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## Product Data Sheet

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Product Name: TOP1 Human  
Cat. No.: GP22308  
Batch No.: 1

### Product Data

Purity	>98%	Source	Sf9 insect cells.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	DNA topoisomerase 1; EC 5.99.1.2; DNA topoisomerase I; TOP1; Scl-70.		
Formulation	TOP1 is supplied in 16mM HEPES buffer pH-7.5, 400mM sodium chloride, and 20% glycerol.		

### Introduction

DNA topoisomerase I is a key nuclear enzyme that interconverts supercoiled DNA to the required topological conformations for normal DNA replication and transcription. This enzyme is the target antigen for the so-called Scl-70 autoantibodies. Scl-70 antibodies are a specific marker in Scleroderma patients (specificity 98-100%) and are associated with the presence of diffuse skin involvement and pulmonary fibrosis. In human tissues the DNA topoisomerase I is initially synthesized as a protein with 100 kDa molecular weight. Most of this precursor is then proteolytically processed to a species with 70 kDa molecular weight from which the Scl-70 antigen has derived its name.

### Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. Avoid multiple freeze-thaw cycles.

### Background

DNA Topoisomerase-I Human Recombinant produced in SF9 is a glycosylated, polypeptide chain having a molecular mass of 91,576 Dalton (excluding glycosylation) 102 kDa total mass. The TOP1 is expressed with a -6xHis tag and purified by proprietary chromatographic techniques.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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