 and Alexa Fluor 488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Immunofluorescent analysis of (4% PFA) fixed mouse brain tissue using Kv4.2 antibody (21298-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).