

Datasheet for ABIN3110095

KCNQ3 Protein (AA 1-872) (Strep Tag)



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1 Image

Overview

Quantity:	1 mg
Target:	KCNQ3
Protein Characteristics:	AA 1-872
Origin:	Human
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This KCNQ3 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence: MGLKARRAAG AAGGGGDGGG GGGGAANPAG GDAAAAGDEE RKVGLAPGDV EQVTLALGAG
ADKDGTLLE GGGRDEGQRR TPQGIGLLAK TPLSRPVKRN NAKYRRIQTL IYDALERPRG
WALLYHALVF LIVLGCLILA VLTTFFKEYET VSGDWLLLLL TFAIFIFGAE FALRIWAAGC
CCRYKGWRGR LKFARKPLCM LDIFVLIASV PVVAVGNQGN VLATSLRSLR FLQILRMLRM
DRRGGTWKL GSAICAHSKE LITAWYIGFL TLILSSFLVY LVEKDVPEVD AQGEEMKEEF
ETYADALWWG LITLATIGYG DKTPKTWEGR LIAATFSLIG VSFFALPAGI LGSGLALKVQ
EQHRQKHFEK RRPAAELIQ AAWRYATNP NRIDL VATWR FYESVVSFPF FRKEQLEAAS
SQKLGLLDLV RLSNPRGSNT KGKLF TPLNV DAIEESPSKE PKPVGLNNKE RFRTAFRMKA
YAFWQSSEDA GTGDPM AEDR GYGND FPIED MIPTLKAAIR AVRILQFRLY KKKFKETLRP
YDVKDVIEQY SAGHLDMLSR IKYLQTRIDM IFTPGPPSTP KHKKSQKGS A FTTPSQSPR
NEPYVARPST SEIEDQSMMG KFKVVERQVQ DMGKKLDFLV DMHMQHMERL QVQVTEYYPT
KGTSSPAEAE KKEDNRYSDL KTIICNYSET GPPEPPYSFH QVTIDKVSPY GFFAHDPVNL

PRGGPSSGKV QATPPSSATT YVERPTVLP I LLLDSRVSC HSQADLQGPY SDRISPRQRR
SITRSDTPL SLMSVNHEEL ERSPSGFSIS QDRDDYVFGP NGGSSWMREK RYLAEGETDT
DTPFPTSGS MPLSSTGDGI SDSVWTPSNK PI

Sequence without tag. The proposed Strep-Tag is based on experience s 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 in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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 will ensure that you receive a correctly folded protein.

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.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Product Details

Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): <ol style="list-style-type: none">1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE.2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

Target Details

Target:	KCNQ3
Alternative Name:	KCNQ3 (KCNQ3 Products)
Background:	<p>Potassium voltage-gated channel subfamily KQT member 3 (KQT-like 3) (Potassium channel subunit alpha KvLQT3) (Voltage-gated potassium channel subunit Kv7.3),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:28793216). {ECO:0000269 PubMed:11159685, ECO:0000269 PubMed:14534157, ECO:0000269 PubMed:16319223, ECO:0000269 PubMed:28793216, ECO:0000269 PubMed:9872318}.</p>
Molecular Weight:	96.7 kDa
UniProt:	O43525

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
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Application Details

guarantee though.

Comment:

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Restrictions:

For Research Use only

Handling

Format:

Liquid

Buffer:

The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.

Handling Advice:

Avoid repeated freeze-thaw cycles.

Storage:

-80 °C

Storage Comment:

Store at -80°C.

Expiry Date:

Unlimited (if stored properly)



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process