

For Research Use Only

Kv4.2 Polyclonal antibody

Catalog Number: 21298-1-AP

Featured Product

12 Publications



Basic Information

Catalog Number:

21298-1-AP

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

**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: A549 cells, DU 145 cells, HeLa cells

IHC: mouse brain tissue,

IF-P: mouse brain tissue,

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

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

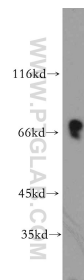
T: 4006900926

E: Proteintech-CN@ptglab.com

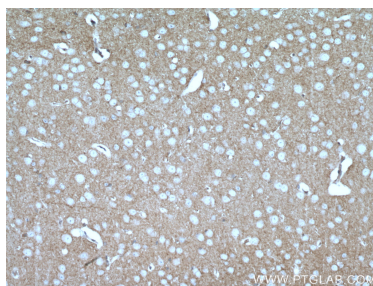
W: ptgcn.com

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

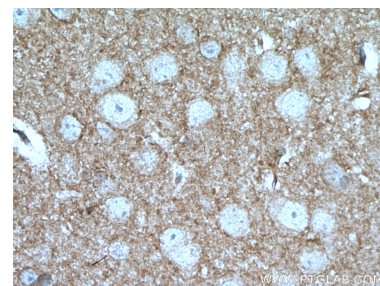
Selected Validation Data



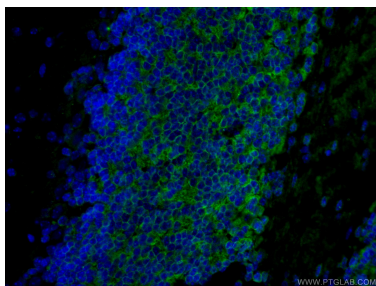
A549 cells were subjected to SDS PAGE followed by western blot with 21298-1-AP (Kv4.2 antibody) at dilution of 1:300 incubated at room temperature for 1.5 hours.



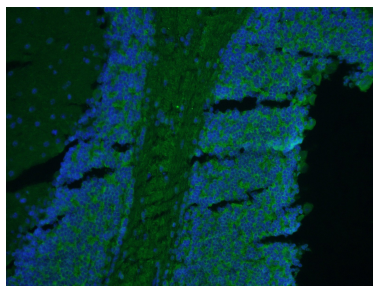
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 21298-1-AP (Kv4.2 antibody) at dilution of 1:200 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



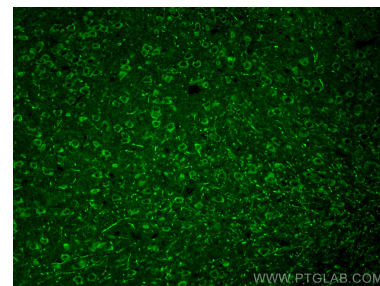
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 21298-1-AP (Kv4.2 antibody) at dilution of 1:200 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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).