Product Name: Kv2.1/KCNB1 Rabbit Polyclonal Antibody
Catalog #: APRab13164

Summary

Production Name	Kv2.1/KCNB1 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	KCNB1
Alternative Names	Potassium voltage-gated channel subfamily B member 1 (Delayed rectifier potassium channel 1) (DRK1) (h-DRK1) (Voltage-gated potassium channel subunit Kv2.1)
Gene ID	3745.0
SwissProt ID	Q14721.Synthesized peptide derived from human Kv2.1/KCNB1 Polyclonal

Application

Dilution Ratio	WB 1:500-2000
Molecular Weight	95kD

Background

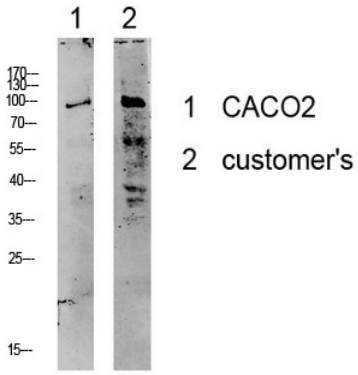
Voltage-gated potassium (Kv) channels represent the most complex class of voltage-gated ion channels from both

functional and structural standpoints. Their diverse functions include regulating neurotransmitter release, heart rate, insulin secretion, neuronal excitability, epithelial electrolyte transport, smooth muscle contraction, and cell volume. Four sequence-related potassium channel genes - shaker, shaw, shab, and shal - have been identified in Drosophila, and each has been shown to have human homolog(s). This gene encodes a member of the potassium channel, voltage-gated, shab-related subfamily. This member is a delayed rectifier potassium channel and its activity is modulated by some other family members. [provided by RefSeq, Jul 2008],domain:The segment S4 is probably the voltage-sensor and is characterized by a series of positively charged amino acids at every third position.,domain:The tail may be important in modulation of channel activity and/or targeting of the channel to specific subcellular compartments.,function:Mediates the voltage-dependent potassium ion permeability of excitable membranes. Channels open or close in response to the voltage difference across the membrane, letting potassium ions pass in accordance with their electrochemical gradient.,PTM:Highly phosphorylated on serine residues in the C-terminal. Differential phosphorylation on a subset of serines allows graded activity-dependent regulation of channel gating. Phosphorylation on Ser-457, Ser-541, Ser-567, Ser-607, Ser-656 and Ser-720 as well as the N-terminal Ser-15 are all regulated by calcineurin-mediated dephosphorylation. Particularly, Ser-607 and Tyr-128 are significant sites of voltage-gated regulation through phosphorylation/ dephosphorylation activities. Tyr-128 can be dephosphorylated by PTPalpha and cyt-PTPepsilon. Phosphorylation levels on Ser-607 are supersensitive to neuronal activity. Phosphorylation on Ser-567 is reduced during postnatal development with low levels at P2 and P5. Levels then increase to reach adult levels by P14. Phosphorylation levels on Ser-564 and Ser-607 are greatly reduced during seizures, by 40% and 85% respectively.,similarity:Belongs to the potassium channel family. B (Shab) subfamily.,subunit:Heteromultimer with KCNG2, KCNG3, KCNG4, KCNS1, KCNS2, KCNS3 and KCNV2.,

Research Area

Taste transduction;

Image Data



Western blot analysis of various lysate, antibody was diluted at 1000. Secondary antibody was diluted at 1:20000

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Note

For research use only.