

## *E. coli* Topoisomerase IV Assay and Dilution Buffers



### Product Description (Product Numbers TR001 and TD002)

For use with *E. coli* DNA Topoisomerase IV enzyme. Store at -20 °C.

For *in vitro* laboratory research use only.

#### Dilution Buffer

40 mM HEPES-KOH (pH 7.6)  
100 mM potassium glutamate  
1 mM DTT  
1 mM EDTA  
40 % (v/v) glycerol

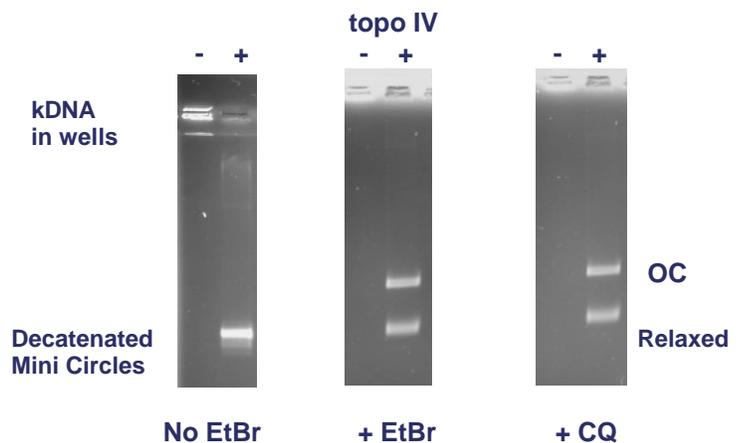
#### Assay Buffer (supplied as 5x stock)

50 mM HEPES-KOH (pH 7.6)  
100 mM potassium glutamate  
10 mM magnesium acetate  
10 mM DTT  
1 mM ATP  
50 µg/ml albumin

#### Decatenation Assay

1 U of topoisomerase IV will decatenate 200 ng of kDNA when incubated in 1X assay buffer in a total reaction volume of 30 µl at 37°C for 30 minutes.

Gels can be run in the presence or absence of Ethidium Bromide or Chloroquine which will resolve nicked OC DNA from relaxed.



#### Quality Control

Purity: The parC and parE subunits are purified to >95% purity as judged by SDS-polyacrylamide gel electrophoresis.

#### Reference

Peng, H. and Marians, K.J. (1999) Overexpression and purification of bacterial topoisomerase IV, in DNA Topoisomerase Protocols Vol. I ( Bjornsti, M-A., and Osheroff, N. eds.), Humana Press, Totowa, N.Jersey p.163-169