

Escherichia coli Gyrase A Subunit



Product Description (Product Numbers #SUBA001, SUBA005 and SUBA100)

DNA gyrase A subunit is prepared from the over producing strain JMtacA (Hallett, *et al.*, 1990). The enzyme is supplied at a concentration of 1.0 mg/ml in Dilution Buffer.

Supercoiling activity is 100 U/ μ l. Store at -80°C .

For *in vitro* laboratory research use only.

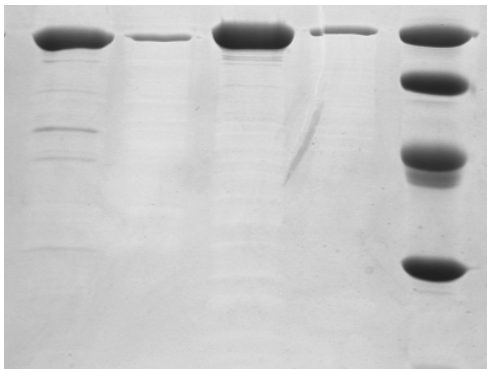
Dilution Buffer

50 mM Tris.HCl (pH 7.5)
 100 mM KCl
 2 mM DTT
 1 mM EDTA
 50 % (w/v) glycerol

Assay Buffer (supplied as 5X stock)

35 mM Tris.HCl (pH 7.5)
 24 mM KCl
 4 mM MgCl_2
 2 mM DTT
 1.8 mM spermidine
 1 mM ATP
 6.5 % (w/v) glycerol
 0.1 mg/ml albumin

Gyr B Gyr A MW



Endonuclease assay: 0.5 μ g relaxed pBR322 incubated with 0.5 U of DNA gyrase for 1 hour at 37°C in the presence of 1 mM ATP shows no detectable conversion of superhelical DNA to either open circular or linear forms when assayed by agarose gel electrophoresis.

Supercoiling Assay

1 U of DNA gyrase is incubated with 0.5 μ g of relaxed pBR322 in a reaction volume of 30 μ l at 37°C for 30 minutes in Assay Buffer. Gels are run in the absence of Ethidium Bromide or Chloroquine.

Gyrase

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Reference

Hallett, P., Grimshaw, A.J., Wigley, D.B. and Maxwell, A. (1990) Cloning of the DNA gyrase genes under *tac* promoter control: overproduction of the gyrase A and B proteins. *Gene* 93: 139-142