

For Research Use Only

Kv4.2 Recombinant antibody

Catalog Number:85133-3-RR



Basic Information

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

Applications

Tested Applications:

WB, IHC, IF-P, ELISA

Species Specificity:

human, mouse

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 : HeLa cells, DU 145 cells, A549 cells

IHC : mouse cerebellum tissue,

IF-P : mouse brain tissue,

Background Information

Voltage-gated potassium or Kv channels, specifically those mediating low threshold, rapidly inactivating I_{to} and I_A 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 pH 7.3.

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

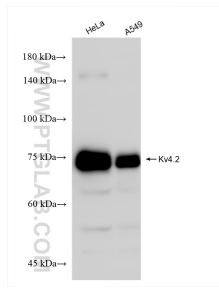
For technical support and original validation data for this product please contact:

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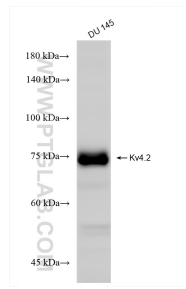
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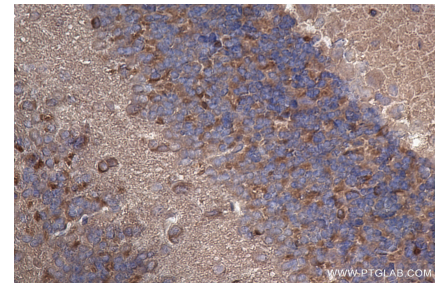
Selected Validation Data



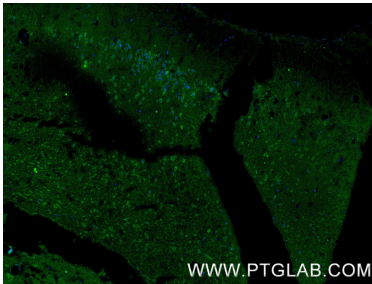
Various lysates were subjected to SDS PAGE followed by western blot with 85133-3-RR (KCND2 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



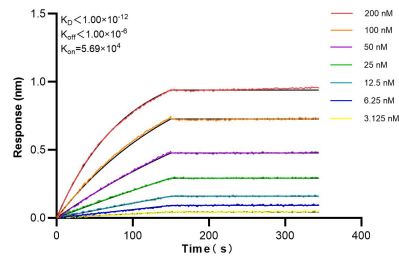
DU 145 cells were subjected to SDS PAGE followed by western blot with 85133-3-RR (KCND2 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded mouse cerebellum tissue slide using 85133-3-RR (Kv4.2 antibody) at dilution of 1:200 (under 40x 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.