Datasheet for ABIN3095964

TOP3B Protein (AA 1-862) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	TOP3B
Protein Characteristics:	AA 1-862
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This TOP3B protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence:	MKTVLMVAEK PSLAQSIAKI LSRGSLSSHK GLNGACSVHE YTGTFAGQPV RFKMTSVCGH VMTLDFLGKY NKWDKVDPAE LFSQAPTEKK EANPKLNMVK FLQVEGRGCD YIVLWLDCDK EGENICFEVL DAVLPVMNKA HGGEKTVFRA RFSSITDTDI CNAMACLGEP DHNEALSVDA RQELDLRIGC AFTRFQTKYF QGKYGDLDSS LISFGPCQTP TLGFCVERHD KIQSFKPETY WVLQAKVNTD KDRSLLLDWD RVRVFDREIA QMFLNMTKLE KEAQVEATSR KEKAKQRPLA LNTVEMLRVA SSSLGMGPQH AMQTAERLYT QGYISYPRTE TTHYPENFDL KGSLRQQANH PYWADTVKRL LAEGINRPRK GHDAGDHPPI TPMKSATEAE LGGDAWRLYE YITRHFIATV SHDCKYLQST ISFRIGPELF TCSGKTVLSP GFTEVMPWQS VPLEESLPTC QRGDAFPVGE VKMLEKQTNP PDYLTEAELI TLMEKHGIGT DASIPVHINN ICQRNYVTVE SGRRLKPTNL GIVLVHGYYK IDAELVLPTI RSAVEKQLNL IAQGKADYRQ VLGHTLDVFK RKFHYFVDSI AGMDELMEVS FSPLAATGKP LSRCGKCHRF MKYIQAKPSR LHCSHCDETY TLPQNGTIKL YKELRCPLDD FELVLWSSGS RGKSYPLCPY CYNHPPFRDM KKGMGCNECT HPSCQHSLSM

LGIGQCVECE SGVLVLDPTS GPKWKVACNK CNVVAHCFEN AHRVRVSADT CSVCEAALLD VDFNKAKSPL PGDETQHMGC VFCDPVFQEL VELKHAASCH PMHRGGPGRR QGRGRGRARR PPGKPNPRRP KDKMSALAAY FV

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 by multi-step, protein-specific process to ensure correct folding and modification.
- 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 will ensure that you receive a correctly folded 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 in several dilutions and is measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Product Details

Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): 1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE. 2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)

Target Details

Target:	TOP3B
Alternative Name:	TOP3B (TOP3B Products)
Background:	DNA topoisomerase 3-beta-1 (EC 5.6.2.1) (DNA topoisomerase III beta-1),FUNCTION: Releases the supercoiling and torsional tension of DNA introduced during the DNA replication and transcription by transiently cleaving and rejoining one strand of the DNA duplex. Introduces a single-strand break via transesterification at a target site in duplex DNA. The scissile phosphodiester is attacked by the catalytic tyrosine of the enzyme, resulting in the formation of a DNA-(5'-phosphotyrosyl)-enzyme intermediate and the expulsion of a 3'-OH DNA strand. The free DNA strand than undergoes passage around the unbroken strand thus removing DNA supercoils. Finally, in the religation step, the DNA 3'-OH attacks the covalent intermediate to expel the active-site tyrosine and restore the DNA phosphodiester backbone (By similarity). Possesses negatively supercoiled DNA relaxing activity. {ECO:0000250}.
Molecular Weight:	96.7 kDa
UniProt:	O95985

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

Application Details

	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. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)