

For Research Use Only

# Kv4.2 Recombinant antibody, PBS Only (Detector)

Catalog Number: 85133-3-PBS



## Basic Information

<b>Catalog Number:</b> 85133-3-PBS	<b>GenBank Accession Number:</b> BC110449	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ug, Concentration: 1 mg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 3751	<b>CloneNo.:</b> 242754F4
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> Q9NZV8	
<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

**Tested Applications:**  
WB, IHC, IF-P, Cytometric bead array, Indirect ELISA

**Species Specificity:**  
human, mouse

## Product Information

85133-3-PBS targets Kv4.2 as part of a matched antibody pair:

MP01834-2: 85133-4-PBS capture and 85133-3-PBS detection (validated in Cytometric bead array)

Unconjugated rabbit recombinant monoclonal antibody in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation. Created using Proteintech's proprietary in-house recombinant technology. Recombinant production enables unrivalled batch-to-batch consistency, easy scale-up, and future security of supply.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications. Antibody use should be optimized by the end user for each application and assay.

## 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

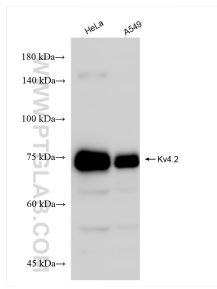
**Storage:**  
Store at -80°C.

**Storage Buffer:**  
PBS Only

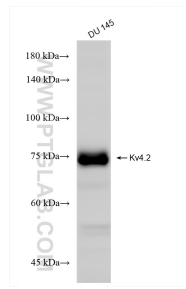
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)      E: proteintech@ptglab.com  
W: ptglab.com

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

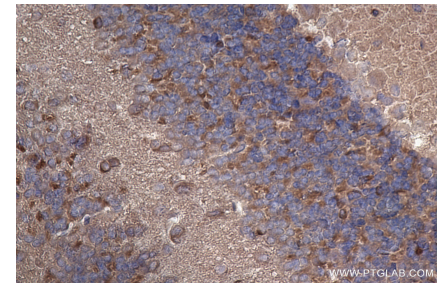
## Selected Validation Data



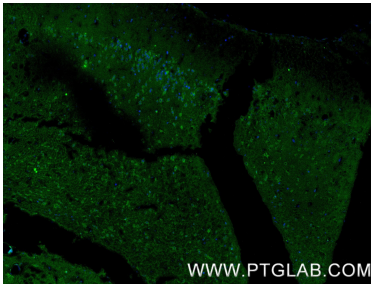
Various lysates were subjected to SDS PAGE followed by western blot with 85133-3-RR (KCND2 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 85133-3-PBS in a different storage buffer formulation.



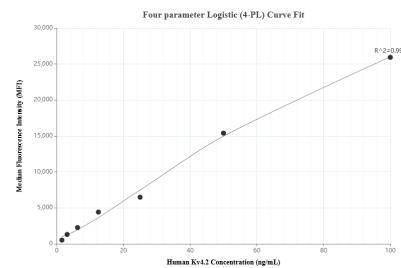
DU 145 cells were subjected to SDS PAGE followed by western blot with 85133-3-RR (KCND2 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 85133-3-PBS in a different storage buffer formulation.



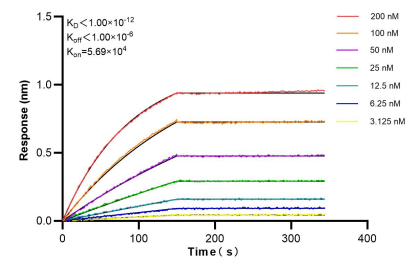
Immunohistochemical analysis of paraffin-embedded mouse cerebellum tissue slide using 85133-3-RR (Kv4.2 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 85133-3-PBS in a different storage buffer formulation.



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). This data was developed using the same antibody clone with 85133-3-PBS in a different storage buffer formulation.



Cytometric bead array standard curve of MP01834-2, Kv4.2 Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 85133-4-PBS. Detection antibody: 85133-3-PBS. Standard: Ag15879. Range: 1.563-100 ng/mL.



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