

# Datasheet for ABIN3110457 **HCN1 Protein (AA 1-890) (Strep Tag)**



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Quantity:	250 μg
Target:	HCN1
Protein Characteristics:	AA 1-890
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This HCN1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Brand:	AliCE®
Sequence:	MEGGGKPNSS SNSRDDGNSV FPAKASATGA GPAAAEKRLG TPPGGGGAGA KEHGNSVCFK
	VDGGGGGGG GGGGEEPAGG FEDAEGPRRQ YGFMQRQFTS MLQPGVNKFS LRMFGSQKAV
	EKEQERVKTA GFWIIHPYSD FRFYWDLIML IMMVGNLVII PVGITFFTEQ TTTPWIIFNV
	ASDTVFLLDL IMNFRTGTVN EDSSEIILDP KVIKMNYLKS WFVVDFISSI PVDYIFLIVE
	KGMDSEVYKT ARALRIVRFT KILSLLRLLR LSRLIRYIHQ WEEIFHMTYD LASAVVRIFN
	LIGMMLLLCH WDGCLQFLVP LLQDFPPDCW VSLNEMVNDS WGKQYSYALF KAMSHMLCIG
	YGAQAPVSMS DLWITMLSMI VGATCYAMFV GHATALIQSL DSSRRQYQEK YKQVEQYMSF
	HKLPADMRQK IHDYYEHRYQ GKIFDEENIL NELNDPLREE IVNFNCRKLV ATMPLFANAD
	PNFVTAMLSK LRFEVFQPGD YIIREGAVGK KMYFIQHGVA GVITKSSKEM KLTDGSYFGE
	ICLLTKGRRT ASVRADTYCR LYSLSVDNFN EVLEEYPMMR RAFETVAIDR LDRIGKKNSI
	LLQKFQKDLN TGVFNNQENE ILKQIVKHDR EMVQAIAPIN YPQMTTLNST SSTTTPTSRM

RTQSPPVYTA TSLSHSNLHS PSPSTQTPQP SAILSPCSYT TAVCSPPVQS PLAARTFHYA
SPTASQLSLM QQQPQQQVQQ SQPPQTQPQQ PSPQPQTPGS STPKNEVHKS TQALHNTNLT
REVRPLSASQ PSLPHEVSTL ISRPHPTVGE SLASIPQPVT AVPGTGLQAG GRSTVPQRVT
LFRQMSSGAI PPNRGVPPAP PPPAAALPRE SSSVLNTDPD AEKPRFASNL

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.

## **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** HCN1 Target: Alternative Name: HCN1 (HCN1 Products) Background: Potassium/sodium hyperpolarization-activated cyclic nucleotide-gated channel 1 (Brain cyclic nucleotide-gated channel 1) (BCNG-1), FUNCTION: Hyperpolarization-activated ion channel exhibiting weak selectivity for potassium over sodium ions (PubMed:28086084). Contributes to the native pacemaker currents in heart (If) and in neurons (Ih). May mediate responses to sour stimuli. {ECO:0000269|PubMed:15351778, ECO:0000269|PubMed:28086084, ECO:0000269|PubMed:29936235, ECO:0000269|PubMed:30351409}. Molecular Weight: 98.8 kDa UniProt: 060741 Pathways: Asymmetric Protein Localization **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

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### **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	