

Anti-KCNB2 antibody



Description	Unconjugated Rabbit polyclonal to KCNB2
Model	STJ191182
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	ELISA, WB
Immunogen	Synthesized peptide derived from human KCNB2 protein.
Immunogen Region	170-250aa
Gene ID	9312
Gene Symbol	KCNB2
Dilution range	WB 1:500-2000 ELISA 1:5000-20000
Specificity	KCNB2 Polyclonal Antibody detects endogenous levels of protein.
Purification	KCNB2 antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Potassium voltage-gated channel subfamily B member 2 Voltage-gated potassium channel subunit Kv2.2
Molecular Weight	100 kDa
Clonality	Polyclonal
Conjugation	Unconjugated

Isotype	IgG
Formulation	Liquid form in PBS containing 50% glycerol, and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:6232OMIM:607738
Alternative Names	Potassium voltage-gated channel subfamily B member 2 Voltage-gated potassium channel subunit Kv2.2
Function	Voltage-gated potassium channel that mediates transmembrane potassium transport in excitable membranes, primarily in the brain and smooth muscle cells. Channels open or close in response to the voltage difference across the membrane, letting potassium ions pass in accordance with their electrochemical gradient. Homotetrameric channels mediate a delayed-rectifier voltage-dependent outward potassium current that display rapid activation and slow inactivation in response to membrane depolarization. Can form functional homotetrameric and heterotetrameric channels that contain variable proportions of KCNB1; channel properties depend on the type of alpha subunits that are part of the channel. Can also form functional heterotetrameric channels with other alpha subunits that are non-conducting when expressed alone, such as KCNS1 and KCNS2, creating a functionally diverse range of channel complexes. In vivo, membranes probably contain a mixture of heteromeric potassium channel complexes, making it difficult to assign currents observed in intact tissues to any particular potassium channel family member. Contributes to the delayed-rectifier voltage-gated potassium current in cortical pyramidal neurons and smooth muscle cells.
Sequence and Domain Family	The transmembrane segment S4 functions as voltage-sensor and is characterized by a series of positively charged amino acids at every third position. Channel opening and closing is effected by a conformation change that affects the position and orientation of the voltage-sensor paddle formed by S3 and S4 within the membrane. A transmembrane electric field that is positive inside would push the positively charged S4 segment outwards, thereby opening the pore, while a field that is negative inside would pull the S4 segment inwards and close the pore. Changes in the position and orientation of S4 are then transmitted to the activation gate formed by the inner helix bundle via the S4-S5 linker region.
Cellular Localization	Cell membrane Perikaryon Cell projection, dendrite. Localized uniformly throughout cell bodies and dendrites. Colocalizes with KCNB1 to high-density somatodendritic clusters on cortical pyramidal neurons.
Post-translational Modifications	Phosphorylated.