Datasheet for ABIN7554287

KCNQ2 Protein (AA 1-872) (His tag)

Go to Product page

Overview

Quantity:	1 mg
Target:	KCNQ2
Protein Characteristics:	AA 1-872
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This KCNQ2 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat KCNQ2 Protein expressed in mammalien cells.
Sequence:	MVQKSRNGGV YPGPSGEKKL KVGFVGLDPG APDSTRDGAL LIAGSEAPKR GSILSKPRAG GAGAGKPPKR NAFYRKLQNF LYNVLERPRG WAFIYHAYVF LLVFSCLVLS VFSTIKEYEK SSEGALYILE IVTIVVFGVE YFVRIWAAGC CCRYRGWRGR LKFARKPFCV IDIMVLIASI AVLAAGSQGN VFATSALRSL RFLQILRMIR MDRRGGTWKL LGSVVYAHSK ELVTAWYIGF LCLILASFLV YLAEKGENDH FDTYADALWW GLITLTTIGY GDKYPQTWNG RLLAATFTLI GVSFFALPAG ILGSGFALKV QEQHRQKHFE KRRNPAAGLI QSAWRFYATN LSRTDLHSTW QYYERTVTVP MYSSQTQTYG ASRLIPPLNQ LELLRNLKSK SGLAFRKDPP PEPSPSKGSP CRGPLCGCCP GRSSQKVSLK DRVFSSPRGV AAKGKGSPQA QTVRRSPSAD QSLEDSPSKV PKSWSFGDRS RARQAFRIKG AASRQNSEEA SLPGEDIVDD KSCPCEFVTE DLTPGLKVSI RAVCVMRFLV SKRKFKESLR PYDVMDVIEQ YSAGHLDMLS RIKSLQSRVD QIVGRGPAIT DKDRTKGPAE AELPEDPSMM GRLGKVEKQV LSMEKKLDFL VNIYMQRMGI PPTETEAYFG

Product Details

	AKEPEPAPPY HSPEDSREHV DRHGCIVKIV RSSSSTGQKN FSAPPAAPPV QCPPSTSWQP QSHPRQGHGT SPVGDHGSLV RIPPPPAHER SLSAYGGGNR ASMEFLRQED TPGCRPPEGN LRDSDTSISI PSVDHEELER SFSGFSISQS KENLDALNSC YAAVAPCAKV RPYIAEGESD TDSDLCTPCG PPPRSATGEG PFGDVGWAGP RK **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalien 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, Western Blot
Grade:	custom-made

Target Details

Target:	KCNQ2
Alternative Name:	KCNQ2 (KCNQ2 Products)
Background:	Potassium voltage-gated channel subfamily KQT member 2 (KQT-like 2) (Neuroblastoma-specific potassium channel subunit alpha KvLQT2) (Voltage-gated potassium channel subunit Kv7.2),FUNCTION: Associates with KCNQ3 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

Target Details

	is important in the regulation of neuronal excitability. KCNQ2/KCNQ3 current is blocked by linopirdine and XE991, and activated by the anticonvulsant retigabine (PubMed:9836639, PubMed:11572947, PubMed:14534157, PubMed:12742592, PubMed:17872363). As the native M-channel, the potassium channel composed of KCNQ2 and KCNQ3 is also suppressed by activation of the muscarinic acetylcholine receptor CHRM1 (PubMed:10684873). 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. {ECO:0000269|PubMed:10684873, ECO:0000269|PubMed:11572947, ECO:0000269|PubMed:12742592, ECO:0000269|PubMed:14534157, ECO:0000269|PubMed:17872363, ECO:0000269|PubMed:25740509, ECO:0000269|PubMed:28793216, ECO:0000269|PubMed:9836639}.
Molecular Weight:	95.8 kDa
UniProt:	O43526

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. 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
Storage Comment:	Store at -80°C.
Expiry Date:	12 months