

Recombinant Human Topoisomerase I protein ab82099

Description

Product name	Recombinant Human Topoisomerase I protein
Purity	> 95 % SDS-PAGE. Purified by using an affinity column and FPLC chromatography.
Expression system	Baculovirus infected insect cells
Accession	<u>P11387</u>
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	<p>MSGDHLHNSQIEADFRLNDSHKHKDKHKDREHRHKEH KKEKDREKSKHS NSEHKDSEKKHKEKEKTKHKDGSSEKHKDKHKDRDKEK RKEEKVRASGDA KIKKEKENGFSPPQIKDEPEDDGYFVPPKEDIKPLKRPR DEDDADYKPK KIKTEDTKKEKKRKLEEEEDGKLKKPKNKDKDKKVPED NKKKKPKKEEE QKWKWWEEERYPEGIKWKFLHKGPFVAPPYEPLPENV KFYYDGKVMKLS PKAEVATFFAKMLDHEYTTKEIFRKNFFKDWRKEMTNEE KNIITNLSKC DFTQMSQYFKAQTEARKQMSKEEKLKIKEENEKLLKEYGF CIMDNHKERI ANFKIEPPGLFRGRGNHPKMGMLKRRIMPEDIIINCSKDAK VPSPPPGHK WKEVRHDNKVTWLVSWTENIQGSIKYIMLPSSRIKGEKD WQKYETARRL KKCVDKIRNQYREDWKSKEMKVRQRAVALYFIDKLALRA GNEKEEGETAD TVGCCSLRVEHINLHPELDGQEYVVEFDLFGKDSIRYYNK VPVEKRVFKN LQLFMENKQPEDDLFDRLNTGILNKHQLQDLMEGLTAKVFR TYNASITLQQ QLKELTAPDENIPAKILSYNRANRAVAILCNHQRAPPKTFE KSMMNLQTK</p>

IDAKKEQLADARRDLKSAKADAKVMKDAKTKKVVESKKK
 AVQRLEEQLMK
 LEVQATDREENKQIALGTSKLNYLDPRITVAWCKKWGVPI
 EKYNKTQRE KFAWAIDMADEDYEF

Amino acids	1 to 765
Tags	His tag N-Terminus

Specifications

Our **Abpromise guarantee** covers the use of **ab82099** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE
Form	Liquid
Additional notes	1 unit equals 1 nanogram purified protein. 0.1 – 1 unit (ng) is sufficient for relaxing 0.5 µg of pBR322 supercoiled DNA in a 20 µl reaction. Purified topo I has been used for in vitro transcriptional activation, pre-mRNA splicing/phosphorylation, DNA binding and DNA relaxation assays.

Preparation and Storage

Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles. pH: 7.9 Constituents: 0.75% Potassium chloride, 0.0154% DTT, 0.316% Tris HCl, 0.00584% EDTA, 20% Glycerol (glycerin, glycerine)
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General Info

Function	The reaction catalyzed by topoisomerases leads to the conversion of one topological isomer of DNA to another.
Involvement in disease	Note=A chromosomal aberration involving TOP1 is found in a form of therapy-related myelodysplastic syndrome. Translocation t(11;20)(p15;q11) with NUP98.
Sequence similarities	Belongs to the eukaryotic type I topoisomerase family.
Post-translational modifications	Sumoylated. Lys-117 is the main site of sumoylation. Sumoylation plays a role in partitioning TOP1 between nucleoli and nucleoplasm. Levels are dramatically increased on camptothecin (CPT) treatment.
Cellular localization	Nucleus > nucleolus. Nucleus > nucleoplasm. Diffuse nuclear localization with some enrichment in nucleoli. On CPT treatment, cleared from nucleoli into nucleoplasm. Sumoylated forms found in both nucleoplasm and nucleoli.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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