

**KCNQ3 Antibody (C-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP14685b****Specification**

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**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:<a href="http://www.uniprot.org/citations/28793216" target="\_blank">28793216</a>).

**Cellular Location**

Cell membrane; Multi-pass membrane protein

**Tissue Location**

Predominantly expressed in brain.

## **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 deactivating potassium channel that plays a critical role in the regulation of neuronal excitability. The M channel is formed by the association of the protein encoded by this gene and one of two related proteins encoded by the KCNQ2 and KCNQ5 genes, both integral membrane proteins. M channel currents are inhibited by M1 muscarinic acetylcholine receptors and activated by retigabine, a novel anti-convulsant drug. Defects in this gene are a cause of benign familial neonatal convulsions type 2 (BFNC2), also known as epilepsy, 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)