antibodies

# Datasheet for ABIN3087338 RNF14 Protein (AA 1-474) (Strep Tag)





## Overview

Quantity:	1 mg
Target:	RNF14
Protein Characteristics:	AA 1-474
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This RNF14 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

## Product Details

	have a special request, please contact us.
	system, a different complexity of the protein could make another tag necessary. In case you
	Sequence without tag. The proposed Strep-Tag is based on experience s with the expression
	TCTGCMQYFC WICMGSLSRA NPYKHFNDPG SPCFNRLFYA VDVDDDIWED EVED
	RNEYLQADEA NKRLLDQRYG KRVIQKALEE MESKEWLEKN SKSCPCCGTP IEKLDGCNKM
	DLMADVVYCP RPCCQLPVMQ EPGCTMGICS SCNFAFCTLC RLTYHGVSPC KVTAEKLMDL
	VYCKACLKDY FEIQIRDGQV QCLNCPEPKC PSVATPGQVK ELVEAELFAR YDRLLLQSSL
	EIVDERAVQD VESLSNLIQE ILDFDQAQQI KCFNSKLFLC SICFCEKLGS ECMYFLECRH
	VVLFAWMQFL KEETLAYLNI VSPFELKIGS QKKVQRRTAQ ASPNTELDFG GAAGSDVDQE
	SGFEYTICFL PPLVLNFELP PDYPSSSPPS FTLSGKWLSP TQLSALCKHL DNLWEEHRGS
Sequence:	MSSEDREAQE DELLALASIY DGDEFRKAES VQGGETRIYL DLPQNFKIFV SGNSNECLQN

Characteristics:

Key Benefits:

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- · 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 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 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.
- 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.

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Product Details	
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:	RNF14
Alternative Name:	RNF14 (RNF14 Products)
Background:	E3 ubiquitin-protein ligase RNF14 (EC 2.3.2.31) (Androgen receptor-associated protein 54) (HFB30) (RING finger protein 14),FUNCTION: E3 ubiquitin-protein ligase that plays a key role in the RNF14-RNF25 translation quality control pathway, a pathway that takes place when a ribosome has stalled during translation, and which promotes ubiquitination and degradation of translation factors on stalled ribosomes (PubMed:36638793, PubMed:37651229, PubMed:37951215, PubMed:37951216). Recruited to stalled ribosomes by the ribosome collision sensor GCN1 and mediates 'Lys-6'-linked ubiquitination of target proteins, leading to their degradation (PubMed:36638793, PubMed:37651229, PubMed:37951215, PubMed:37951216). Mediates ubiquitination of EEF1A1/eEF1A and ETF1/eRF1 translation factors on stalled ribosomes, leading to their degradation (PubMed:36638793, PubMed:37651229). Also catalyzes ubiquitination of ribosomal proteins RPL0, RPL1, RPL12, RPS13 and RPS17 (PubMed:36638793). Specifically required to resolve RNA-protein cross-links caused by reactive aldehydes, which trigger translation stress by stalling ribosomes: acts by catalying 'Lys-6'-linked ubiquitination of RNA-protein cross-links, leading to their removal by the ATP-dependent unfoldase VCP and subsequent degradation by the proteasome (PubMed:37951215, PubMed:37951216). Independently of its function in the response to stalled ribosomes, acts as a regulator of transcription in Wnt signaling via its interaction with TCF transcription factors (TCF7/TCF1, TCF7L1/TCF3 and TCF7L2/TCF4) (PubMed:23449499). May also play a role as a coactivator for androgen- and, to a lesser extent, progesterone- dependent transcription (PubMed:19345326). [EC0:0000269]PubMed:37951215, EC0:0000269]PubMed:37651229, EC0:0000269]PubMed:37951215, EC0:0000269]PubMed:37651229, EC0:0000269]PubMed:37951215, EC0:0000269]PubMed:37651229, EC0:0000269]PubMed:37951215,
	ECO:0000269 PubMed:37951216}.
Molecular Weight:	53.8 kDa
UniProt:	Q9UBS8
Pathways:	Intracellular Steroid Hormone Receptor Signaling Pathway, Regulation of Intracellular Steroid

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### Hormone Receptor Signaling

## 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)

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**Image 1.** "Crystallography Grade" protein due to multi-step, protein-specific purification process

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