

# Wheat Germ Topoisomerase I



## Product Description (Product Numbers WGT101 and WGT102)

Topoisomerase I is prepared from wheat germ. The enzyme is supplied at a minimum concentration of 5 U/μl in Dilution Buffer. Store at -80°C.

It is recommended that the enzyme is aliquoted (undiluted) to avoid repeated freeze-thaw cycles.

**For *in vitro* laboratory research use only.**

### Dilution Buffer

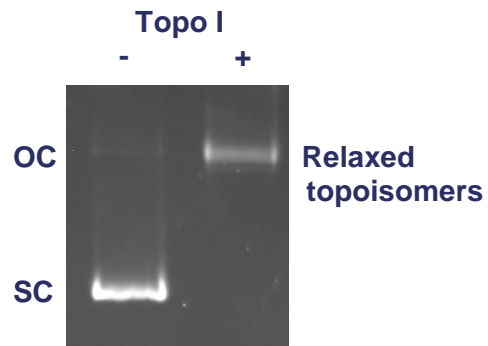
50 mM Tris.HCl (pH 7.9)  
500 mM NaCl  
1 mM DTT  
1 mM EDTA  
50 % (w/v) glycerol

### Assay Buffer (supplied as 2X stock)

50 mM Tris.HCl (pH 7.9)  
1 mM EDTA  
1 mM DTT  
20 % (v/v) glycerol  
50 mM NaCl

### Relaxation Assay

1 U topoisomerase I is incubated with 0.5 μg of supercoiled pBR322 in a reaction volume of 30 μl at 37 °C for 30 minutes in Assay Buffer. Gels are run in the absence of ethidium bromide or chloroquine.



### Quality Control

Endonuclease assay: 0.5 μg supercoiled pBR322 incubated with 0.5 U of wheatgerm topo I for 6 hours at 37 °C shows no detectable conversion of supercoiled DNA to either open circular or linear forms when assayed by agarose gel electrophoresis.

### Reference

Dynan, W.S., Jendrisak, J.J., Hager, D.L. and Burgess, R.R. (1981) Purification and Characterisation of Wheat Germ Topoisomerase I (Nicking-closing enzyme). *J. Biol. Chem.* 256 PP. 5860- 5865