

# Datasheet for ABIN7555607 **TUT1 Protein (AA 1-874) (His tag)**



## Overview

Quantity:	1 mg
Target:	TUT1
Protein Characteristics:	AA 1-874
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This TUT1 protein is labelled with His tag.

# **Product Details**

Purpose:	Custom-made recombinant TUT1 Protein expressed in mammalian cells.
Sequence:	MAAVDSDVES LPRGGFRCCL CHVTTANRPS LDAHLGGRKH RHLVELRAAR KAQGLRSVFV
	SGFPRDVDSA QLSEYFLAFG PVASVVMDKD KGVFAIVEMG DVGAREAVLS QSQHSLGGHR
	LRVRPREQKE FQSPASKSPK GAAPDSHQLA KALAEAADVG AQMIKLVGLR ELSEAERQLR
	SLVVALMQEV FTEFFPGCVV HPFGSSINSF DVHGCDLDLF LDLGDLEEPQ PVPKAPESPS
	LDSALASPLD PQALACTPAS PPDSQPPASP QDSEALDFET PSSSLAPQTP DSALASETLA
	SPQSLPPASP LLEDREEGDL GKASELAETP KEEKAEGAAM LELVGSILRG CVPGVYRVQT
	VPSARRPVVK FCHRPSGLHG DVSLSNRLAL 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
	Purification-Tag is based on experiences 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.
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different
	isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits:
	<ul> <li>Made to order protein - from design to production - by highly experienced protein experts.</li> <li>Protein expressed in mammalian cells and purified in one-step affinity chromatography</li> <li>The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.</li> <li>State-of-the-art algorithm used for plasmid design (Gene synthesis).</li> </ul>
	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.
	If you are not interested in a full length protein, please contact us for individual protein fragments.
	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.
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made
Target Details	
Target:	TUT1
Alternative Name:	TUT1 (TUT1 Products)
Background:	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}.

Molecular Weight:

93.8 kDa

UniProt:

Q9H6E5

### **Application Details**

Application Notes:

We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Restrictions:

For Research Use only

#### Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months