

## Topoisomerase I from *E. coli*, Recombinant

Cat. No. NATE-1339

Lot. No. (See product label)

### Introduction

#### Description

Topoisomerase I relaxes supercoiled DNA molecules. The enzyme initiates transient breakages and rejoins of phosphodiester bonds in superhelical turns of closed-circular DNA. Enzyme activity is independent of right- and left-handed superhelices.

#### Synonyms

Topoisomerase I; EC 5.99.1.2; type I DNA topoisomerase; untwisting enzyme; relaxing enzyme; nicking-closing enzyme; swivelase;  $\omega$ -protein; deoxyribonuclease topoisomerase; topoisomerase; type I DNA topoisomerase; DNA topoisomerase; TOPO I

### Product Information

#### Species

*E. coli*

#### Source

*E. coli*

#### Form

50 mM KCl, 10 mM Tris-HCl (pH 7.5), 35 mM (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>, 0.1 mM EDTA, 1 mM DTT and 50% glycerol.

#### Concentration

5,000 units/ml

#### Unit Definition

One unit is defined as the amount of enzyme that catalyzes the relaxation of >95% of 0.5  $\mu$ g of pUC19 RF I (negatively supercoiled) DNA in 15 minutes at 37°C in a total reaction volume of 25  $\mu$ l. DNA supercoiling is assessed by agarose gel electrophoresis in the absence of ethidium bromide.

### Storage and Shipping Information

#### Storage

at -20°C