

Active Recombinant Human TOP1, His-tagged

Cat. No. TOP1-3745H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human topoisomerase I produced in Sf9 cells is a single polypeptide chain with a 6His tag at the N-terminus. It contains 779 (15+764) amino acids having a predicted molecular mass of approximately 92.5kD, but migrates in SDS-PAGE with an apparent molecular mass of 105kD.
Species	Human
Source	Insect Cells
Description	This gene encodes a DNA topoisomerase, an enzyme that controls and alters the topologic states of DNA during transcription. This enzyme catalyzes the transient breaking and rejoining of a single strand of DNA which allows the strands to pass through one another, thus altering the topology of DNA. This gene is localized to chromosome 20 and has pseudogenes which reside on chromosomes 1 and 22.
Form	20mM Tris-Cl (pH7.9), 20% Glycerol, 100mM NaCl, 1mM DTT and 0.5mM EDTA
Bio-activity	DNA Topoisomerase I catalyzes the latering the topology of DNA during transcription and replication. Recombinant Topo I protein is ideal for the studies of DNA topology and other related function assays.
AA Sequence	MHHHHHHGRRASVEFSGDHLHNSQIEADFRNLNDSHKHKDKHKDREHRHKEHKKE KDREKSKHSNSEHKDSEKK HKEKEKTKHKDGSSEKHKDKHKDRDKEKRKEEKVRA SGDAKIKKEKENGFSPPQIKDEPEDDGYFVPPKEDIK PLKRPRDEDDADYKPKKIK TEDTKKEKKRKLEEEEDGKLKKPKNKDKDKKVPEPDNKKKKPKKEEQKWKWWE

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EERYPEGIKWKFLHKGPFVAPPYEPLPENVKFYDYGKVMKLSPKAEEVATFFAKML
 DHEYTTKEIFRKNFFKD WRKEMTNEEKNIITNLSKCDFTQMSQYFKAQTEARKQMS
 KEEKLKIKEENEKLLKEYGFCIMDNHKERIANFK IEPPLFRGRGNHPKMGMLKRRI
 MPEDIIINCSKDAKVPSPPPGHKWKEVRHDNKVTWLVSWTENIQGSIKIM LNPSSR
 IKGEKDWQKYETARRLKKCVDKIRNQYREDWKSSEMVRQRAVALYFIDKLALRAG
 NEKEEGETADT VGCCSLRVEHINLHPELDGQEYVVEFDLFGKDSIRYYNKVPVEKR
 VFKNLQLFMENKQPEDDLFDRLNTGILNK HLQDLMEGLTAKVFRTYNASITLQQQLK
 ELTAPDENIPAKILSYNRRANRAVAILCNHQRAPPKTFEKSMMNLQ TKIDAKKEQLADA
 RRDLSAKADAKVMKDAKTKKVVESKKKAVQRLEEQLMKLEVQATDREENKQIALG
 TSKLN YLDPRTVAWCKKWGVPIEKIYNKTQREKFAWAIDMADEDYEF

Purity ≥90%, as determined by SDS-PAGE

Usage FOR RESEARCH ONLY

Storage The protein sample can be stored under sterile conditions at 2- 8 centigrade for one month or at -70 centigrade for three months without detectable loss of activity. Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name TOP1 topoisomerase (DNA) I [Homo sapiens]

Official Symbol TOP1

Synonyms TOPI; DNA topoisomerase 1; type I DNA topoisomerase

Gene ID 7150

mRNA Refseq NM_003286

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Protein Refseq	NP_003277
MIM	126420
UniProt ID	P11387
Chromosome Location	20q12-q13.1
Pathway	Caspase cascade in apoptosis, organism-specific biosystem; Integrated Pancreatic Cancer Pathway, organism-specific biosystem

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