BsrI



1-800-632-7799 info@neb.com www.neb.com





1,000 units Lot: 0111205 Exp: 5/14 5,000 U/ml Store at -20°C

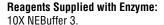
Recognition Site:

5′... A C T G G N ₹... 3′ 3′... T G A C C N ... 5′

Source: Bacillus stearothermophilus (C. Polisson)

Supplied in: 400 mM NaCl, 10 mM Tris-HCl (pH 7.4), 0.1 mM EDTA, 1 mM dithiothreitol, 200 µg/ml BSA and 50% glycerol.

2X More Units



Reaction Conditions: 1X NEBuffer 3. Incubate at 65°C.

1X NEBuffer 3: 100 mM NaCl 50 mM Tris-HCl 10 mM MgCl₂ 1 mM dithiothreitol pH 7.9 @ 25°C

Unit Definition: One unit is defined as the amount of enzyme required to digest 1 μg of $\phi X174$ RF I DNA in 1 hour at 65°C in a total reaction volume of 50 μ l.

Diluent Compatibility: Diluent Buffer B 300 mM NaCl, 10 mM Tris-HCl, 0.1 mM EDTA, 1 mM dithiothreitol, 500 µg/ml BSA and 50% glycerol (pH 7.4 @ 25°C).

Quality Control Assays

Ligation: After 10-fold overdigestion with Bsrl, > 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, > 95% can be recut.

16-Hour Incubation: A 50 μ I reaction containing 1 μ g of ϕ X174 RF I DNA and 50 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 μ g sonicated ³H DNA (10⁵ cpm/ μ g) for 4 hours at 65°C in 50 μ l reaction buffer released < 0.2% radioactivity.

Enzyme Properties

Activity in NEBuffers:

NEBuffer 1 0% NEBuffer 2 50% NEBuffer 3 **100%** NEBuffer 4 10%

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: A minimum of 0.25 unit is required to digest 1 μg of substrate DNA in 16 hours.

Heat Inactivation: 80°C for 20 minutes.

Note: Incubation at 37°C results in 20% activity.

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

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

CERTIFICATE OF ANALYSIS

BsrI



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R0527S



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2X More Units

Reagents Supplied with Enzyme: 10X NEBuffer 3.

Reaction Conditions: 1X NEBuffer 3. Incubate at 65°C.

1X NEBuffer 3: 100 mM NaCl 50 mM Tris-HCl 10 mM MgCl₂ 1 mM dithiothreitol pH 7.9 @ 25°C

Unit Definition: One unit is defined as the amount of enzyme required to digest 1 μg of $\phi X174$ RF I DNA in 1 hour at 65°C in a total reaction volume of 50 μ l.

Diluent Compatibility: Diluent Buffer B 300 mM NaCl, 10 mM Tris-HCl, 0.1 mM EDTA, 1 mM dithiothreitol, 500 µg/ml BSA and 50% glycerol (pH 7.4 @ 25°C).

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