Datasheet for ABIN3110095

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

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Overview

Quantity:	250 µg
Target:	KCNQ3
Protein Characteristics:	AA 1-872
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This KCNQ3 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MGLKARRAAG AAGGGGDGGG GGGGAANPAG GDAAAAGDEE RKVGLAPGDV EQVTLALGAG ADKDGTLLLE GGGRDEGQRR TPQGIGLLAK TPLSRPVKRN NAKYRRIQTL IYDALERPRG WALLYHALVF LIVLGCLILA VLTTFKEYET VSGDWLLLLE TFAIFIFGAE FALRIWAAGC CCRYKGWRGR LKFARKPLCM LDIFVLIASV PVVAVGNQGN VLATSLRSLR FLQILRMLRM DRRGGTWKLL GSAICAHSKE LITAWYIGFL TLILSSFLVY LVEKDVPEVD AQGEEMKEEF ETYADALWWG LITLATIGYG DKTPKTWEGR LIAATFSLIG VSFFALPAGI LGSGLALKVQ EQHRQKHFEK RRKPAAELIQ AAWRYYATNP NRIDLVATWR FYESVVSFPF FRKEQLEAAS SQKLGLLDRV RLSNPRGSNT KGKLFTPLNV DAIEESPSKE PKPVGLNNKE RFRTAFRMKA YAFWQSSEDA GTGDPMAEDR GYGNDFPIED MIPTLKAAIR AVRILQFRLY KKKFKETLRP YDVKDVIEQY SAGHLDMLSR IKYLQTRIDM IFTPGPPSTP KHKKSQKGSA FTFPSQQSPR NEPYVARPST SEIEDQSMMG KFVKVERQVQ DMGKKLDFLV DMHMQHMERL QVQVTEYYPT

KGTSSPAEAE KKEDNRYSDL KTIICNYSET GPPEPPYSFH QVTIDKVSPY GFFAHDPVNL PRGGPSSGKV QATPPSSATT YVERPTVLPI LTLLDSRVSC HSQADLQGPY SDRISPRQRR SITRDSDTPL SLMSVNHEEL ERSPSGFSIS QDRDDYVFGP NGGSSWMREK RYLAEGETDT DTDPFTPSGS 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 in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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 against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Product Details

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	KCNQ3
Alternative Name:	KCNQ3 (KCNQ3 Products)
Background:	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}.
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 guarantee though.
Comment:	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.

Application Details

	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!
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months