

Datasheet for ABIN3094030

NAT10 Protein (AA 1-1025) (Strep Tag)



[Go to Product page](#)

Overview

Quantity:	250 µg
Target:	NAT10
Protein Characteristics:	AA 1-1025
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This NAT10 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	<p>MHRKKVDNRI RILIENGVAE RQRSLFVVVG DRGKDQVVIL HHMLSKATVK ARPSVLWCYK KELGFSSHRK KMRQLQKKI KNGTLNIKQD DPFELFIAAT NIRYCYNET HKILGNTFGM CVLQDFEALT PNLLARTVET VEGGGLVVIL LRTMNSLKQL YVTMDVHSR YRTEAHQDVV GRFNERFILS LASCKKCLVI DDQLNILPIS SHVATMEALP PQTPDESLGP SDLELRELKE SLQDTQPVGV LVDCKTLDQ AKAVLKFIEG ISEKTLRSTV ALTAARGRGK SAALGLAIAG AVAFGYSNIF VTSPSPDNLH TLFEFVFKGF DALQYQEHLD YEIIQSLNPE FNAKAVIRVNV FREHRQTIQY IHPADAVKLG QAELVVIDEA AAIPPLVKS LLGPYLVFMA STINGYEGTG RSLSLKLIQQ LRQSAQSQV STTAENKTTT TARLASARTL YEVSQESIR YAPGDAVEKW LNDLLCLDCL NITRIVSGCP LPEACELYV NRDTLFCYHK ASEVFLQRLM ALYVASHYKN SPNDLQMLSD APAHHLFCLL PPVPPTQNAL PEVLAVIQVC LEGEISRQSI LNSLSRGKKA SGDLIPWTVS EQFQDPDFGG LSGGRVVRIA VHPDYQGMGY GSRALQLQM YYEGRFPCLE</p>

EKVLETPQEI HTVSSEAVSL LEEVITPRKD LPPLLLKLNE RPAERLDYLG VSYGLTPRLL
KFWKRAGFVP VYLRQTPNDL TGEHSCIMLK TLTDEDEADQ GGWLAAFWKD FRRRFLALLS
YQFSTFSPSL ALNIIQNRNM GKPAQPALS EEEALFLPY DLKRLEMYSR NMVDYHLIMD
MIPAISRIYF LNQLGDLALS AAQSALLGI GLQHKSVDQL EKEIELPSGQ LMGLFNRIIR
KVVKLFNEVQ EKAIEEQMVA AKDVVMEPTM KTLSDDLDEA AKEFQEKHKK EVGKLKSMDL
SEYIIRGDDE EWNEVLNKAG PNASIISLKS DKKRKLEAKQ EPKQSKKLKN RETKNKKDMK LKRKK

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!

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.

Product Details

- 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: NAT10

Alternative Name: NAT10 ([NAT10 Products](#))

Background: RNA cytidine acetyltransferase (EC 2.3.1.-) (18S rRNA cytosine acetyltransferase) (N-acetyltransferase 10) (N-acetyltransferase-like protein) (hALP),FUNCTION: RNA cytidine acetyltransferase that catalyzes the formation of N(4)-acetylcytidine (ac4C) modification on mRNAs, 18S rRNA and tRNAs (PubMed:25411247, PubMed:25653167, PubMed:30449621, PubMed:35679869). Catalyzes ac4C modification of a broad range of mRNAs, enhancing mRNA stability and translation (PubMed:30449621, PubMed:35679869). mRNA ac4C modification is frequently present within wobble cytidine sites and promotes translation efficiency (PubMed:30449621). Mediates the formation of ac4C at position 1842 in 18S rRNA (PubMed:25411247). May also catalyze the formation of ac4C at position 1337 in 18S rRNA (By similarity). Required for early nucleolar cleavages of precursor rRNA at sites A0, A1 and A2 during 18S rRNA synthesis (PubMed:25411247, PubMed:25653167). Catalyzes the formation of ac4C in serine and leucine tRNAs (By similarity). Requires the tRNA-binding adapter protein THUMP1 for full tRNA acetyltransferase activity but not for 18S rRNA acetylation (PubMed:25653167). In addition to RNA acetyltransferase activity, also able to acetylate lysine residues of proteins, such as histones, microtubules, p53/TP53 and MDM2, in vitro (PubMed:14592445, PubMed:17631499, PubMed:19303003, PubMed:26882543, PubMed:27993683, PubMed:30165671). The relevance of the protein lysine acetyltransferase activity is however unsure in vivo (PubMed:30449621). Activates telomerase activity by stimulating the transcription of TERT, and may also regulate telomerase function by affecting the balance of telomerase subunit assembly, disassembly, and localization (PubMed:14592445, PubMed:18082603). Involved in the regulation of centrosome duplication by acetylating CENATAC during mitosis, promoting SASS6 proteasome degradation (PubMed:31722219). Part of the small subunit (SSU) processome, first precursor of the small eukaryotic ribosomal

Target Details

subunit. During the assembly of the SSU processome in the nucleolus, many ribosome biogenesis factors, an RNA chaperone and ribosomal proteins associate with the nascent pre-rRNA and work in concert to generate RNA folding, modifications, rearrangements and cleavage as well as targeted degradation of pre-ribosomal RNA by the RNA exosome (PubMed:34516797). {ECO:0000250|UniProtKB:P53914, ECO:0000269|PubMed:14592445, ECO:0000269|PubMed:17631499, ECO:0000269|PubMed:18082603, ECO:0000269|PubMed:19303003, ECO:0000269|PubMed:25411247, ECO:0000269|PubMed:25653167, ECO:0000269|PubMed:26882543, ECO:0000269|PubMed:27993683, ECO:0000269|PubMed:30165671, ECO:0000269|PubMed:30449621, ECO:0000269|PubMed:31722219, ECO:0000269|PubMed:34516797, ECO:0000269|PubMed:35679869}.

Molecular Weight: 115.7 kDa

UniProt: [Q9H0A0](#)

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.

Handling

Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: 12 months