BsrBI





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

R0102S



1,000 units 10,000 U/ml Lot: 0061208 Exp: 8/14

Store at -20°C

Recognition Site:

5'...G G G G T G...3'3'...G G G G A G...5'

Source: *Bacillus stearothermophilus* CPW193 (Z. Chen)

Supplied in: 100 mM NaCl, 10 mM Tris-HCl (pH 7.4), 0.1 mM EDTA, 1 mM DTT, 200 μ g/ml BSA and 50% glycerol.

New Reaction Buffer

Reagents Supplied with Enzyme: 10X NEBuffer 4.

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

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 BsrBI, approximately 75% 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, approximately 50% can be recut.

16-Hour Incubation: A 50 μ l reaction containing 1 μ g of DNA and 60 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 80 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 < 0.1% radioactivity.

Enzyme Properties

Activity in NEBuffers:

NEBuffer 1 50% NEBuffer 2 100% NEBuffer 3 100% 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: A minimum of 0.5 unit is required to digest 1 μg of substrate DNA in 16 hours

Heat Inactivation: 80°C for 20 minutes.

Notes: When DNA is cut with BsrBI and then ligated, only 50% of these ligated sites regenerate BsrBI sites because its recognition sequence is non-palindromic. Ligated sites not recleavable by BsrBI are recleavable by either SacI or SacII. BsrBI is fully active at 50°C.

Cleavage of mammalian genomic DNA is blocked by some combinations of overlapping CpG methylation.

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

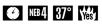
CERTIFICATE OF ANALYSIS

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