

Datasheet for ABIN3134769

Topoisomerase II alpha Protein (AA 1-1528) (His tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	Topoisomerase II alpha (TOP2A)
Protein Characteristics:	AA 1-1528
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Topoisomerase II alpha protein is labelled with His tag.
Application:	Western Blotting (WB), ELISA, Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence:	MELSPLQPVN ENMLMNKKKN EDGKKRLSIE RIYQKKTQLE HILLRPDTYI GSVELVTQQM WVYDEDVGIN YREVTFVPGL YKIFDEILVN AADNKQRDPK MSCIRVTIDP ENNVISIWNN GKGIPVVEHK VEKIYVPALI FGQLLTSSNY DDDEKKVTGG RNYGAKLCN IFSTKFTVET ASREYKKMFK QTWMDNMGRA GDMELKPFSG EDYTCITFQP DLSKFKMQSL DKDIVALMVR RAYDIAGSTK DVKVFLNGNS LPVKGFRSYV DLYLKDKVDE TGNSLKVIHE QVNPRWEVCL TMSERGFQQI SFVNSIATSK GGRHVDYVAD QIVSKLVDVV KKKNKGGVAV KAHQVKNHMW IFVNALIENP TFDSQTKENM TLQAKSFGST CQLSEKFIKA AIGCGIVESI LNWWKFKAQI QLNKKCSAVK HTKIKGIPKL DDANDAGSRN STECTLILTE GDSAKTLAVS GLGVVGRDKY GVFPLRGKIL NVREASHKQI MENAEINNII KIVGLQYKKN YEDEDLTKL RYKIMIMTD QDQDGSIIKG LLINFIHHNW PSLLRHRFLE EFITPIVKVS KNKQEIAFYS LPEFEEWKSS TPNHKKWKVK YYKGLGTSTS KEAKEYFADM KRHRIQFKYS GPEDDAAISL AFSKKQVDDR KEWLTFNMED RRQRKLLGLP EDYLYGQSTS YLTYNDFINK ELILFSNSDN ERSIPSMVDG
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LKPGQRKVLV TCFKRNDKRE VKVAQLAGSV AEMSSYHHGE MSLMMTIINL AQNFVGSNNL
NLLQPIGQFG TRLHGGKDSA SPRYIFTMLS PLARLLFPPK DDHTLRFLYD DNQRVEPEWY
IPIIPMVLIN GAEGIGTGWS CKIPNFDVRE VVNNIRRLD GEEPLPMLPS YKNFKGTIEE
LASNQYVING EVAILDSTTI EISELPIRTW TQTYKEQVLE PMLNGTEKTP SLITDYREYH
TDTTVKFVIK MTEEKLAEE RVGLHKVFKL QSSLTCNSMV LFDHVGCLKK YDTVLDILRD
FFELRLKYYG LRKEWLLGML GAESSKLNNQ ARFILEKIDG KIVIENKPKK ELIKVLIQRG
YDSDPVKAWK EAQQKVPDEE ENEESDTETS TSDSAAEAGP TFNYLLDMPL WYLTKKDE
LCKQRNEKEQ ELNTLKQKSP SDLWKEDLAV FIEELEVVEA KEKQDEQVGL PGKAGKAKGK
KAQMCADVLP SPRGKRVIPQ VTVEMKAEAE KKIRKKIKSE NVEGTPAEDG AEPGSLRQRI
EKKQKKEPGA KKQTTLPPFKP VKKGRKKNPW SDESSEVSSN ESNVDVPPRQ KEQRSAAAKA
KFTVDLDSDE DFSGLDEKDE DEDFLPLDAT PPKAKIPPKN TKKALKTQGS SMSVVDLESD
VKDSVPASPG VPAADFPAET EQSKPSKKT VGVKKTATKSQ SSVSTAGTKK RAAPKGTKSD
SALSARVSEK PAPAKAKNSR KRKPSSSDSS DSDFERAISK GATSKKAKGE EQDFPVDLED
TIAPRAKSDR ARKPIKYLEE SDDDDDLF

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Mouse Top2a Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- 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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

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.

Product Details

	The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.
Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: <ol style="list-style-type: none">1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. 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:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	Topoisomerase II alpha (TOP2A)
Alternative Name:	Top2a (TOP2A Products)
Background:	Control of topological states of DNA by transient breakage and subsequent rejoining of DNA strands. Topoisomerase II makes double-strand breaks. Essential during mitosis and meiosis for proper segregation of daughter chromosomes. May play a role in regulating the period length of ARNTL/BMAL1 transcriptional oscillation (PubMed:24321095). {ECO:0000269 PubMed:1331984, ECO:0000269 PubMed:24321095}.
Molecular Weight:	173.7 kDa Including tag.
UniProt:	Q01320
Pathways:	Cell Division Cycle, Mitotic G1-G1/S Phases

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:	Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher

Application Details

molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

Restrictions: For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

Images



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process