

### Datasheet for ABIN3131668

# CCRN4L Protein (AA 1-429) (Strep Tag)



### Overview

Quantity:	250 μg
Target:	CCRN4L
Protein Characteristics:	AA 1-429
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This CCRN4L protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

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Product Details	
Brand:	AliCE®
Sequence:	MYQSPRRLCS ALLLRDAPGL RRTLVPGPRR TLAPPVLGSR PKSPQLQAAA ASGAARSRPR
	TVSSMGNGTS RLYSALAKTV NSSAAAQHPE YLVSTDPEHL EPIDPKELLE ECRAVLHTRP
	PRYQRDFVDL RTDCSSSHSP IRVMQWNILA QALGEGKDNF VQCPVEALKW EERKCLILEE
	ILAYQPDILC LQEVDHYFDT FQPLLSRLGY QGTFFPKPWS PCLDVEHNNG PDGCALFFLQ
	NRFKLISSTN IRLTAMTLKT NQVAIAQTLE CKESGRQFCI AVTHLKARTG WERFRSAQGC
	DLLQNLQNIT QGAKIPLIVC GDFNAEPTEE VYKHFASSSL NLNSAYKLLS PDGQSEPPYT
	TWKIRTSGEC RHTLDYIWYS RHALSVTSAL DLLTEEQIGP NRLPSFHYPS DHLSLVCDFS
	FNEEPHELF
	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).
Grade:	custom-made

## **Target Details**

Target:	CCRN4L
Alternative Name:	Noct (CCRN4L Products)
Background:	Nocturnin (EC 3.1.3.108) (Carbon catabolite repression 4-like protein),FUNCTION: Phosphatase
	which catalyzes the conversion of NADP(+) to NAD(+) and of NADPH to NADH (By similarity).
	Shows a small preference for NADPH over NADP(+) (By similarity). Represses translation and
	promotes degradation of target mRNA molecules (By similarity). Plays an important role in
	post-transcriptional regulation of metabolic genes under circadian control (PubMed:20685873,
	PubMed:20498072). Exerts a rhythmic post-transcriptional control of genes necessary for
	metabolic functions including nutrient absorption, glucose/insulin sensitivity, lipid metabolism,
	adipogenesis, inflammation and osteogenesis (PubMed:20498072, PubMed:22082366,
	PubMed:21820310, PubMed:22073225, PubMed:22331129). Plays an important role in favoring
	adipogenesis over osteoblastogenesis and acts as a key regulator of the
	adipogenesis/osteogenesis balance (PubMed:20498072, PubMed:22082366). Promotes
	adipogenesis by facilitating PPARG nuclear translocation which activates its transcriptional
	activity (PubMed:20498072). Regulates circadian expression of NOS2 in the liver and negatively
	regulates the circadian expression of IGF1 in the bone (PubMed:22073225, PubMed:20685873)
	Critical for proper development of early embryos (PubMed:23449310).
	{ECO:0000250 UniProtKB:Q9UK39, ECO:0000269 PubMed:20498072,
	ECO:0000269 PubMed:20685873, ECO:0000269 PubMed:21820310,
	ECO:0000269 PubMed:22073225, ECO:0000269 PubMed:22082366,
	ECO:0000269 PubMed:22331129, ECO:0000269 PubMed:23449310}.
Molecular Weight:	48.3 kDa
UniProt:	035710
Pathways:	Ribonucleoprotein Complex Subunit Organization
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.

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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