

Datasheet for ABIN7555789

TOP3A Protein (AA 1-1001) (His tag)[Go to Product page](#)

Overview

Quantity:	1 mg
Target:	TOP3A
Protein Characteristics:	AA 1-1001
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This TOP3A protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant TOP3A Protein expressed in mammalian cells.
Sequence:	MIFPVARYAL RWLRRPEDRA FSRAAMEMAL RGVKVLCA EKNDAAKGIA DLLSNGRMRR REGLSKFNKI YFDYHLYGQ NVTMVMSTVS GHLLAHDFQM QFRKWQSCNP LVLFEAEIEK YCPENFVDIK KTLERETRQC QALVIWTD CD REGENIGFEI IHVCKAVKPN LQVLRARFSE ITPHAVRTAC ENLTEPDQRV SDAVDVRQEL DLRIGAAFTR FQTLRLQRIF PEVLAEQLIS YGSCQFPTLG FVVERFKAIQ AFVPEIFHRI KVTHDHK DGI VEFNWKRHRL FNHTACLVLVY QLCVEDPMAT VVEVRSKPKS KWRPQALDTV ELEKLASRKL RINAKETMRI AEKLYTQGYI SYPRTETNIF PRDLNLTVLV EQQTPDPRWG AFAQSILERG GPTPRNGNKS DQAHPIIHPT KYTNLQGD E QRLYEFIVRH FLACCSQDAQ GQETTVEIDI AQERFVAHGL MILARNYLDV YPYDHWSDKI LPVYEQGSHF QPSTVEMVDG ETSPPKLLTE ADLIALMEKH GIGTDATHAE HIETIKARMY VGLTPDKRFL PGHLGMGLVE GYDSMGYEMS KPDLRAELEA DLKLCIDGKK DKFVVL RQQV QKYKQVFIEA VAKAKKLDEA LAQYFGNGTE LAQQEDIYPA MPEPIRKCPQ CNKDMVLKTK KNGGFYLSCM GFPECRSAVW LPDSVLEASR DSSVCPVCQP HPVYRLKLFK

Product Details

KRGLPPTMP LEFVCCIGGC DDTLREILD L RFSGGPPRAS QPSGRLQANQ SLNRMDNSQH
PQPADSRQTG SSKALAQTLP PPTAAGESNS VTCNCGQEA V LLTVRKEGPN RGRQFFKCNG
GSCNFFLWAD SPNPGAGGPP ALAYRPLGAS LGCPPGPGIH LGGFGNPGDG SGGTSC LCS
QPSVTRTVQK DGNPKGRQFH TCAKPREQQC GFFQWVDENT APGTSGAPSW TGDRGRTLES
EARSKRPRAS SSDMGSTAKK PRKCSLCHQP GHTRPFCPQN R **Sequence without tag. The proposed Purification-Tag is based on experiences 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.**

Specificity: If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.

Characteristics: Key Benefits:

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- 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.

If you are not interested in a full length protein, please contact us for individual protein fragments.

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.

Purity: > 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, 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

Target Details

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 (PubMed:30057030). It is required for mtDNA decatenation and segregation after completion of replication, in a process that does not require BLM, RMI1 and RMI2 (PubMed:29290614). {ECO:0000269|PubMed:20445207, ECO:0000269|PubMed:29290614, ECO:0000269|PubMed:30057030, ECO:0000269|PubMed:8622991}.

Molecular Weight: 112.4 kDa

UniProt: [Q13472](#)

Pathways: [DNA Damage Repair](#)

Application Details

Application Notes: We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition 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: 12 months