

Datasheet for ABIN3114512  
**KCNH2 Protein (AA 1-1159) (Strep Tag)**



[Go to Product page](#)

1 Image

Overview

Quantity:	1 mg
Target:	KCNH2
Protein Characteristics:	AA 1-1159
Origin:	Human
Source:	Tobacco ( <i>Nicotiana tabacum</i> )
Protein Type:	Recombinant
Purification tag / Conjugate:	This KCNH2 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence: MPVRRGHVAP QNTFLDTHIR KFEGQSRKFI IANARVENCA VIYCNDGFCE LCGYSRAEVM  
QRPCTCDFLH GPRTQRRAAA QIAQALLGAE ERKVEIAFYR KDGSCFLCLV DVVPVKNEGDG  
AVIMFILNFE VVMEKDMVGS PAHDTNHRGP PTSWLAPGRA KTFRLKLPAL LALTARESSV  
RSGGAGGAGA PGAVVVDVDL TPAAPSSSEL ALDEVTAMDN HVAGLGPAEE RRALVGPSP  
PRSAPGQLPS PRAHSLNPDA SGSSCSLART RSRESCASVR RASSADDIEA MRAGVLPPPP  
RHASTGAMHP LRSGLLNSTSDSLVRYRTI SKIPQITLNF VDLKGDPLA SPTSDREIIA  
PKIKERTHNV TEKVTQVLSL GADVLPEYKL QAPRIHRWTI LHYSPEKAVW DWLILLVIY  
TAVFTPYSAA FLLKETEEGP PATECGYACQ PLAVVDLIVD IMFIVDILIN FRTTYVNANE  
EVVSHPGRIA VHYFKGWFLI DMVAAIPFDL LIFGSGSEEL IGLLKTARLL RLVRVARKLD  
RYSEYGA AVL FLLMCTFALI AHWLACIWYA IGNMEQPHMD SRIGWLHNLG DQIGKPYNSS  
GLGGPSIKDK YVTALYFTFS SLTSVGFGENV SPNTNSEKIF SICVMLIGSL MYASIFGNVS  
AIIQRLYSGT ARYHTQMLRV REFIRFHQIP NPLRQRLEEY FQHAWSYTNG IDMNAVLKGF

PECLQADICL HLNRSLLQHC KPFRGATKGC LRALAMKFKT THAPPGDTLV HAGDLLTALY  
FISRGSIEIL RGDVVVAILG KNDIFGEPLN LYARPGKSNG DVRALTYCDL HKIHRDDLLE  
VLDMYPEFSD HFWSSLEITF NLRDTNMIPG SPGSTELEGG FSRQRKRKLS FRRRTDKDTE  
QPGEVSALGP GRAGAGPSSR GRPGGPWGES PSSGPSSPES SEDEGPGRSS SPLRLVPFSS  
PRPPGEPGG EPLMEDCEKS SDTCNPLSGA FSGVSNIFSF WGDSRGRQYQ ELPRCPAPT  
SLLNIPLSSP GRRPRGDVES RLDALQRQLN RLETRLSADM ATVLQLLQRQ MTLVPPAYSA  
VTTGPGPTS TSPLLPVSPL PTLTLDLSLQ VSQFMACEEL PPGAPELPQE GPTRRLSLPG  
QLGALTSQPL HRHGSDPGS

**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!

## Product Details

---

### 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.

---

### Purification:

Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):

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:

KCNH2

---

### Alternative Name:

KCNH2 ([KCNH2 Products](#))

---

### Background:

Potassium voltage-gated channel subfamily H member 2 (Eag homolog) (Ether-a-go-go-related gene potassium channel 1) (ERG-1) (Eag-related protein 1) (Ether-a-go-go-related protein 1) (H-ERG) (hERG-1) (hERG1) (Voltage-gated potassium channel subunit Kv11.1),FUNCTION: Pore-forming (alpha) subunit of voltage-gated inwardly rectifying potassium channel. Channel properties are modulated by cAMP and subunit assembly. Mediates the rapidly activating component of the delayed rectifying potassium current in heart (IKr) (PubMed:18559421, PubMed:26363003, PubMed:27916661). {ECO:0000269|PubMed:18559421, ECO:0000269|PubMed:26363003, ECO:0000269|PubMed:27916661}., FUNCTION: [Isoform A-USO]: Has no channel activity by itself, but modulates channel characteristics by forming heterotetramers with other isoforms which are retained intracellularly and undergo ubiquitin-dependent degradation. {ECO:0000269|PubMed:18559421}., FUNCTION: [Isoform B-USO]: Has no channel activity by itself, but modulates channel characteristics by forming heterotetramers with other isoforms which are retained intracellularly and undergo ubiquitin-dependent degradation. {ECO:0000269|PubMed:18559421}.

## Target Details

---

Molecular Weight: 126.7 kDa

UniProt: [Q12809](#)

## 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.

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. 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