

# Datasheet for ABIN3121406 KCND1 Protein (AA 1-651) (Strep Tag)



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#### Overview

Quantity:	250 μg
Target:	KCND1 (Kcnd1)
Protein Characteristics:	AA 1-651
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This KCND1 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), ELISA, Western Blotting (WB)

Product Details	
Brand:	AliCE®
Sequence:	MAAGVATWLP FARAAAVGWL PLAQQPLPPA PEVKASRGDE VLVVNVSGRR FETWKNTLDR
	YPDTLLGSSE KEFFYDAESG EYFFDRDPDM FRHVLNFYRT GRLHCPRQEC IQAFDEELAF
	YGLVPELVGD CCLEEYRDRK KENAERLAED EEAEQAGEGP ALPAGSSLRQ RLWRAFENPH
	TSTAALVFYY VTGFFIAVSV IANVVETIPC RGTPRWPSKE QSCGDRFPTA FFCMDTACVL
	IFTGEYLLRL FAAPSRCRFL RSVMSLIDVV AILPYYIGLF VPKNDDVSGA FVTLRVFRVF
	RIFKFSRHSQ GLRILGYTLK SCASELGFLL FSLTMAIIIF ATVMFYAEKG TSKTNFTSIP
	AAFWYTIVTM TTLGYGDMVP STIAGKIFGS ICSLSGVLVI ALPVPVIVSN FSRIYHQNQR
	ADKRRAQQKV RLARIRLAKS GTTNAFLQYK QNGGLEDSGS GDGQMLCVRS RSAFEQQHHH
	LLHCLEKTTC HEFTDELTFS EALGAVSLGG RTSRSTSVSS QPMGPGSLFS SCCSRRVNRR
	AIRLANSTAS VSRGSMQELD TLAGLRRSPA PQTRSSLNAK PHDSLDLNCD SRDFVAAIIS
	IPTPPANTPD ESQPSSPSGG GGSGGTPNTT LRNSSLGTPC LLPETVKISS L

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 posttranslational 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).

## **Product Details** Grade: custom-made **Target Details** KCND1 (Kcnd1) Target: Alternative Name Kcnd1 (Kcnd1 Products) Background: Potassium voltage-gated channel subfamily D member 1 (Voltage-gated potassium channel subunit Kv4.1) (mShal), FUNCTION: Pore-forming (alpha) subunit of voltage-gated rapidly inactivating A-type potassium channels. May contribute to I(To) current in the heart and I(Sa) current in neurons. Channel properties are modulated by subunit assembly. {ECO:0000269|PubMed:2034678}. Molecular Weight: 71.7 kDa UniProt: Q03719 **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.

### Handling

	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