Datasheet for ABIN3131924

TOP3A Protein (AA 1-1003) (Strep Tag)

Go to Product page

Overview

Quantity:	250 µg
Target:	TOP3A
Protein Characteristics:	AA 1-1003
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This TOP3A protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MIFPVTLLAF QWHRRPGGRA LSRAAMEVAF RGVRKVLCVA EKNDAAKGIA DLLSNGRMRR KEGLSKFNKI YEFDYHLYGQ NVTMIMTSVS GHLLAHDFQM QFRKWQSCNP LVLFEAEIEK YCPENFIDIK KTLERETHHC QALVIWTDCD REGENIGFEI IHVCKAVKPN LRVLRARFSE ITPHAVRTAC ENLTEPDQRV SDAVDVRQEL DLRIGAAFTR FQTLRLQRIF PEVLAEQLIS YGSCQFPTLG FVVERFKAIQ AFVPEVFHKI KVTHDHKDGT VEFNWKRYRL FNHTACLVLY QLCMEDPMAT VVEVRSKPKS KWRPQALDTV ELEKLASRKL RINAKETMRI AEKLYTQGYI SYPRTETNIF PKDLNLVALV EQQTVDPHWG AFAQTILERG GPTPRNGSKS DQAHPPIHPT KYTSGLQGDD RRLYEFIVRH FLACCSQDAQ GQETTVEIDI AQERFVAHGL IILARNYLDV YPYDHWSDKL LPVYEQGSHF QPSTVEMVDG ETSPPQLLTE ADLIALMEKH GIGTDATHAE HIETIKARMY VGLTSDKRFL PGHLGMGLVE GYDSMGYEMS KPDLRAELEA DLKLICEGKK DKFQVLRQQV QKYKQVFIEA VAKAKKLDEA LSQYLGERTE MAQQEEIYPA MPEPVRKCPQ

CNKDMVLKTK KSGGFYLSCM GFPECRSAVW FPDSVLEASR DNSVCSVCQP PPVYRLKLKF KRGSLPPAMP LEFVGCIGGC DETLKEIFGL RFPRALPRAS QPSGHLQASQ ALNRMDSSQH NLSQPLVNRH TRPSKTVAQA LLPPTTAGES NSVTCNCGRE AVLLTVRKQG PNQGRHFYKC SNGDCNFFLW ADSSHSTGGG TPTSASGPPG SSVGCPSSVG SHMDGFGSLG SDSDGGTPCL CGQPAVTRTV QKDGPNKGRQ FHTCAKPREQ QCGFFQWVDE NVAPGSFAAP AWPGGRGKAQ RPEAASKRPR AGSSDAGSTV KKPRKCSLCH QPGHTRTFCP QNR

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.

Product Details

- 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).
Grade:	custom-made

Target Details

Target:	TOP3A
Alternative Name:	Top3a (TOP3A Products)
Background:	DNA topoisomerase 3-alpha (EC 5.6.2.1) (DNA topoisomerase III alpha),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 then 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. As an essential component of the RMI complex it is involved in chromosome separation and the processing of homologous recombination intermediates to limit DNA crossover formation in cells. Has DNA decatenation activity. It is required for mtDNA decatenation and segregation after completion of replication, in a process that does not require BLM, RMI1 and RMI2. {ECO:0000250|UniProtKB:Q13472}.
Molecular Weight:	112.4 kDa
UniProt:	O70157
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.

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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

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