

# *S. pneumoniae* GYRASE



## Product Description (Product Numbers # SPG1001 and SPG5002)

*S. pneumoniae* gyrase is supplied as an A<sub>2</sub>B<sub>2</sub> complex. The enzyme is supplied at a minimum concentration of 2-5 U/μl in Dilution Buffer with assay and 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

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

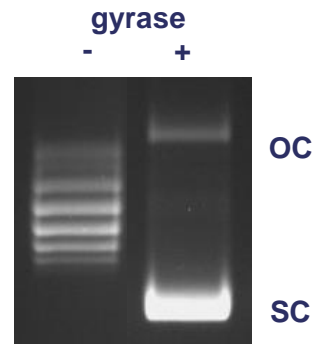
### Assay Buffer (supplied as 5x stock)

35 mM Tris.HCl (pH 7.5)  
24 mM KCl  
4 mM MgCl<sub>2</sub>  
2 mM dithiothreitol  
1.8 mM spermidine  
1 mM ATP  
6.5 % (w/v) glycerol  
0.1 mg/ml albumin

### Supercoiling Assay

1 U of *S. pneumoniae* 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.

Relaxed  
topoisomers



### Quality Control

- 1) Purity *S.pneumoniae* gyrase is purified to > 95 % purity as judged by SDS-polyacrylamide gel electrophoresis.
- 2) No activity was detectable when the single subunits were assayed alone