

KCNC3 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP14547b**Specification**

KCNC3 Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [Q14003](#)**KCNC3 Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 3748**Other Names**

Potassium voltage-gated channel subfamily C member 3, KSHIID, Voltage-gated potassium channel subunit Kv33, KCNC3

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.

KCNC3 Antibody (C-term) Blocking Peptide - Protein Information**Name** KCNC3**Function**

Voltage-gated potassium channel that plays an important role in the rapid repolarization of fast-firing brain neurons. The channel opens in response to the voltage difference across the membrane, forming a potassium-selective channel through which potassium ions pass in accordance with their electrochemical gradient. The channel displays rapid activation and inactivation kinetics (PubMed: [10712820](http://www.uniprot.org/citations/10712820), PubMed: [26997484](http://www.uniprot.org/citations/26997484), PubMed: [22289912](http://www.uniprot.org/citations/22289912), PubMed: [23734863](http://www.uniprot.org/citations/23734863), PubMed: [16501573](http://www.uniprot.org/citations/16501573), PubMed: [19953606](http://www.uniprot.org/citations/19953606), PubMed: [21479265](http://www.uniprot.org/citations/21479265), PubMed: [25756792](http://www.uniprot.org/citations/25756792)). It plays a role in the regulation of the frequency, shape and duration of action potentials in Purkinje cells. Required for normal survival of cerebellar neurons, probably via its role in regulating the duration and frequency of action potentials that in turn regulate the activity of voltage-gated Ca(2+) channels and cellular Ca(2+) homeostasis (By similarity). Required for normal motor function (PubMed: [25756792](#)).

[23734863](http://www.uniprot.org/citations/23734863), PubMed: [16501573](http://www.uniprot.org/citations/16501573), PubMed: [19953606](http://www.uniprot.org/citations/19953606), PubMed: [21479265](http://www.uniprot.org/citations/21479265), PubMed: [25756792](http://www.uniprot.org/citations/25756792)). Plays a role in the reorganization of the cortical actin cytoskeleton and the formation of actin veil structures in neuronal growth cones via its interaction with HAX1 and the Arp2/3 complex (PubMed: [26997484](http://www.uniprot.org/citations/26997484)).

Cellular Location

Cell membrane; Multi-pass membrane protein. Presynaptic cell membrane {ECO:0000250|UniProtKB:Q63959}; Multi-pass membrane protein. Perikaryon {ECO:0000250|UniProtKB:Q63959}. Cell projection, axon {ECO:0000250|UniProtKB:Q63959}. Cell projection, dendrite {ECO:0000250|UniProtKB:Q63959}. Cell projection, dendritic spine membrane {ECO:0000250|UniProtKB:Q01956}; Multi-pass membrane protein. Cytoplasm, cell cortex. Cytoplasm, cytoskeleton. Note=Detected on Purkinje cell dendritic spines, positioned perisynaptically but also in extrasynaptic positions along the spine membranes (By similarity). Detected at presynaptic calices of Held (By similarity). Colocalizes with the cortical actin cytoskeleton and the Arp2/3 complex (PubMed:26997484) {ECO:0000250|UniProtKB:Q01956, ECO:0000250|UniProtKB:Q63959, ECO:0000269|PubMed:26997484}

KCNC3 Antibody (C-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

KCNC3 Antibody (C-term) Blocking Peptide - Images

KCNC3 Antibody (C-term) Blocking Peptide - Background

The Shaker gene family of Drosophila encodes components of voltage-gated potassium channels and is comprised of four subfamilies. Based on sequence similarity, this gene is similar to one of these subfamilies, namely the Shaw subfamily. The protein encoded by this gene belongs to the delayed rectifier class of channel proteins and is an integral membrane protein that mediates the voltage-dependent potassium ion permeability of excitable membranes.

KCNC3 Antibody (C-term) Blocking Peptide - References

Figueroa, K.P., et al. Hum. Mutat. 31(2):191-196(2010) Waters, M.F., et al. Cerebellum 7(2):165-169(2008) Waters, M.F., et al. Nat. Genet. 38(4):447-451(2006) Gutman, G.A., et al. Pharmacol. Rev. 57(4):473-508(2005) Brusco, A., et al. Arch. Neurol. 61(5):727-733(2004)