

Datasheet for ABIN3137464

TIMELESS Protein (AA 1-1197) (Strep Tag)



[Go to Product page](#)

Overview

Quantity:	250 µg
Target:	TIMELESS
Protein Characteristics:	AA 1-1197
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This TIMELESS protein is labelled with Strep Tag.
Application:	Western Blotting (WB), ELISA, SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	<p>MDLYMMNCEL LATCSALGYL EGGTYHKEPD CLESVKDLIR YLRHEDETRD VRQQLGAAQI</p> <p>LQSDLLPILT QHRQDKPLFD AVIRLMVNLT QPALLCFGSV PKDSSVRHHF LQVLTYLQAY</p> <p>KEAFASEKAF GVLSETLYEL LQLGWEDRQE EDNLLIERIL LLVRNHLHVP ANLEQEKSID</p> <p>DDASIHDRLL WAIHLSGMDD LLLFLSSSSA EQQWSLVHLE IISLMFRDQT PEQLAGVGQG</p> <p>RLAQRSTDV AELEVLQRRE MAEKRARALQ RGNRHSRFGG SYIVQGLKSI GEKDVFHKG</p> <p>LHNLQNYSSD LGKQPRRVPK RRQAAQELSV HRRSVLNVRL FLRDFCSEFL ENCYNPLMGA</p> <p>VKDHLLRERA QQHDETYMW AMAFFMAFNR AATFRPGLVS ETLSIRTFHF VEQNLTNYYE</p> <p>MMLTDRKEAA SWARRMHLAL KAYQELLATV NEMDMCPDEA VRESSRIKN NIFYMMEYRE</p> <p>LFLALFRKFD ERYHPRSFLR DLVETTHLFL KMLERFCRSR GNLMVQNKRK KRKKKKKVQD</p> <p>QGVAFSQSPG ELEMWPALA EQLLQCAQDP ELSVDPVVPF DAASEVPVEE QRVEAMVRIQ</p> <p>DCLTAGQAPQ ALALLRSARE VWPEGNAFGS PVISPGEEMQ LLKQILSTPL PRQQEPEEGD</p>

AEeeeeeeee EELQVVQVSE KEFNFLEYLK RFASSTIVRA YVLLLSYRQ NSAHTNHCIA
KMLHRLAHGL GMEALLFQLS LFCLFNRLLS DPAAAAAYKEL VTFAKYIIGK FFALAAVNQK
AFVELLFWKN TAVVREMTQG YGSLDSGSSS HRAPLWSPEE EAQLQELYLA HKDVEGQDVV
ETILAHLKVV PRTRKQVIHH LVRMGLADSV KEFQKRKGTQ IVLWTEQEL ELQRLFEEFR
DSDDVLGQIM KNITAKRSRA RVVDKLLALG LVSERRQLYK KRRKKLAPSC MQNGEKSPRD
PWQEDPEEED EHLPEDESED EESEEGLPSPG QGQGSSSLSA ENLGESLRQE GLSAPLLWLQ
SSLIRAANDR EEDGCSQAIP LVPLTEENEE AMENEQFQHL LRKLGIRPPS SGQETFWRIP
AKLSSTQLRR VAASLSQQEN EEEREEPEP GVPGEQGPSE EHRTEALRAL LSARKRKAGL
GPTEEEATGE EEWSAPKKR QLLDSDEEED DEGRRQAVSG TPRVHRKKRF QIEDEDD

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 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 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: TIMELESS

Alternative Name: Timeless ([TIMELESS Products](#))

Background: Protein timeless homolog (mTim),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:23418588, PubMed:10428031, PubMed:12875843, PubMed:31138685). 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:12875843). During DNA replication, inhibits the CMG complex ATPase activity and activates DNA polymerases catalytic activities, coupling DNA unwinding and DNA synthesis (By similarity). TIMELESS promotes TIPIN nuclear localization (PubMed:12875843, PubMed:31138685). Plays a role in maintaining processive DNA replication past genomic guanine-rich DNA sequences that form G-quadruplex (G4) structures, possibly together with DDX1 (By similarity). Involved in cell survival after DNA damage or replication stress by promoting DNA repair (PubMed:12875843). In response to double-strand breaks (DSBs), accumulates at DNA damage sites and promotes homologous recombination repair via its interaction with PARP1 (By similarity). May be specifically required for the ATR-CHEK1 pathway in the replication checkpoint induced by hydroxyurea or ultraviolet light (PubMed:23418588). Involved in the determination of period length and in the DNA damage-dependent phase advancing of the circadian clock (PubMed:23418588, PubMed:10428031, PubMed:31138685). Negatively regulates CLOCK|NPAS2-ARTNL/BMAL1|ARTNL2/BMAL2-induced transactivation of PER1 possibly via translocation of

Target Details

PER1 into the nucleus (PubMed:9856465). May also play an important role in epithelial cell morphogenesis and formation of branching tubules (PubMed:10963667).

{ECO:0000250|UniProtKB:Q9UNS1, ECO:0000269|PubMed:10428031, ECO:0000269|PubMed:10963667, ECO:0000269|PubMed:12875843, ECO:0000269|PubMed:23418588, ECO:0000269|PubMed:31138685, ECO:0000269|PubMed:9856465}.

Molecular Weight: 137.5 kDa

UniProt: [Q9R1X4](#)

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 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 **Might differ depending on protein.**

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Handling

Storage Comment:	Store at -80°C.
------------------	-----------------

Expiry Date:	12 months
--------------	-----------