



6143 North 60th Street  
Milwaukee, WI 53218  
www.chimerx.com

## Certificate of Analysis

Telephone: (414) 535-9506  
Toll Free: (800) 626-7833  
Fax: (414) 535-9508  
Web Support: [chimerx.com/support](http://chimerx.com/support)  
Email: [info@chimerx.com](mailto:info@chimerx.com)

## BstX I

Catalog No: 2118

Lot No: 2308003

Package Size: See Product Label

Concentration: 10 units/ $\mu$ l

Source: *Bacillus stearothermophilus* X I

Storage Conditions: Store at -20°C

### Recognition/Cut Site

5'-CCANNNNN↓NTGG-3'

3'-GGTN↑NNNNNACC-5'

### Unit Definition

One unit is the amount of enzyme required to completely digest 1  $\mu$ g of lambda DNA in 1 hour at 55°C.

### Heat Inactivation

65°C for 10 minutes

### Reaction Temperature

55°C

### Reaction Buffer

50 mM Tris-HCl (pH 7.5 at 37°C)

100 mM NaCl

10 mM MgCl<sub>2</sub>

1 mM dithiothreitol (DTT)

100  $\mu$ g/ml bovine serum albumin\*

\*supplied separately

### Assay Conditions

50 mM Tris-HCl (pH 7.5 at 37°C)

100 mM NaCl

10 mM MgCl<sub>2</sub>

1 mM dithiothreitol (DTT)

100  $\mu$ g/ml bovine serum albumin

1  $\mu$ g lambda DNA

Incubation time is 1 hour at 55°C

Reaction volume of 50  $\mu$ l

### Storage Buffer

10 mM Tris-HCl (pH 7.5)

50 mM KCl

0.1 mM EDTA

1 mM dithiothreitol

0.005% Triton X-100™

200  $\mu$ g/ml bovine serum albumin

50% (v/v) glycerol

### Quality Control

**Non-Specific Endonuclease:** 10, 20, and 30 units of BstX I were incubated with Lambda DNA for 5 hours at 55°C and compared to a standard 4 unit, 1 hour assay.

**3'-Exonuclease:** 2, 5, 10, 15, and 20 units of BstX I were incubated with [<sup>3</sup>H] labeled 3'-ends of Lambda/Taq I DNA fragments for 1 hour at 55°C.

**5'-Exonuclease/5'-Phosphatase:** 2, 5, 10, 15, and 20 units of BstX I were incubated with [ $\gamma$  - <sup>32</sup>P] labeled 5' - ends of Lambda/Hae III DNA fragments for 1 hour at 55°C.

**Nicking:** 10, 20, and 30 units of BstX I were incubated with pBR322 DNA for 5 hours at 55°C.

**Ligation/Recut:** 2 units of BstX I per  $\mu$ g of Lambda DNA were incubated for 1 hour at 55°C. Resulting fragments were ligated with T4 DNA Ligase and recut with BstX I.

For more information or to re-order, please visit [www.chimerx.com](http://www.chimerx.com)