

E. coli Topo IV Assay Kit for Cell Extracts



Product Description (Product Numbers TCE001, TCE002, TCE003 and TCE004)

For use with *E. coli* topoisomerase IV enzyme and overexpressed cell extracts containing *E. coli* topoisomerase IV enzyme.

Contains 5X Assay Buffer, Dilution Buffer, kDNA and decatenated kDNA marker. 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

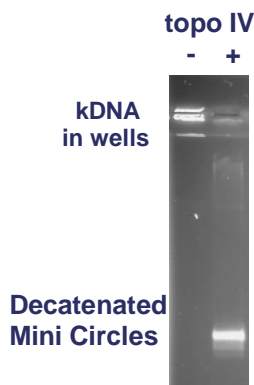
Assay Buffer (supplied as 5X stock)

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 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.



Relaxation Assay

1 U of topoisomerase IV will decatenate 0.2 µg of kDNA when incubated in Assay Buffer in a total reaction volume of 30 µl at 37 °C for 30 minutes.

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 pp.163-169