10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

KCNQ3 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP14685b

Specification

KCNQ3 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession O43525

KCNQ3 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 3786

Other Names
Potassium voltage-gated channel subfamily KQT member 3, KQT-like 3, Potassium channel subunit alpha KvLQT3, Voltage-gated potassium channel subunit Kv73, KCNQ3

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.

KCNQ3 Antibody (C-term) Blocking Peptide - Protein Information

Name KCNQ3 (HGNC:6297)

Function
Associates with KCNQ2 or KCNQ5 to form a potassium channel with essentially identical properties to the channel underlying the native M-current, a slowly activating and deactivating potassium conductance which plays a critical role in determining the subthreshold electrical excitability of neurons as well as the responsiveness to synaptic inputs. Therefore, it is important in the regulation of neuronal excitability. KCNQ2-KCNQ3 channel is selectively permeable to other cations besides potassium, in decreasing order of affinity K(+) > Rb(+) > Cs(+) > Na(+). Associates with Na(+)-coupled myo-inositol symporter SLC5A3 forming a coregulatory complex that alters ion selectivity, increasing Na(+) and Cs(+) permeation relative to K(+) permeation (PubMed:28793216).

Cellular Location
Cell membrane; Multi-pass membrane protein

Tissue Location
Predominantly expressed in brain.

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KCNQ3 Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

KCNQ3 Antibody (C-term) Blocking Peptide - Images

KCNQ3 Antibody (C-term) Blocking Peptide - Background

The M channel is a slowly activating and deactivatingpotassium channel that plays a critical role in the regulation ofneuronal excitability. The M channel is formed by the associationof the protein encoded by this gene and one of two related proteinsencoded by the KCNQ2 and KCNQ5 genes, both integral membraneproteins. M channel currents are inhibited by M1 muscarinicacetylcholine receptors and activated by retigabine, a novelanti-convulsant drug. Defects in this gene are a cause of benignfamilial neonatal convulsions type 2 (BFNC2), also known asepilepsy, benign neonatal type 2 (EBN2).

KCNQ3 Antibody (C-term) Blocking Peptide - References

Bailey, S.D., et al. Diabetes Care (2010) In press :Gomez-Posada, J.C., et al. J. Neurosci. 30(27):9316-9323(2010)Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)Hahn, A., et al. Brain Dev. 31(7):515-520(2009)