Datasheet for ABIN3086756

PUS10 Protein (AA 1-529) (Strep Tag)

1 Image

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Overview

Quantity:	1 mg
Target:	PUS10
Protein Characteristics:	AA 1-529
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PUS10 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence: MFPLTEENKH VAQLLLNTGT CPRCIFRFCG VDFHAPYKLP YKELLNELQK FLETEKDELI LEVMNPPPKK IRLQELEDSI DNLSQNGEGR ISVSHVGSTA SKNSNLNVCN VCLGILQEFC EKDFIKKVCQ KVEASGFEFT SLVFSVSFPP QLSVREHAAW LLVKQEMGKQ SLSLGRDDIV QLKEAYKWIT HPLFSEELGV PIDGKSLFEV SVVFAHPETV EDCHFLAAIC PDCFKPAKNK QSVFTRMAVM KALNKIKEED FLKQFPCPPN SPKAVCAVLE IECAHGAVFV AGRYNKYSRN LPQTPWIIDG ERKLESSVEE LISDHLLAVF KAESFNFSSS GREDVDVRTL GNGRPFAIEL VNPHRVHFTS QEIKELQQKI NNSSNKIQVR DLQLVTREAI GHMKEGEEEK TKTYSALIWT NKAIQKKDIE FLNDIKDLKI DQKTPLRVLH RRPLAVRARV IHFMETQYVD EHHFRLHLKT QAGTYIKEFV HGDFGRTKPN IGSLMNVTAD ILELDVESVD VDWPPALDD

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.

Product Details

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!

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

Product Details

	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:	PUS10
Alternative Name:	PUS10 (PUS10 Products)
Background:	TRNA pseudouridine synthase Pus10 (Hup10) (EC 5.4.99.25) (Coiled-coil domain-containing protein 139) (tRNA pseudouridine 55 synthase) (Psi55 synthase) (tRNA pseudouridylate synthase) (tRNA-uridine isomerase),FUNCTION: Protein with different functions depending on its subcellular location: involved in miRNA processing in the nucleus and acts as a tRNA pseudouridylate synthase in the cytoplasm (PubMed:31819270, PubMed:33023933). In the cytoplasm, acts as a pseudouridylate synthase by catalyzing synthesis of pseudouridine(54) and pseudouridine(55) from uracil-54 and uracil-55, respectively, in the psi GC loop of a subset of tRNAs (PubMed:30530625, PubMed:31819270, PubMed:33023933). tRNA pseudouridylate synthase activity is enhanced by the presence of 1-methyladenosine at position 53-61 of tRNAs (PubMed:30530625). Does not show tRNA pseudouridylate synthase activity in the nucleus (PubMed:33023933). In the nucleus, promotes primary microRNAs (pri-miRNAs) processing independently of its RNA pseudouridylate synthase activity (PubMed:31819270). Binds pri-miRNAs (PubMed:31819270). Modulator of TRAIL/TNFSF10-induced cell death via activation of procaspase-8 and BID cleavage (PubMed:14527409, PubMed:19712588). Required for the progression of the apoptotic signal through intrinsic mitochondrial cell death (PubMed:19712588). {ECO:0000269|PubMed:14527409, ECO:0000269|PubMed:19712588, ECO:0000269|PubMed:30530625, ECO:0000269|PubMed:31819270, ECO:0000269|PubMed:33023933}.
Molecular Weight:	60.2 kDa
UniProt:	Q3MIT2

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

Application Details

	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. 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)

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

