Recombinant Human TOP1 Protein (K175-A659), Tag Free

Cat. No. TOP1-1020H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human (G)-TOP1(K175-A659) Protein was expressed in Insect cell.
Species	Human
Source	Insect Cells
ProteinLength	K175-A659
Description	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 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-(3'-phosphotyrosyl)-enzyme intermediate and the expulsion of a 5'-OH DNA strand. The free DNA strand then rotates around the intact phosphodiester bond on the opposing strand, thus removing DNA supercoils. Finally, in the religation step, the DNA 5'-OH attacks the covalent intermediate to expel the active-site tyrosine and restore the DNA phosphodiester backbone. Regulates the alternative splicing of tissue factor (F3) pre-mRNA in endothelial cells. Involved in the circadian transcription of the core circadian clock component ARNTL/BMAL1 by altering the chromatin structure around the ROR response elements (ROREs) on the ARNTL/BMAL1 promoter.
Form	Liquid
Endotoxin	< 0.01 EU per

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	μg of the protein
Purity	90%
Stability	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.
Storage	Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Storage Buffer	Supplied as sterile 50 mM Tris-HCl (pH7.5), 200 mM NaCl, 20% glycerol
Shipping	It is shipped out with blue ice.

GENE INFORMATION

Gene Name	TOP1 topoisomerase (DNA) I [Homo sapiens (human)]
Official Symbol	TOP1
Synonyms	TOP1; topoisomerase (DNA) I; DNA topoisomerase 1; type I DNA topoisomerase; TOPI;
Gene ID	7150
mRNA Refseq	NM_003286
Protein Refseq	NP_003277
MIM	126420

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UniProt ID	P11387

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