Bsu36I



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R0524S 01512101410

NEB 3 BSA 37° Yes

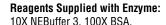
$\label{lem:Recognition Site:} \textbf{Recognition Site:}$

5'... C C T N A G G ... 3' 3'... G G A N T C C ... 5'

Source: An *E. coli* strain that carries the cloned Bsu36l gene from *Bacillus subtilis* 36 (B. Zhou)

Supplied in: 50 mM KCl, 10 mM Tris-HCl (pH 7.5), 0.1 mM EDTA, 1 mM dithiothreitol, 200 μ g/ml BSA and 50% glycerol.

More Units. Now Recombinant



Reaction Conditions: 1X NEBuffer 3, supplemented with 100 μ g/ml BSA. Incubate at 37°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 λ DNA (HindllI digest) 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 dithiothreitol, 200 μg/ml BSA and 50% glycerol (pH 7.4 @ 25°C).

Quality Control Assays

Ligation: After 2-fold overdigestion with Bsu361, approximately 50% of the DNA fragments can be ligated with T4 DNA Ligase (at a 5´ termini concentration of 1–2 μ M) at 16°C. Of these ligated fragments, > 95% can be recut.

16-Hour Incubation: A 50 µl reaction containing 1 µg of DNA and 100 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 37°C in 50 μ l reaction buffer released < 0.05% radioactivity.

Endonuclease Activity: Incubation of 50 units of enzyme with 1 μ g ϕ X174 RF I DNA for 4 hours at 37°C in 50 μ l reaction buffer resulted in < 10% conversion to RF II.

Enzyme Properties

Activity in NEBuffers:

NEBuffer 1 0% NEBuffer 2 25% NEBuffer 3 **100%** NEBuffer 4 0%

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 0.13 unit is required to digest 1 μg of substrate DNA in 16 hours.

Heat Inactivation: 80°C for 20 minutes.

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

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

CERTIFICATE OF ANALYSIS

Bsu36I



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R0524S 015121014101

NEB 3 BSA 37° Y66

Recognition Site:

5'...CC*TNAGG...3' 3'...GGANT_CC...5'

Source: An *E. coli* strain that carries the cloned Bsu36l gene from *Bacillus subtilis* 36 (B. Zhou)

Supplied in: 50 mM KCl, 10 mM Tris-HCl (pH 7.5), 0.1 mM EDTA, 1 mM dithiothreitol, 200 μ g/ ml BSA and 50% glycerol.

Reagents Supplied with Enzyme:

10X NEBuffer 3, 100X BSA.

Reaction Conditions: 1X NEBuffer 3, supplemented with 100 μg/ml BSA. Incubate at 37°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 λ DNA (Hindlll digest) in 1 hour at 37°C in a total reaction volume of 50 μ l.

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

Quality Control Assays

Ligation: After 2-fold overdigestion with Bsu36l, approximately 50% of the DNA fragments can be ligated with T4 DNA Ligase (at a 5´ termini concentration of 1–2 μ M) at 16°C. Of these ligated fragments, > 95% can be recut.

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