

## *S. aureus* DNA Gyrase



### Product Description (Product numbers SAG4001 and SAG4002)

*S. aureus* DNA gyrase is purified after heterologous expression in *E. coli* and is supplied as an A<sub>2</sub>B<sub>2</sub> 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 7.5)  
1 mM DTT  
1 mM EDTA  
40 % (w/v) glycerol

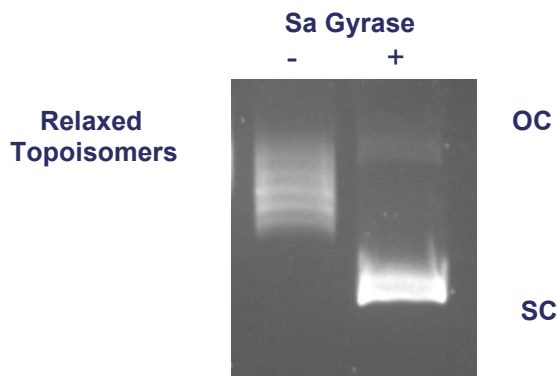
#### Assay Buffer (supplied as 5X stock)

40 mM HEPES. KOH (pH 7.6)  
10 mM magnesium acetate  
10 mM DTT  
2 mM ATP  
500 mM potassium glutamate  
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: *S. aureus* 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<sub>2</sub> 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