Human Topoisomerase II Assay Buffers

Product Description (Product Numbers HTA202 and HTD202)

For use with human topoisomerase II enzyme and overexpressed cell extracts containing human topoisomerase II
Store at -80 °C.
For *in vitro* laboratory research use only.

Dilution Buffer

50 mM Tris.HCl (pH 7.5)
100 mM NaCl
1 mM DTT
0.5 mM EDTA
50 % (v/v) glycerol
50 µg/ml albumin

Assay Buffer (supplied as 10X stock)

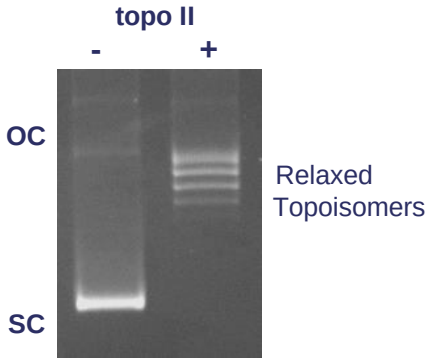
50 mM Tris.HCl (pH7.5)
125 mM NaCl
10 mM $MgCl_2$
5 mM DTT
100 µg/ml albumin

ATP (30X stock)

30 mM ATP

Relaxation Assay

A typical reaction will contain 3 µl of (10x) Assay Buffer, 1 µl of (30x) ATP, 0.5 µl of supercoiled pBR322 (1 µg/µl), plus human topoisomerase II, in a total volume of 30 µl.
1 U of human topoisomerase II will relax 0.5 µg of supercoiled pBR322 when incubated in 1X Assay Buffer plus 1 mM ATP in a total reaction volume of 30 µl at 37 °C for 30 minutes.
Gels should be run in the absence of ethidium bromide or chloroquine (CQ).



Decatenation Assay

A typical reaction will contain 3 µl of (10x) Assay Buffer, 1 µl of (30x) ATP, 2 µl of kDNA (100 ng/µl) plus human topoisomerase II, in a total volume of 30 µl.
1 U of human topoisomerase II will decatenate 200 ng of kDNA when incubated in 1X Assay Buffer plus 1 mM ATP 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 (CQ).