Datasheet for ABIN3095104

DIS3 Protein (AA 1-958) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	DIS3
Protein Characteristics:	AA 1-958
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This DIS3 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MLKSKTFLKK TRAGGVMKIV REHYLRDDIG CGAPGCAACG GAHEGPALEP QPQDPASSVC PQPHYLLPDT NVLLHQIDVL EDPAIRNVIV LQTVLQEVRN RSAPVYKRIR DVTNNQEKHF YTFTNEHHRE TYVEQEQGEN ANDRNDRAIR VAAKWYNEHL KKMSADNQLQ VIFITNDRRN KEKAIEEGIP AFTCEEYVKS LTANPELIDR LACLSEEGNE IESGKIIFSE HLPLSKLQQG IKSGTYLQGT FRASRENYLE ATVWIHGDNE ENKEIILQGL KHLNRAVHED IVAVELLPKS QWVAPSSVVL HDEGQNEEDV EKEEETERML KTAVSEKMLK PTGRVVGIIK RNWRPYCGML SKSDIKESRR HLFTPADKRI PRIRIETRQA STLEGRRIIV AIDGWPRNSR YPNGHFVRNL GDVGEKETET EVLLLEHDVP HQPFSQAVLS FLPKMPWSIT EKDMKNREDL RHLCICSVDP PGCTDIDDAL HCRELENGNL EVGVHIADVS HFIRPGNALD QESARRGTTV YLCEKRIDMV PELLSSNLCS LKCDVDRLAF SCIWEMNHNA EILKTKFTKS VINSKASLTY AEAQLRIDSA NMNDDITTSL RGLNKLAKIL KKRRIEKGAL TLSSPEVRFH MDSETHDPID LQTKELRETN

SMVEEFMLLA NISVAKKIHE EFSEHALLRK HPAPPPSNYE ILVKAARSRN LEIKTDTAKS LAESLDQAES PTFPYLNTLL RILATRCMMQ AVYFCSGMDN DFHHYGLASP IYTHFTSPIR RYADVIVHRL LAVAIGADCT YPELTDKHKL ADICKNLNFR HKMAQYAQRA SVAFHTQLFF KSKGIVSEEA YILFVRKNAI VVLIPKYGLE GTVFFEEKDK PNPQLIYDDE IPSLKIEDTV FHVFDKVKVK IMLDSSNLQH QKIRMSLVEP QIPGISIPTD TSNMDLNGPK KKKMKLGK

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.

Product Details

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:	DIS3
Alternative Name:	DIS3 (DIS3 Products)
Background:	Exosome complex exonuclease RRP44 (EC 3.1.13.-) (EC 3.1.26.-) (Protein DIS3 homolog) (Ribosomal RNA-processing protein 44),FUNCTION: Putative catalytic component of the RNA exosome complex which has 3'->5' exoribonuclease activity and participates in a multitude of cellular RNA processing and degradation events. In the nucleus, the RNA exosome complex is involved in proper maturation of stable RNA species such as rRNA, snRNA and snoRNA, in the elimination of RNA processing by-products and non-coding 'pervasive' transcripts, such as antisense RNA species and promoter-upstream transcripts (PROMPTs), and of mRNAs with processing defects, thereby limiting or excluding their export to the cytoplasm. The RNA exosome may be involved in Ig class switch recombination (CSR) and/or Ig variable region somatic hypermutation (SHM) by targeting AICDA deamination activity to transcribed dsDNA substrates. In the cytoplasm, the RNA exosome complex is involved in general mRNA turnover and specifically degrades inherently unstable mRNAs containing AU-rich elements (AREs) within their 3' untranslated regions, and in RNA surveillance pathways, preventing translation of aberrant mRNAs. It seems to be involved in degradation of histone mRNA. DIS3 has both 3'-5' exonuclease and endonuclease activities. {ECO:0000269|PubMed:19056938, ECO:0000269|PubMed:20531386}.
Molecular Weight:	109.0 kDa
UniProt:	Q9Y2L1

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