

**KCNB2 Antibody(N-term) Blocking peptide**  
Synthetic peptide  
Catalog # BP19554a

## Specification

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### KCNB2 Antibody(N-term) Blocking peptide - Product Information

Primary Accession [O92953](#)

### KCNB2 Antibody(N-term) Blocking peptide - Additional Information

Gene ID 9312

#### Other Names

Potassium voltage-gated channel subfamily B member 2, Voltage-gated potassium channel subunit Kv22, KCNB2

#### Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

#### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

#### Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

### KCNB2 Antibody(N-term) Blocking peptide - Protein Information

Name KCNB2 ([HGNC:6232](#))

#### 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.

#### Cellular Location

Cell membrane {ECO:0000250|UniProtKB:Q63099}; Multi-pass membrane protein

{ECO:0000250|UniProtKB:Q63099}. Perikaryon {ECO:0000250|UniProtKB:Q63099}. Cell projection, dendrite {ECO:0000250|UniProtKB:Q63099}. Note=Localized uniformly throughout cell bodies and dendrites. Colocalizes with KCNB1 to high-density somatodendritic clusters on cortical pyramidal neurons {ECO:0000250|UniProtKB:Q63099}

### **KCNB2 Antibody(N-term) Blocking peptide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

### **KCNB2 Antibody(N-term) Blocking peptide - Images**

### **KCNB2 Antibody(N-term) Blocking peptide - 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 a 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. The gene is expressed in gastrointestinal smooth muscle cells.

### **KCNB2 Antibody(N-term) Blocking peptide - References**

Rose, J.E., et al. *Mol. Med.* 16 (7-8), 247-253 (2010) ; Cirulli, E.T., et al. *Eur. J. Hum. Genet.* 18(7):815-820(2010) ; Baranzini, S.E., et al. *Hum. Mol. Genet.* 18(4):767-778(2009) ; Nyholt, D.R., et al. *Hum. Mol. Genet.* 17(21):3318-3331(2008) ; Wu, C., et al. *Proteomics* 7(11):1775-1785(2007)