Datasheet for ABIN3092511

EXD2 Protein (AA 1-621) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	EXD2
Protein Characteristics:	AA 1-621
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This EXD2 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MSRQNLVALT VTTLLGVAVG GFVLWKGIQR RRRSKTSPVT QQPQQKVLGS RELPPPEDDQ LHSSAPRSSW KERILKAKVV TVSQEAEWDQ IEPLLRSELE DFPVLGIDCE WVNLEGKASP LSLLQMASPS GLCVLVRLPK LICGGKTLPR TLLDILADGT ILKVGVGCSE DASKLLQDYG LVVRGCLDLR YLAMRQRNNL LCNGLSLKSL AETVLNFPLD KSLLLRCSNW DAETLTEDQV IYAARDAQIS VALFLHLLGY PFSRNSPGEK NDDHSSWRKV LEKCQGVVDI PFRSKGMSRL GEEVNGEATE SQQKPRNKKS KMDGMVPGNH QGRDPRKHKR KPLGVGYSAR KSPLYDNCFL HAPDGQPLCT CDRRKAQWYL DKGIGELVSE EPFVVKLRFE PAGRPESPGD YYLMVKENLC VVCGKRDSYI RKNVIPHEYR KHFPIEMKDH NSHDVLLLCT SCHAISNYYD NHLKQQLAKE FQAPIGSEEG LRLLEDPERR QVRSGARALL NAESLPTQRK EELLQALREF YNTDVVTEEM LQEAASLETR ISNENYVPHG LKVVQCHSQG GLRSLMQLES RWRQHFLDSM QPKHLPQQWS VDHNHQKLLR KFGEDLPIQL S

Product Details

	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).

Product Details

Grade:	custom-made

Target Details

Target:	EXD2
Alternative Name:	EXD2 (EXD2 Products)
Background:	Exonuclease 3'-5' domain-containing protein 2 (EC 3.1.11.1) (3'-5' exoribonuclease EXD2) (EC 3.1.13.-) (Exonuclease 3'-5' domain-like-containing protein 2),FUNCTION: Exonuclease that has both 3'-5' exoribonuclease and exodeoxyribonuclease activities, depending on the divalent metal cation used as cofactor (PubMed:29335528, PubMed:31127291). In presence of Mg(2+), only shows 3'-5' exoribonuclease activity, while it shows both exoribonuclease and exodeoxyribonuclease activities in presence of Mn(2+) (PubMed:29335528, PubMed:31127291). Acts as an exoribonuclease in mitochondrion, possibly by regulating ATP production and mitochondrial translation (PubMed:29335528). Also involved in the response to DNA damage (PubMed:26807646, PubMed:31255466). Acts as 3'-5' exodeoxyribonuclease for double-strand breaks resection and efficient homologous recombination (PubMed:20603073, PubMed:26807646). Plays a key role in controlling the initial steps of chromosomal break repair, it is recruited to chromatin in a damage-dependent manner and functionally interacts with the MRN complex to accelerate resection through its 3'-5' exonuclease activity, which efficiently processes double-stranded DNA substrates containing nicks (PubMed:26807646). Also involved in response to replicative stress: recruited to stalled forks and is required to stabilize and restart stalled replication forks by restraining excessive fork regression, thereby suppressing their degradation (PubMed:31255466). {ECO:0000269|PubMed:20603073, ECO:0000269|PubMed:26807646, ECO:0000269|PubMed:29335528, ECO:0000269|PubMed:31127291, ECO:0000269|PubMed:31255466}.
Molecular Weight:	70.4 kDa
UniProt:	Q9NVH0

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

Application Details

	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