

Datasheet for ABIN3118633

## KCNK4 Protein (AA 1-393) (Strep Tag)



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### Overview

Quantity:	250 µg
Target:	KCNK4
Protein Characteristics:	AA 1-393
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This KCNK4 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

### Product Details

Brand:	AlIcE®
Sequence:	<p>MRSTLLALL ALVLLYLVSG ALVFRALEQP HEQQAQRELG EVREKFLRAH PCVSDQELGL          LIKEVADALG GGADPETNST SNSSHSAWDL GSAFFFSGTI ITTIGYGNVA LRTDAGRLFC          IFYALVGIPL FGILLAGVGD RLGSSLRHGI GHIEAIFLKW HVPPELVRVL SAMLFLIGC          LLFVLTPTFV FCYMEDWSKL EAIYFVIVTL TTVGFGDYVA GADPRQDSPA YQPLVFWIL          LGLAYFASVL TTIGNWLRV SRRTAEMGG LTAQAASWTG TVTARVTQRA GPAAPPPEKE          QPLPPPPCP AQLGRPRSP SPPEKAQPPS PPTASALDYP SENLAFIDES SDTQSERGCP          LPRAPGRRRR PNPPRKPVRP RGPGRPRDKG VPV</p> <p><b>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.</b></p>
Characteristics:	Key Benefits:

## Product Details

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- 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.

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

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Target:	KCNK4
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## Target Details

Alternative Name:	KCNK4 ( <a href="#">KCNK4 Products</a> )
Background:	<p>Potassium channel subfamily K member 4 (TWIK-related arachidonic acid-stimulated potassium channel protein) (TRAAK) (Two pore potassium channel KT4.1) (Two pore K(+) channel KT4.1),FUNCTION: Voltage-insensitive potassium channel (PubMed:22282805). Channel opening is triggered by mechanical forces that deform the membrane (PubMed:22282805, PubMed:25471887, PubMed:25500157, PubMed:30290154). Channel opening is triggered by raising the intracellular pH to basic levels (By similarity). The channel is inactive at 24 degrees Celsius (in vitro), raising the temperature to 37 degrees Celsius increases the frequency of channel opening, with a further increase in channel activity when the temperature is raised to 42 degrees Celsius (By similarity). Plays a role in the perception of pain caused by heat (By similarity). Plays a role in the sensory perception of pain caused by pressure (By similarity). {ECO:0000250 UniProtKB:G3V8V5, ECO:0000250 UniProtKB:O88454, ECO:0000269 PubMed:22282805, ECO:0000269 PubMed:25471887, ECO:0000269 PubMed:25500157, ECO:0000269 PubMed:30290154}.</p>
Molecular Weight:	42.7 kDa
UniProt:	<a href="#">Q9NYG8</a>

## 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:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> 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.</p> <p>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!</p>
Restrictions:	For Research Use only

## Handling

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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