Datasheet for ABIN3115069

EXT1 Protein (AA 1-746) (Strep Tag)

Go to Product page

Overview

Quantity:	250 µg
Target:	EXT1
Protein Characteristics:	AA 1-746
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This EXT1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Brand:	AliCE®
Sequence:	MQAKKRYFIL LSAGSCLALL FYFGGLQFRA SRSHSRREEH SGRNGLHHPS PDHFWPRFPD ALRPFVPWDQ LENEDSSVHI SPRQKRDANS SIYKGKKCRM ESCFDFTLCK KNGFKVYVYP QQKGEKIAES YQNILAAIEG SRFYTSDPSQ ACLFVLSLDT LDRDQLSPQY VHNLRSKVQS LHLWNNGRNH LIFNLYSGTW PDYTEDVGFD IGQAMLAKAS ISTENFRPNF DVSIPLFSKD HPRTGGERGF LKFNTIPPLR KYMLVFKGKR YLTGIGSDTR NALYHVHNGE DVVLLTTCKH GKDWQKHKDS RCDRDNTEYE KYDYREMLHN ATFCLVPRGR RLGSFRFLEA LQAACVPVML SNGWELPFSE VINWNQAAVI GDERLLLQIP STIRSIHQDK ILALRQQTQF LWEAYFSSVE KIVLTTLEII QDRIFKHISR NSLIWNKHPG GLFVLPQYSS YLGDFPYYYA NLGLKPPSKF TAVIHAVTPL VSQSQPVLKL LVAAAKSQYC AQIIVLWNCD KPLPAKHRWP ATAVPVVVIE GESKVMSSRF LPYDNIITDA VLSLDEDTVL STTEVDFAFT VWQSFPERIV GYPARSHFWD NSKERWGYTS KWTNDYSMVL TGAAIYHKYY HYLYSHYLPA SLKNMVDQLA NCEDILMNFL

VSAVTKLPPI KVTQKKQYKE TMMGQTSRAS RWADPDHFAQ RQSCMNTFAS WFGYMPLIHS QMRLDPVLFK DQVSILRKKY RDIERL

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®).

Product Details

Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	EXT1
Alternative Name:	EXT1 (EXT1 Products)
Background:	Exostosin-1 (EC 2.4.1.225) (Exostosin glycosyltransferase 1) (Heparan sulfate co-polymerase subunit EXT1) (Multiple exostoses protein 1) (N-acetylglucosaminyl-proteoglycan 4-beta-glucuronosyltransferase),FUNCTION: Glycosyltransferase forming with EXT2 the heterodimeric heparan sulfate polymerase which catalyzes the elongation of the heparan sulfate glycan backbone (PubMed:9620772, PubMed:10639137, PubMed:22660413, PubMed:36402845, PubMed:36593275). Glycan backbone extension consists in the alternating transfer of (1->4)-beta-D-GlcA and (1->4)-alpha-D-GlcNAc residues from their respective UDP-sugar donors. Both EXT1 and EXT2 are required for the full activity of the polymerase since EXT1 bears the N-acetylglucosaminyl-proteoglycan 4-beta-glucuronosyltransferase activity within the complex while EXT2 carries the glucuronosyl-N-acetylglucosaminyl-proteoglycan 4-alpha-N-acetylglucosaminyltransferase activity (PubMed:36402845, PubMed:36593275). Heparan sulfate proteoglycans are ubiquitous components of the extracellular matrix and play an important role in tissue homeostasis and signaling (PubMed:9620772, PubMed:10639137, PubMed:22660413, PubMed:11391482). {ECO:0000269|PubMed:10639137, ECO:0000269|PubMed:11391482, ECO:0000269|PubMed:22660413, ECO:0000269|PubMed:36402845, ECO:0000269|PubMed:36593275, ECO:0000269|PubMed:9620772}.
Molecular Weight:	86.3 kDa
UniProt:	Q16394
Pathways:	Glycosaminoglycan Metabolic Process

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

Application Details

	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. 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