Datasheet for ABIN3092379

ERCC3 Protein (AA 1-782) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	ERCC3
Protein Characteristics:	AA 1-782
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ERCC3 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Brand:	AliCE®
Sequence:	MGKRDRADRD KKKSRKRHYE DEEDDEEDAP GNDPQEAVPS AAGKQVDESG TKVDEYGAKD YRLQMPLKDD HTSRPLWVAP DGHIFLEAFS PVYKYAQDFL VAIAEPVCRP THVHEYKLTA YSLYAAVSVG LQTSDITEYL RKLSKTGVPD GIMQFIKLCT VSYGKVKLVL KHNRYFVESC HPDVIQHLLQ DPVIRECRLR NSEGEATELI TETFTSKSAI SKTAESSGGP STSRVTDPQG KSDIPMDLFD FYEQMDKDEE EEEETQTVSF EVKQEMIEEL QKRCIHLEYP LLAEYDFRND SVNPDINIDL KPTAVLRPYQ EKSLRKMFGN GRARSGVIVL PCGAGKSLVG VTAACTVRKR CLVLGNSAVS VEQWKAQFKM WSTIDDSQIC RFTSDAKDKP IGCSVAISTY SMLGHTTKRS WEAERVMEWL KTQEWGLMIL DEVHTIPAKM FRRVLTIVQA HCKLGLTATL VREDDKIVDL NFLIGPKLYE ANWMELQNNG YIAKVQCAEV WCPMSPEFYR EYVAIKTKKR ILLYTMNPNK FRACQFLIKF HERRNDKIIV FADNVFALKE YAIRLNKPYI YGPTSQGERM QILQNFKHNP KINTIFISKV GDTSFDLPEA NVLIQISSHG GSRRQEAQRL GRVLRAKKGM VAEEYNAFFY

SLVSQDTQEM AYSTKRQRFL VDQGYSFKVI TKLAGMEEED LAFSTKEEQQ QLLQKVLAAT DLDAEEEVVA GEFGSRSSQA SRRFGTMSSM SGADDTVYME YHSSRSKAPS KHVHPLFKRF RK

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:	ERCC3
Alternative Name:	ERCC3 (ERCC3 Products)
Background:	General transcription and DNA repair factor IIH helicase subunit XPB (TFIIH subunit XPB) (EC 3.6.4.12) (Basic transcription factor 2 89 kDa subunit) (BTF2 p89) (DNA excision repair protein ERCC-3) (DNA repair protein complementing XP-B cells) (TFIIH basal transcription factor complex 89 kDa subunit) (TFIIH 89 kDa subunit) (TFIIH p89) (Xeroderma pigmentosum group B-complementing protein),FUNCTION: ATP-dependent 3'-5' DNA helicase, component of the general transcription and DNA repair factor IIH (TFIIH) core complex, which is involved in general and transcription-coupled nucleotide excision repair (NER) of damaged DNA and, when complexed to CAK, in RNA transcription by RNA polymerase II. In NER, TFIIH acts by opening DNA around the lesion to allow the excision of the damaged oligonucleotide and its replacement by a new DNA fragment. The ATPase activity of XPB/ERCC3, but not its helicase activity, is required for DNA opening. In transcription, TFIIH has an essential role in transcription initiation (PubMed:8157004, PubMed:30894545). When the pre-initiation complex (PIC) has been established, TFIIH is required for promoter opening and promoter escape (PubMed:8157004). The ATP-dependent helicase activity of XPB/ERCC3 is required for promoter opening and promoter escape. Phosphorylation of the C-terminal tail (CTD) of the largest subunit of RNA polymerase II by the kinase module CAK controls the initiation of transcription. {ECO:0000269|PubMed:10024882, ECO:0000269|PubMed:30894545, ECO:0000269|PubMed:8157004}.
Molecular Weight:	89.3 kDa
UniProt:	P19447
Pathways:	DNA Damage Repair

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.

Application Details

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. 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