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## Certificate of Analysis

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## EcoR I

Catalog No: 2150

Lot No: 2404008

Package Size: See Product Label

Concentration: 10 units/ $\mu$ l

Source: *Escherichia coli* RY 13

Storage Conditions: Store at -20°C

### Recognition/Cut Site

5'-G↓AATTC-3'

3'-CTTAA↑G-5'

### Unit Definition

One unit is the amount of enzyme required to completely digest 1  $\mu$ g of lambda DNA in 1 hour at 37°C.

### Heat Inactivation

10 minutes at 65°C

### Reaction Temperature

37°C

### Reaction Conditions

50 mM Tris-HCl (pH 7.5 at 37°C)

10 mM MgCl<sub>2</sub>

100 mM NaCl

1 mM dithiothreitol (DTT)

0.025% Triton X-100™

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

\*supplied separately

### Assay Conditions

50 mM Tris-HCl (pH 7.5 at 37°C)

10 mM MgCl<sub>2</sub>

100 mM NaCl

1 mM dithiothreitol (DTT)

0.025% Triton X-100™

100  $\mu$ g/ml bovine serum albumin

1  $\mu$ g Lambda DNA

Incubation time is 1 hour at 37°C

Reaction volume is 50  $\mu$ l

### Storage Buffer

50 mM Tris-HCl (pH 7.2)

0.5 mM EDTA

5 mM EGTA

300 mM NaCl

5 mM  $\beta$ -mercaptoethanol

0.2% Triton X-100™

5  $\mu$ g/ml Poly-L-lysine

500  $\mu$ g/ml bovine serum albumin

50% (v/v) glycerol

### Quality Control

**Non-specific Endonuclease:** 30, 60, and 90 units of EcoR I were incubated with Lambda DNA for 5 hours and compared to a standard 4 unit, 1 hour assay.

**3'-Exonuclease:** 2, 5, 15, 45, and 60 units of EcoR I were incubated with [<sup>3</sup>H] labeled 3'-ends of Lambda/Hae III fragments for 1 hour at 37°C.

**5'-Exonuclease/5'-Phosphatase:** 2, 5, 15, 45, and 60 units of EcoR I were incubated with [ $\gamma$ -<sup>32</sup>P] labeled 5'-ends of Lambda/Hae III DNA fragments for 1 hour at 37°C.

**Nicking:** 30, 60, and 90 units of EcoR I were incubated with  $\Phi$ X-174 DNA for 5 hours at 37°C.

**Ligation/Recut:** 6 units of EcoR I per  $\mu$ g of Lambda DNA were incubated for 1 hour at 37°C. Resulting fragments were ligated with T4 DNA Ligase and recut with EcoR I.

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