Mycobacterium tuberculosis DNA Gyrase

Product Description (MTG001 and MTG002)

M. tuberculosis DNA gyrase is a C-terminal HIS-tagged protein purified after heterologous expression in *E. coli* and is supplied as an A_2B_2 complex. 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 to avoid repeated freeze-thaw cycles.

For *in vitro* laboratory research use only.

Dilution Buffer (1X)

50 mM Tris.HCl (pH 7.9)
5 mM DTT
30 % (w/v) glycerol

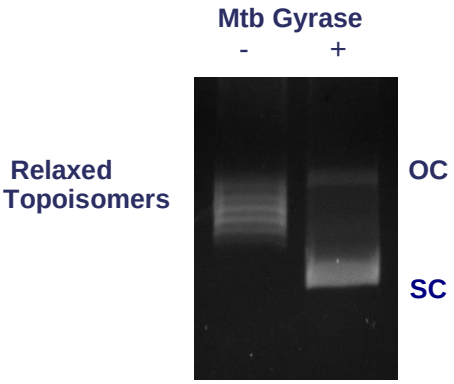
Assay Buffer (supplied as 5X stock)

50 mM HEPES. KOH (pH 7.9)
6 mM magnesium acetate
4 mM DTT
1 mM ATP
100 mM potassium glutamate
2 mM spermidine
0.05 mg/ml albumin

Supercoiling Assay

1 U of DNA gyrase is incubated with 0.5 µg of relaxed 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

1) Purity: *M. tuberculosis* DNA gyrase is purified to > 95 % purity as judged by SDS-polyacrylamide gel electrophoresis. 2) pBR322 was also incubated for 4 hrs in assay buffer + 10 mM $MgCl_2$ at 37 °C. These tests were negative for the formation of linear products, indicating the absence of nuclease contamination. 3) No activity was detectable when the single subunits were assayed alone