Datasheet for ABIN7554264

KCNC2 Protein (AA 1-638) (His tag)

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Overview

Quantity:	1 mg
Target:	KCNC2
Protein Characteristics:	AA 1-638
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This KCNC2 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant KCNC2 Protein expressed in mammalian cells.
Sequence:	MGKIENNERV ILNVGGTRHE TYRSTLKTLP GTRLALLASS EPPGDCLTTA GDKLQPSPPP LSPPPRAPPL SPGPGGCFEG GAGNCSSRGG RASDHPGGGR EFFFDRHPGV FAYVLNYYRT GKLHCPADVC GPLFEEELAF WGIDETDVEP CCWMTYRQHR DAEEALDIFE TPDLIGGDPG DDEDLAAKRL GIEDAAGLGG PDGKSGRWRR LQPRMWALFE DPYSSRAARF IAFASLFFIL VSITTFCLET HEAFNIVKNK TEPVINGTSV VLQYEIETDP ALTYVEGVCV VWFTFEFLVR IVFSPNKLEF IKNLLNIIDF VAILPFYLEV GLSGLSSKAA KDVLGFLRVV RFVRILRIFK LTRHFVGLRV LGHTLRASTN EFLLLIIFLA LGVLIFATMI YYAERVGAQP NDPSASEHTQ FKNIPIGFWW AVVTMTTLGY GDMYPQTWSG MLVGALCALA GVLTIAMPVP VIVNNFGMYY SLAMAKQKLP RKRKKHIPPA PQASSPTFCK TELNMACNST QSDTCLGKDN RLLEHNRSVL SGDDSTGSEP PLSPPERLPI RRSSTRDKNR RGETCFLLTT GDYTCASDGG IRKGYEKSRS LNNIAGLAGN ALRLSPVTSP YNSPCPLRRS RSPIPSIL **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein**

Product Details

	could make another tag necessary. In case you have a special request, please contact us.
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalian cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • State-of-the-art algorithm used for plasmid design (Gene synthesis). This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein. If you are not interested in a full length protein, please contact us for individual protein fragments. The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	KCNC2
Alternative Name:	KCNC2 (KCNC2 Products)
Background:	Potassium voltage-gated channel subfamily C member 2 (Shaw-like potassium channel) (Voltage-gated potassium channel Kv3.2),FUNCTION: Voltage-gated potassium channel that mediates transmembrane potassium transport in excitable membranes, primarily in the brain. Contributes to the regulation of the fast action potential repolarization and in sustained high-frequency firing in neurons of the central nervous system. Homotetramer channels mediate delayed-rectifier voltage-dependent potassium currents that activate rapidly at high-threshold voltages and inactivate slowly. Forms tetrameric channels through which potassium ions pass in accordance with their electrochemical gradient. The channel alternates between opened and closed conformations in response to the voltage difference across the membrane (PubMed:15709110). Can form functional homotetrameric and heterotetrameric channels that

Target Details

	contain variable proportions of KCNC1, and possibly other family members as well, channel properties depend on the type of alpha subunits that are part of the channel. Channel properties may be modulated either by the association with ancillary subunits, such as KCNE1, KCNE2 or KCNE3 or indirectly by nitric oxide (NO) through a cGMP- and PKG-mediated signaling cascade, slowing channel activation and deactivation of delayed rectifier potassium channels (By similarity). Contributes to fire sustained trains of very brief action potentials at high frequency in retinal ganglion cells, thalamocortical and suprachiasmatic nucleus (SCN) neurons and in hippocampal and neocortical interneurons (PubMed:15709110). Sustained maximal action potential firing frequency in inhibitory hippocampal interneurons is negatively modulated by histamine H2 receptor activation in a cAMP- and protein kinase (PKA) phosphorylation-dependent manner. Plays a role in maintaining the fidelity of synaptic transmission in neocortical GABAergic interneurons by generating action potential (AP) repolarization at nerve terminals, thus reducing spike-evoked calcium influx and GABA neurotransmitter release. Required for long-range synchronization of gamma oscillations over distance in the neocortex. Contributes to the modulation of the circadian rhythm of spontaneous action potential firing in suprachiasmatic nucleus (SCN) neurons in a light-dependent manner (By similarity). {ECO:0000250|UniProtKB:P22462, ECO:0000250|UniProtKB:Q14B80, ECO:0000269|PubMed:15709110, ECO:0000305|PubMed:10414303, ECO:0000305|PubMed:11506885}.
Molecular Weight:	70.2 kDa
UniProt:	Q96PR1

Application Details

Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C

Handling

Storage Comment:	Store at -80°C.
Expiry Date:	12 months