

KCNC3 Antibody (C-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14547b**Specification**

KCNC3 Antibody (C-term) - Product Information

Application	WB,E
Primary Accession	Q14003
Other Accession	NP_004968.2
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	80578
Antigen Region	639-667

KCNC3 Antibody (C-term) - Additional Information**Gene ID** 3748**Other Names**

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

Target/Specificity

This KCNC3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 639-667 amino acids from the C-terminal region of human KCNC3.

Dilution

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

KCNC3 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

KCNC3 Antibody (C-term) - 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](#), PubMed:[16501573](#), PubMed:[19953606](#), PubMed:[21479265](#), PubMed:[22289912](#), PubMed:[23734863](#), PubMed:[25756792](#), PubMed:[26997484](#)). 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:[16501573](#), PubMed:[19953606](#), PubMed:[21479265](#), PubMed:[23734863](#), PubMed:[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](#)).

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}

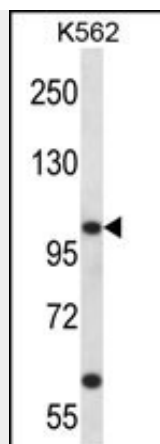
KCNC3 Antibody (C-term) - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

KCNC3 Antibody (C-term) - Images





KCNC3 Antibody (C-term) (Cat. #AP14547b) western blot analysis in K562 cell line lysates (35ug/lane). This demonstrates the KCNC3 antibody detected the KCNC3 protein (arrow).

KCNC3 Antibody (C-term) - 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) - 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)