

Kv4.2 Recombinant antibody, PBS Only (Detector)

Catalog Number: 85133-3-PBS

Basic Information

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

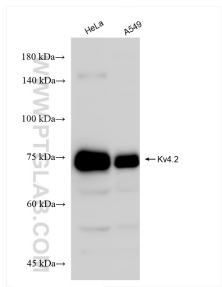
Storage

Storage:
Store at -80°C.
Storage Buffer:
PBS only

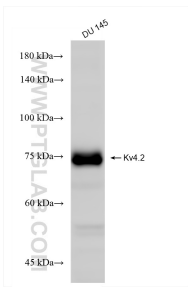
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

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

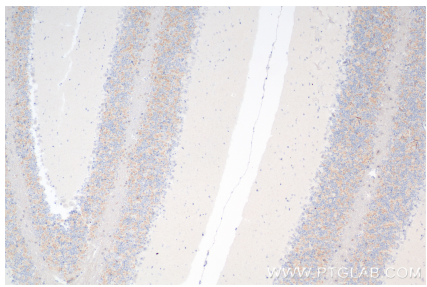
Selected Validation Data



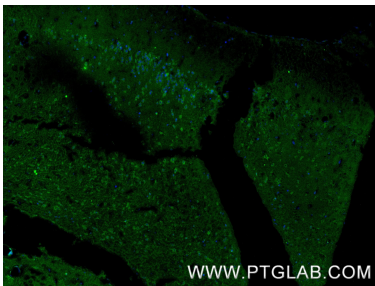
Various lysates were subjected to SDS PAGE followed by western blot with 85133-3-RR (KCND2 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 85133-3-PBS in a different storage buffer formulation.



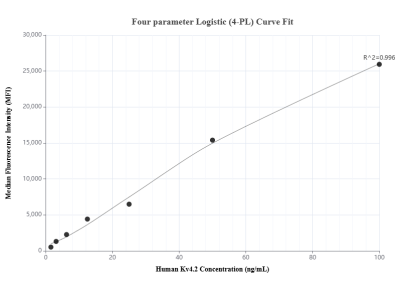
DU 145 cells were subjected to SDS PAGE followed by western blot with 85133-3-RR (KCND2 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 85133-3-PBS in a different storage buffer formulation.



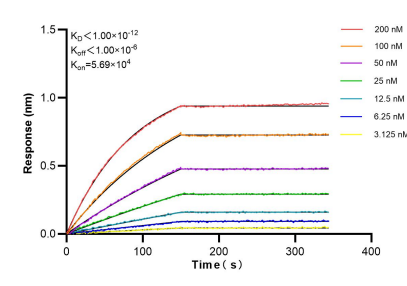
Immunohistochemical analysis of paraffin-embedded mouse cerebellum tissue slide using 85133-3-RR (Kv4.2 antibody) at dilution of 1:4000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 85133-3-PBS in a different 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.



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