Datasheet for ABIN3076651

EEFSEC Protein (AA 1-596) (Strep Tag)

Go to Product page

Overview

Quantity:	250 µg
Target:	EEFSEC
Protein Characteristics:	AA 1-596
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This EEFSEC protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MAGRRVNVNV GVLGHIDSGK TALARALSTT ASTAAFDKQP QSRERGITLD LGFSCFSVPL PARLRSSLPE FQAAPEAEPE PGEPLLQVTL VDCPGHASLI RTIIGGAQII DLMMLVIDVT KGMQTQSAEC LVIGQIACQK LVVVLNKIDL LPEGKRQAAI DKMTKKMQKT LENTKFRGAP IIPVAAKPGG PEAPETEAPQ GIPELIELLT SQISIPTRDP SGPFLMSVDH CFSIKGQGTV MTGTILSGSI SLGDSVEIPA LKVVKKVKSM QMFHMPITSA MQGDRLGICV TQFDPKLLER GLVCAPESLH TVHAALISVE KIPYFRGPLQ TKAKFHITVG HETVMGRLMF FSPAPDNFDQ EPILDSFNFS QEYLFQEQYL SKDLTPAVTD NDEADKKAGQ ATEGHCPRQQ WALVEFEKPV TCPRLCLVIG SRLDADIHTN TCRLAFHGIL LHGLEDRNYA DSFLPRLKVY KLKHKHGLVE RAMDDYSVIG RSLFKKETNI QLFVGLKVHL STGELGIIDS AFGQSGKFKI HIPGGLSPES KKILTPALKK RARAGRGEAT RQEESAERSE PSQHVVLSLT FKRYVFDTHK RMVQSP **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.
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:	EEFSEC
Alternative Name:	EEFSEC (EEFSEC Products)
Background:	Selenocysteine-specific elongation factor (EC 3.6.5.-) (Elongation factor sec) (Eukaryotic elongation factor, selenocysteine-tRNA-specific),FUNCTION: Translation factor required for the incorporation of the rare amino acid selenocysteine encoded by UGA codons (PubMed:27708257, PubMed:35709277). Replaces the eRF1-eRF3-GTP ternary complex for the insertion of selenocysteine directed by the UGA codon (PubMed:27708257, PubMed:35709277). Insertion of selenocysteine at UGA codons is mediated by SECISBP2 and EEFSEC: SECISBP2 (1) specifically binds the SECIS sequence once the 80S ribosome encounters an in-frame UGA codon and (2) contacts the RPS27A/eS31 of the 40S ribosome before ribosome stalling (PubMed:35709277). (3) GTP-bound EEFSEC then delivers selenocysteinyl-tRNA(Sec) to the 80S ribosome and adopts a preaccommodated state conformation (PubMed:35709277). (4) After GTP hydrolysis, EEFSEC dissociates from the assembly, selenocysteinyl-tRNA(Sec) accommodates, and peptide bond synthesis and selenoprotein elongation occur (PubMed:35709277). {ECO:0000269|PubMed:27708257, ECO:0000269|PubMed:35709277}.
Molecular Weight:	65.3 kDa
UniProt:	P57772

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!

Application Details

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
Storage Comment:	Store at -80°C.
Expiry Date:	12 months