

# Datasheet for ABIN3094884

# p107 Protein (AA 1-1068) (Strep Tag)



# Overview

Quantity:	250 μg
Target:	p107 (RBL1)
Protein Characteristics:	AA 1-1068
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This p107 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Duand	NIOFO
Brand:	AliCE®
Sequence:	MFEDKPHAEG AAVVAAAGEA LQALCQELNL DEGSAAEALD DFTAIRGNYS LEGEVTHWLA
	CSLYVACRKS IIPTVGKGIM EGNCVSLTRI LRSAKLSLIQ FFSKMKKWMD MSNLPQEFRE
	RIERLERNFE VSTVIFKKYE PIFLDIFQNP YEEPPKLPRS RKQRRIPCSV KDLFNFCWTL
	FVYTKGNFRM IGDDLVNSYH LLLCCLDLIF ANAIMCPNRQ DLLNPSFKGL PSDFHTADFT
	ASEEPPCIIA VLCELHDGLL VEAKGIKEHY FKPYISKLFD RKILKGECLL DLSSFTDNSK
	AVNKEYEEYV LTVGDFDERI FLGADAEEEI GTPRKFTRDT PLGKLTAQAN VEYNLQQHFE
	KKRSFAPSTP LTGRRYLREK EAVITPVASA TQSVSRLQSI VAGLKNAPSD QLINIFESCV
	RNPVENIMKI LKGIGETFCQ HYTQSTDEQP GSHIDFAVNR LKLAEILYYK ILETVMVQET
	RRLHGMDMSV LLEQDIFHRS LMACCLEIVL FAYSSPRTFP WIIEVLNLQP FYFYKVIEVV
	IRSEEGLSRD MVKHLNSIEE QILESLAWSH DSALWEALQV SANKVPTCEE VIFPNNFETG
	NGGNVQGHLP LMPMSPLMHP RVKEVRTDSG SLRRDMQPLS PISVHERYSS PTAGSAKRRI

FGEDPPKEML MDKIITEGTK LKIAPSSSIT AENVSILPGQ TLLTMATAPV TGTTGHKVTI
PLHGVANDAG EITLIPLSMN TNQESKVKSP VSLTAHSLIG ASPKQTNLTK AQEVHSTGIN
RPKRTGSLAL FYRKVYHLAS VRLRDLCLKL DVSNELRRKI WTCFEFTLVH CPDLMKDRHL
DQLLLCAFYI MAKVTKEERT FQEIMKSYRN QPQANSHVYR SVLLKSIPRE VVAYNKNIND
DFEMIDCDLE DATKTPDCSS GPVKEERGDL IKFYNTIYVG RVKSFALKYD LANQDHMMDA
PPLSPFPHIK QQPGSPRRIS QQHSIYISPH KNGSGLTPRS ALLYKFNGSP SKSLKDINNM
IROGEORTKK RVIAIDSDAE SPAKRVCOEN DDVLLKRLOD VVSERANH

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: p107 (RBL1) Alternative Name: RBL1 (RBL1 Products) Background: Retinoblastoma-like protein 1 (107 kDa retinoblastoma-associated protein) (p107) (pRb1), FUNCTION: Key regulator of entry into cell division (PubMed:17671431). Directly involved in heterochromatin formation by maintaining overall chromatin structure and, in particular, that of constitutive heterochromatin by stabilizing histone methylation (By similarity). Recruits and targets histone methyltransferases KMT5B and KMT5C, leading to epigenetic transcriptional repression (By similarity). Controls histone H4 'Lys-20' trimethylation (By similarity). Probably acts as a transcription repressor by recruiting chromatin-modifying enzymes to promoters (By similarity). Potent inhibitor of E2F-mediated trans-activation (PubMed:8319904). May act as a tumor suppressor (PubMed:8319904). {ECO:0000250|UniProtKB:Q64701, ECO:0000269|PubMed:17671431, ECO:0000269|PubMed:8319904}. Molecular Weight: 120.8 kDa UniProt: P28749 Pathways: Cell Division Cycle, Mitotic G1-G1/S Phases **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

# **Application Details**

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.  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