

Datasheet for ABIN3095635

TUT1 Protein (AA 1-874) (Strep Tag)



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Overview

Quantity:	250 µg
Target:	TUT1
Protein Characteristics:	AA 1-874
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This TUT1 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MAAVDSDVES LPRGGFRCL CHVTTANRPS LDAHLGGRKH RHLVELRAAR KAQGLRSVFV SGFPRDVDSA QLSEYFLAFG PVASVMDKD KGVFAIVEMG DVGAREAVLS QSQHSLGGHR LRVRPREQKE FQSPASKSPK GAAPDSHQLA KALAEAADVG AQMIKLVGLR ELSEAERQLR SLVVALMQEV FTEFFPGCVV HPFGSSINSF DVHGCDDLDF LDLGDLEEPQ PVPKAPESPS LDSALASPLD PQALACTPAS PPDSQPPASP QDSEALDFET PSSSLAPQTP DSALASETLA SPQSLPPASP LLEDREEGDL GKASELAETP KEEKAEGAAM LELVGSILRG CVPGVYRVQT VPSARRPVVK FCHRPGLHG DVLSNRLAL HNSRFLSLCS ELDGRVRPLV YTLRCWAQGR GLSGSGPLLS NYALTLLVIY FLQTRDPPVL PTVSQLTQKA GEGEQVEVDG WDCSFPRDAS RLEPSINVEP LSSLLAQFFS CVSCWDLRGS LLSLREGQAL PVAGGLPSNL WEGLRLGPLN LQDPFDLSHN VAANVTSRVA GRLQNCCRAA ANYCRSLQYQ RRSSRGRDWG LLPLLQPSSP SSLLSATPIP LPLAPFTQLT AALVQVFREA LGCHIEQATK RTRSEGGGTG ESSQGGTSKR

LKVDGQKNCC EEGKEEQQGC AGDGGEDRVE EMVIEVGEMV QDWAMQSPGQ PGDLPLTTGK
HGAPGEEGQP SHAALAERGP KGHEAAQEWs QGEAGKGASL PSSASWRCAL WHRVWQGRRR
ARRRLQQQTK EGAGGGAGTR AGWLATEAQV TQELKGLSGG EERPETEPLL SFVASVSPAD
RMLTVTPLQD PQGLFPDLHH FLQVFLPQAI RHLK

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.
- We use the ExPASy's ProtParam tool to determine the absorption coefficient of each protein.

Product Details

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALICE®).
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Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
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Grade:	custom-made
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Target Details

Target:	TUT1
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Alternative Name:	TUT1 (TUT1 Products)
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Background:	<p>Speckle targeted PIP5K1A-regulated poly(A) polymerase (Star-PAP) (EC 2.7.7.19) (RNA-binding motif protein 21) (RNA-binding protein 21) (U6 snRNA-specific terminal uridylyltransferase 1) (U6-TUTase) (EC 2.7.7.52),FUNCTION: Poly(A) polymerase that creates the 3'-poly(A) tail of specific pre-mRNAs (PubMed:18288197, PubMed:21102410). Localizes to nuclear speckles together with PIP5K1A and mediates polyadenylation of a select set of mRNAs, such as HMOX1 (PubMed:18288197). In addition to polyadenylation, it is also required for the 3'-end cleavage of pre-mRNAs: binds to the 3'UTR of targeted pre-mRNAs and promotes the recruitment and assembly of the CPSF complex on the 3'UTR of pre-mRNAs (PubMed:21102410). In addition to adenylyltransferase activity, also has uridylyltransferase activity (PubMed:16790842, PubMed:18288197, PubMed:28589955). However, the ATP ratio is higher than UTP in cells, suggesting that it functions primarily as a poly(A) polymerase (PubMed:18288197). Acts as a specific terminal uridylyltransferase for U6 snRNA in vitro: responsible for a controlled elongation reaction that results in the restoration of the four 3'-terminal UMP-residues found in newly transcribed U6 snRNA (PubMed:16790842, PubMed:18288197, PubMed:28589955). Not involved in replication-dependent histone mRNA degradation. {ECO:0000269 PubMed:16790842, ECO:0000269 PubMed:18288197, ECO:0000269 PubMed:21102410, ECO:0000269 PubMed:28589955}.</p>
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Molecular Weight:	93.8 kDa
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UniProt:	Q9H6E5
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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.
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Application Details

Comment:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> 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.</p> <p>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!</p>
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Restrictions:	For Research Use only
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Handling

Format:	Liquid
Buffer:	<p>The buffer composition is at the discretion of the manufacturer.</p> <p>Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol Might differ depending on protein.</p>
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months