

Datasheet for ABIN3119221

## KCNH4 Protein (AA 1-1017) (Strep Tag)



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### Overview

Quantity:	250 µg
Target:	KCNH4
Protein Characteristics:	AA 1-1017
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This KCNH4 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

### Product Details

Brand:	AliCE®
Sequence:	<p>MPVMKGLLAP QNTFLDTIAT RFDGTHSNFL LANAQGTRGF PIVYCSDGFC ELTG YGRTEV</p> <p>MQKTCSCRFL YGPETSEPAL QRLHKALEGH QEHRAEICFY RKDGSAFWCL LDMMPIKNEM</p> <p>GEVVLFLFSF KDITQSGSPG LGPQGGRGDS NHENSLGRRG ATWKFRSARR RSRTVLHRLT</p> <p>GHFGRRGQGG MKANNNVFEP KPSVPEYKVA SVGGSRCLLL HYSVSKAIWD GLILLATFYV</p> <p>AVTVPYNVCF SGDDDTPTS RHTLVSDIAV EMLFILDIL NFRTTYVSQS GQVISAPRSI</p> <p>GLHYLATWFF IDLIAALPFD LLYIFNITVT SLVHLLKTVR LLRLLRLLQK LERYSQCSAV</p> <p>VLTLMSVFA LLAHWMACIW YVIGRREMEA NDPLLWDIGW LHELGKRLEV PYVNGSVGGP</p> <p>SRRSAYIAAL YFTLSSLTSV GFGNVCANTD AEKIFSICTM LIGALMHAVV FGNVTAIQR</p> <p>MYSRRSLYHS RMKDLKDFIR VHRLPRPLKQ RMLEYFQTTW AVNSGIDANE LLRDFPDEL R</p> <p>ADIAMHLNRE ILQLPLFGAA SRGCLRALSL HIKTSFCAPG EYLLRRGDAL QAHYYVCSGS</p> <p>LEVL RDNMVL AILGKGDLIG ADIPEPGQEP GLGADPNFVL KTSADVKALT YCGLQQLSSR</p>

GLAEVLRLYP EYGAAFRAGL PRDLTFNLRQ GSDTSGLSRF SRSPRLSQPR SESLGSSSDK  
TLPSITEAES GAEPGGGPRP RRPLLLPNLS PARPRGSLVS LLGEELPPFS ALVSSPSLSP  
SLSPALAGQG HSASPHGPPR CSAAWKPPQL LIPPLGTFGP PDLSPRIVDG IEDSGSTAEA  
PSFRFSRRPE LPRPRSQAPP TGTRPSPELA SEAEVKEKV CRLNQEISRL NQEVSQLSRE  
LRHIMGLLQA RLGPPGHPAG SAWTPDPPCP QLRPPCLSPC ASRPPPSLQD TTLAEVHCPA  
SVGTMETGTA LLDLRPSILP PYPSEPDPLG PSPVPEASPP TPSLLRHSFQ SRSDTFH

**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.**

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### 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.

## Product Details

- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

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: KCNH4

Alternative Name: KCNH4 ([KCNH4 Products](#))

Background: Potassium voltage-gated channel subfamily H member 4 (Brain-specific eag-like channel 2) (BEC2) (Ether-a-go-go-like potassium channel 1) (ELK channel 1) (ELK1) (Voltage-gated potassium channel subunit Kv12.3),FUNCTION: Pore-forming (alpha) subunit of voltage-gated potassium channel. Elicits an outward current, but shows no inactivation. Channel properties may be modulated by cAMP and subunit assembly.

Molecular Weight: 111.7 kDa

UniProt: [Q9UQ05](#)

## 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.

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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!

Application Details

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 <b>Might differ depending on protein.</b>
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months