

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

KCNE2 Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [O9Y6J6](#)**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 InformationName KCNE2 ([HGNC:6242](#))**Function**

Ancillary protein that functions as a regulatory subunit of the voltage-gated potassium (Kv) channel complex composed of pore-forming and potassium-conducting alpha subunits and of regulatory beta subunits (PubMed: [10219239](http://www.uniprot.org/citations/10219239), PubMed: [11034315](http://www.uniprot.org/citations/11034315), PubMed: [11101505](http://www.uniprot.org/citations/11101505), PubMed: [12185453](http://www.uniprot.org/citations/12185453), PubMed: [20533308](http://www.uniprot.org/citations/20533308)). KCNE2 beta subunit modulates the gating kinetics and enhances stability of the channel complex (PubMed: [10219239](http://www.uniprot.org/citations/10219239), PubMed: [11034315](http://www.uniprot.org/citations/11034315), PubMed: [11101505](http://www.uniprot.org/citations/11101505), PubMed: [12185453](http://www.uniprot.org/citations/12185453), PubMed: [20533308](http://www.uniprot.org/citations/20533308)). Alters the gating of the delayed rectifier Kv channel containing KCNB1 alpha subunit (PubMed: [11101505](http://www.uniprot.org/citations/11101505), PubMed: [20533308](http://www.uniprot.org/citations/20533308)). Associates

with KCNH2/HERG alpha subunit Kv channel to form the rapidly activating component of the delayed rectifying potassium current (IKr) in heart (PubMed:10219239, PubMed:12185453). May associate with KCNQ2 and/or KCNQ3 alpha subunits to modulate the native M-type current (PubMed:11034315). May associate with HCN1 and HCN2 channel subunits to increase potassium current (By similarity). Forms a heterooligomer complex with KCNQ1/KVLQT1 alpha subunits which leads 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:11101505). 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 (By similarity).

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) :