

For Research Use Only

# Kv4.2 Recombinant antibody

Catalog Number: 85133-3-RR



## Basic Information

<b>Catalog Number:</b> 85133-3-RR	<b>GenBank Accession Number:</b> BC110449	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ul, Concentration: 1000 µg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 3751	<b>CloneNo.:</b> 242754F4
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> Q9NZV8	<b>Recommended Dilutions:</b> WB 1:1000-1:4000 IHC 1:2000-1:8000 IF-P 1:50-1:500
<b>Isotype:</b> IgG	<b>Full Name:</b> potassium voltage-gated channel, Shal-related subfamily, member 2	
<b>Immunogen Catalog Number:</b> AG15879	<b>Calculated MW:</b> 630 aa, 71 kDa	
	<b>Observed MW:</b> 75 kDa	

## Applications

<b>Tested Applications:</b> WB, IHC, IF-P, ELISA	<b>Positive Controls:</b> WB : HeLa cells, DU 145 cells, A549 cells
<b>Species Specificity:</b> human, mouse	<b>IHC :</b> mouse cerebellum tissue,
<b>Note-IHC:</b> suggested antigen retrieval with <b>TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0</b>	<b>IF-P :</b> mouse brain tissue,

## Background Information

Voltage-gated potassium or Kv channels, specifically those mediating low threshold, rapidly inactivating I<sub>to</sub> and I<sub>A</sub> 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).

## Storage

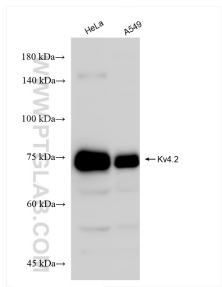
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol  
**Aliquoting is unnecessary for -20°C storage**

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

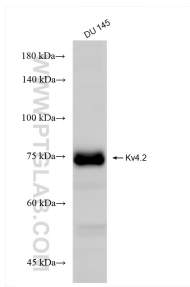
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: proteintech@ptglab.com  
W: ptglab.com

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

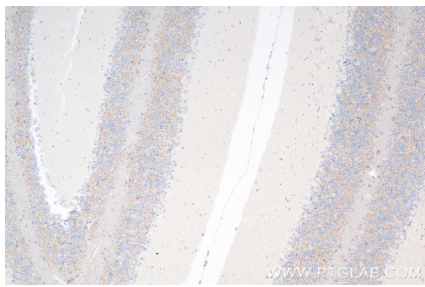
Selected Validation Data



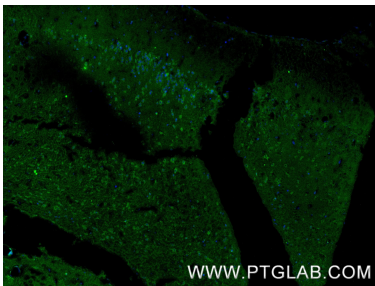
Various lysates were subjected to SDS PAGE followed by western blot with 85133-3-RR (KCND2 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



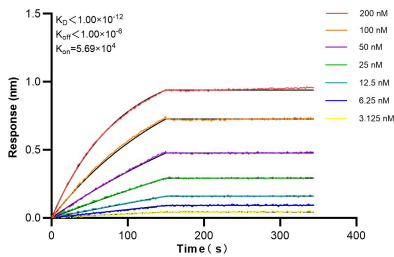
DU 145 cells were subjected to SDS PAGE followed by western blot with 85133-3-RR (KCND2 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded mouse cerebellum tissue slide using 85133-3-RR (Kv4.2 antibody) at dilution of 1:4000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse brain tissue using Kv4.2 antibody (85133-3-RR, Clone: 242754F4) at dilution of 1:200 and Coralite® 488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Biolayer interferometry (BLI) kinetic assays of 85133-3-RR against Human Kv4.2 were performed. The affinity constant is below 1 pM.