

# BlpI



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R0585S 008120714071

## R0585S



500 units 10,000 U/ml Lot: 0081207

RECOMBINANT Store at -20°C Exp: 7/14

### Recognition Site:

5'... GCTNAGC...3'  
3'... CGANTCG...5'

**Source:** An *E. coli* strain that carries the cloned BlpI gene from *Bacillus lentus* (C. Polisson)

Supplied in: 50 mM NaCl, 10 mM Tris-HCl (pH 7.4), 0.1 mM EDTA, 1 mM DTT, 200 µg/ml BSA and 50% glycerol.

**Reaction Conditions:** 1X NEBuffer 4.  
Incubate at 37°C.

**Reagents Supplied with Enzyme:**  
10X NEBuffer 4.

**1X NEBuffer 4:**  
50 mM potassium acetate  
20 mM Tris-acetate  
10 mM magnesium acetate  
1 mM DTT  
pH 7.9 @ 25°C

**Unit Definition:** One unit is defined as the amount of enzyme required to digest 1 µg of λ DNA in 1 hour at 37°C in a total reaction volume of 50 µl.

**Diluent Compatibility:** Diluent Buffer A  
50 mM KCl, 10 mM Tris-HCl, 0.1 mM EDTA,  
1 mM DTT, 200 µg/ml BSA and 50% glycerol  
(pH 7.4 @ 25°C)

### Quality Control Assays

**Ligation:** After 10-fold overdigestion with BlpI, > 95% of the DNA fragments can be ligated with T4 DNA Ligase (at a 5' termini concentration of 1–2 µM) at 16°C. Of these ligated fragments, approximately 75% can be recut.

**16-Hour Incubation:** A 50 µl reaction containing 1 µg of DNA and 25 units of enzyme incubated for 16 hours resulted in the same pattern of DNA bands as a reaction incubated for 1 hour with 1 unit of enzyme.

**Exonuclease Activity:** Incubation of 100 units of enzyme with 1 µg sonicated <sup>3</sup>H DNA (10<sup>5</sup> cpm/µg) for 4 hours at 37°C in 50 µl reaction buffer released < 0.1% radioactivity.

**Endonuclease Activity:** Incubation of 100 units of enzyme with 1 µg φX174 RF I DNA for 4 hours at 37°C in 50 µl reaction buffer resulted in < 5% conversion to RF II.

### Enzyme Properties

**Activity in NEBuffers:**  
NEBuffer 1 50%  
NEBuffer 2 100%  
NEBuffer 3 10%  
NEBuffer 4 100%

When using a buffer other than the optimal (supplied) NEBuffer, it may be necessary to add more enzyme to achieve complete digestion.

**Survival in a Reaction:** Intermediate activity. Suitable for extended digestion, but < 8 hours.

**Heat Inactivation:** No

**Notes:** BlpI is an isoschizomer of Bpu1102I and EspI.

Not sensitive to *dam*, *dcm* or mammalian CpG methylation.

= Time-Saver™ Qualified (See www.neb.com for details).

CERTIFICATE OF ANALYSIS

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