

Recombinant Human TOP2A protein, His & T7-tagged

Cat. No. TOP2A-7701H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human TOP2A aa. (Ile923~Arg1148 (Accession # P11388)) fused with N-terminal His & T7 tag was produced in E. coli cells.
Species	Human
Source	E.coli
ProteinLength	Ile923~Arg1148
Description	This gene encodes a DNA topoisomerase, an enzyme that controls and alters the topologic states of DNA during transcription. This nuclear enzyme is involved in processes such as chromosome condensation, chromatid separation, and the relief of torsional stress that occurs during DNA transcription and replication. It catalyzes the transient breaking and rejoining of two strands of duplex DNA which allows the strands to pass through one another, thus altering the topology of DNA. Two forms of this enzyme exist as likely products of a gene duplication event. The gene encoding this form, alpha, is localized to chromosome 17 and the beta gene is localized to chromosome 3. The gene encoding this enzyme functions as the target for several anticancer agents and a variety of mutations in this gene have been associated with the development of drug resistance. Reduced activity of this enzyme may also play a role in ataxia-telangiectasia.
Form	Freeze-dried powder
Molecular Mass	Predicted Molecular Mass: 30.3kDa

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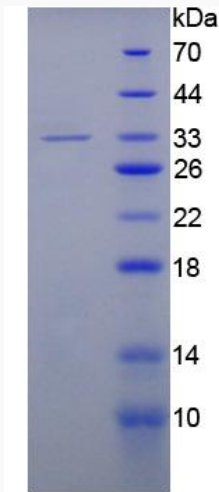
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Endotoxin	<1.0EU per 1g (determined by the LAL method)
Purity	>95%
Characteristic	The isoelectric point is 6.2.
Applications	SDS-PAGE; WB; ELISA; IP.
Stability	The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.
Storage buffer	Supplied as lyophilized form in 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% sarcosyl, 5% trehalose, and preservative.
Reconstitution	Reconstitute in sterile ddH2O.
GENE INFORMATION	
Gene Name	TOP2A topoisomerase (DNA) II alpha [Homo sapiens (human)]
Official Symbol	TOP2A
Synonyms	TOP2; TP2A; DNA gyrase; DNA topoisomerase (ATP-hydrolyzing); DNA topoisomerase II, 170 kD; DNA topoisomerase II, alpha isozyme; topoisomerase (DNA) II alpha 170kDa; DNA topoisomerase 2-alpha

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Gene ID	7153
mRNA Refseq	NM_001067.3
Protein Refseq	NP_001058.2
UniProt ID	P11388
SDS-PAGE	 15% SDS-PAGE