

**KCNE2 Antibody (C-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP19267b****Specification**

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**KCNE2 Antibody (C-term) Blocking Peptide - Product Information**Primary Accession [Q9Y6J6](#)**KCNE2 Antibody (C-term) Blocking Peptide - Additional Information**

Gene ID 9992

**Other Names**

Potassium voltage-gated channel subfamily E member 2, MinK-related peptide 1, Minimum potassium ion channel-related peptide 1, Potassium channel subunit beta MiRP1, KCNE2

**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.

**KCNE2 Antibody (C-term) Blocking Peptide - Protein Information**

Name KCNE2

**Function**

Ancillary protein that assembles as a beta subunit with a voltage-gated potassium channel complex of pore-forming alpha subunits. Modulates the gating kinetics and enhances stability of the channel complex. Assembled with KCNB1 modulates the gating characteristics of the delayed rectifier voltage-dependent potassium channel KCNB1. Associated with KCNH2/HERG is proposed to form the rapidly activating component of the delayed rectifying potassium current in heart (IKr). May associate with KCNQ2 and/or KCNQ3 and modulate the native M-type current. May associate with HCN1 and HCN2 and increase potassium current. Interacts with KCNQ1; forms a heterooligomer complex leading to currents with an apparently instantaneous activation, a rapid deactivation process and a linear current-voltage relationship and decreases the amplitude of the outward current (PubMed:<a href="http://www.uniprot.org/citations/11101505" target="\_blank">11101505</a>). KCNQ1-KCNE2 channel associates with Na(+)-coupled myo-inositol symporter in the apical membrane of choroid plexus epithelium and regulates the myo-inositol gradient between blood and cerebrospinal fluid with an impact on neuron excitability.

**Cellular Location**

Cell membrane; Single-pass type I membrane protein {ECO:0000250|UniProtKB:P63161} Apical cell membrane {ECO:0000250|UniProtKB:Q9D808}; Single-pass membrane protein.

Note=Colocalizes with KCNB1 at the plasma membrane. {ECO:0000250|UniProtKB:P63161}

#### **Tissue Location**

Highly expressed in brain, heart, skeletal muscle, pancreas, placenta, kidney, colon and thymus. A small but significant expression is found in liver, ovary, testis, prostate, small intestine and leukocytes. Very low expression, nearly undetectable, in lung and spleen.

#### **KCNE2 Antibody (C-term) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

#### **KCNE2 Antibody (C-term) Blocking Peptide - Images**

#### **KCNE2 Antibody (C-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. This gene encodes a member of the potassium channel, voltage-gated, Isk-related subfamily. This member is a small integral membrane subunit that assembles with the KCNH2 gene product, a pore-forming protein, to alter its function. This gene is expressed in heart and muscle and the gene mutations are associated with cardiac arrhythmia.

#### **KCNE2 Antibody (C-term) Blocking Peptide - References**

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010) Albert, C.M., et al. Circ Arrhythm Electrophysiol 3(3):222-229(2010) Subbiah, R.N., et al. Can J Cardiol 26(4):208-212(2010) Tam, G.W., et al. Biochem. Soc. Trans. 38(2):445-451(2010) Roepke, T.K., et al. PLoS ONE 5 (7), E11451 (2010) :