



[Go to Product page](#)

Datasheet for ABIN3095901

TIMELESS Protein (AA 1-1208) (Strep Tag)

1 Image

Overview

Quantity:	1 mg
Target:	TIMELESS
Protein Characteristics:	AA 1-1208
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This TIMELESS protein is labelled with Strep Tag.
Application:	Western Blotting (WB), ELISA, SDS-PAGE (SDS)

Product Details

Sequence: MDLHMMNCEL LATCSALGYL EGDYHKEPD CLESVKDLIR YLRHEDETRD VRQQLGAAQI
LQSDLLPILT QHHQDKPLFD AVIRLMVNLT QPALLCFGNL PKEPSFRHHF LQVLTYLQAY
KEAFASEKAF GVLSETLYEL LQLGWEERQE EDNLLIERIL LLVRNILHVP ADLDQEKKID
DDASAHDQLL WAIHLSGLDD LLLFLASSSA EEQWSLHVLE IVSLMFRDQN PEQLAGVGQG
RLAQERSADF AELEVLQRRE MAEKKTRALQ RGNRHSRFGG SYIVQGLKSI GERDLIFHKG
LHNLRNYSDD LGKQPKKVPK RRQAARELSI QRRSALNVRL FLRDFCSEFL ENCYNRLMGS
VKDHLLREKA QQHDETYMW ALAFFMAFNR AASFRPGLVS ETLVSRTFHF IEQNLTNYYE
MMLTDRKEAA SWARRMHLAL KAYQELLATV NEMDISPDEA VRESSRIKN NIFYVMEYRE
LFLALFRKFD ERCQPRSFLR DLVETTHLFL KMLERFCRSR GNLVVQNKQK KRRKKKKKVL
DQAIVSGNVP SSPEEVEAVW PALAEQLQCC AQNSELSMDS VVPFDAASEV PVEEQRAEAM
VRIQDCLLAG QAPQALTLLR SAREVWPEGD VFGSQDISPE EEIQLLKQIL SAPLPRQQGP
EERGAEEEEEE EEEEEEEELQ VVQVSEKEFN FLDYLKRFAC STVVRAYVLL LRSYQQNSAH

TNHCIVKMLH RLAHDLKMEA LLFQLSVFCL FNRLSDPAA GAYKELVTFA KYILGKFFAL
AAVNQKAFVE LLFWKNTAVV REMTEGYGSL DDRSSRRAP TWSPEEEAHL RELYLANKDV
EGQDVVEAIL AHLNTPRTR KQIIHHLVQM GLADSVKDFQ RKGTHIVLWT GDQELELQRL
FEEFRDSDDV LGHIMKNITA KRSRARIVDK LLALGLVAER RELYKKRQKK LASSILPNGA
ESLKDFCQED LEEEEENLPEE DSEEEEEEGGS EAEQVQGSLV LSNENLGQSL HQEGFSIPLL
WLQNCLIRAA DDREEDGCSQ AVPLVPLTEE NEEAMENEQF QQLLRKLGVR PPASGQETFW
RIPAKLSPTQ LRRAAASLSQ PEEEQKLOPE LQPKVPGEQG SDEEHCKEHR AQALRALLLA
HKKKAGLASP EEEDAVGKEP LKAAPKKRQL LDSDEEQEED EGRNRAPELG APGIQKKKRY
QIEDDEDD

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 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 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!

Product Details

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.
2. 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.

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:

TIMELESS

Alternative Name:

TIMELESS ([TIMELESS Products](#))

Background:

Protein timeless homolog (hTIM),FUNCTION: Plays an important role in the control of DNA replication, maintenance of replication fork stability, maintenance of genome stability throughout normal DNA replication, DNA repair and in the regulation of the circadian clock (PubMed:9856465, PubMed:17141802, PubMed:17296725, PubMed:23418588, PubMed:26344098, PubMed:23359676, PubMed:35585232, PubMed:31138685, PubMed:32705708). Required to stabilize replication forks during DNA replication by forming a complex with TIPIN: this complex regulates DNA replication processes under both normal and stress conditions, stabilizes replication forks and influences both CHEK1 phosphorylation and the intra-S phase checkpoint in response to genotoxic stress (PubMed:17141802, PubMed:17296725, PubMed:23359676, PubMed:35585232). During DNA replication, inhibits the CMG complex ATPase activity and activates DNA polymerases catalytic activities, coupling DNA unwinding and DNA synthesis (PubMed:23359676). TIMELESS promotes TIPIN nuclear localization (PubMed:17141802, PubMed:17296725). Plays a role in maintaining processive

Target Details

DNA replication past genomic guanine-rich DNA sequences that form G-quadruplex (G4) structures, possibly together with DDX1 (PubMed:32705708). Involved in cell survival after DNA damage or replication stress by promoting DNA repair (PubMed:17141802, PubMed:17296725, PubMed:26344098, PubMed:30356214). In response to double-strand breaks (DSBs), accumulates at DNA damage sites and promotes homologous recombination repair via its interaction with PARP1 (PubMed:26344098, PubMed:30356214, PubMed:31138685). May be specifically required for the ATR-CHEK1 pathway in the replication checkpoint induced by hydroxyurea or ultraviolet light (PubMed:15798197). Involved in the determination of period length and in the DNA damage-dependent phase advancing of the circadian clock (PubMed:23418588, PubMed:31138685). Negatively regulates CLOCK|NPAS2-ARTNL/BMAL1|ARTNL2/BMAL2-induced transactivation of PER1 possibly via translocation of PER1 into the nucleus (PubMed:9856465, PubMed:31138685). May play a role as destabilizer of the PER2-CRY2 complex (PubMed:31138685). May also play an important role in epithelial cell morphogenesis and formation of branching tubules (By similarity). {ECO:0000250|UniProtKB:Q9R1X4, ECO:0000269|PubMed:15798197, ECO:0000269|PubMed:17141802, ECO:0000269|PubMed:17296725, ECO:0000269|PubMed:23359676, ECO:0000269|PubMed:23418588, ECO:0000269|PubMed:26344098, ECO:0000269|PubMed:30356214, ECO:0000269|PubMed:31138685, ECO:0000269|PubMed:32705708, ECO:0000269|PubMed:35585232, ECO:0000269|PubMed:9856465}.

Molecular Weight: 138.7 kDa

UniProt: [Q9UNS1](#)

Pathways: [Protein targeting to Nucleus](#), [Photoperiodism](#)

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

Application Details

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)

Images

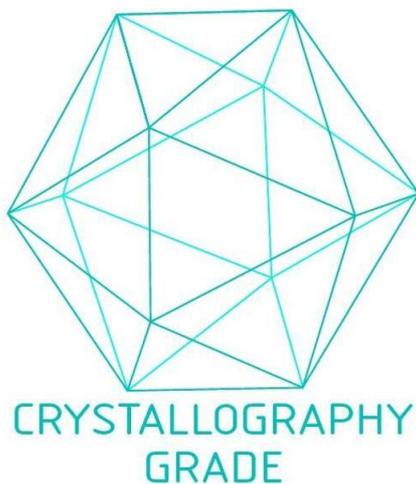


Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process