



6143 North 60th Street  
Milwaukee, WI 53218  
[www.chimerx.com](http://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)

## Dra I

**Catalog No:** 2145

**Lot No:** 2709013

**Package Size:** See Product Label

**Concentration:** 10 units/ $\mu$ l

**Source:** *Deinococcus radiophilus*

**Storage Conditions:** Store at -20°C

### Recognition/Cut Site

5'-TTT↓AAA-3'

3'-AAA↑TTT-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 Buffer

20 mM Tris-OAc (pH 7.5)

50 mM KOAc

10 mM MgOAc

1 mM dithiothreitol (DTT)

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

\*supplied separately

### Storage Buffer

50 mM Tris-HCl (pH 7.4)

50 mM NaCl

0.1 mM EDTA

1 mM dithiothreitol (DTT)

0.5 mg/ml bovine serum albumin

0.1 mM PMSF

50% (v/v) glycerol

### Assay Conditions

20 mM Tris-OAc (pH 7.5)

50 mM KOAc

10 mM MgOAc

1 mM dithiothreitol (DTT)

100  $\mu$ g/ml bovine serum albumin

1  $\mu$ g of Lambda DNA

Incubation is at 37°C for 1 hour

Reaction volume is 50  $\mu$ l

### Quality Control

**Non-specific Endonuclease:** 20, 35, and 50 units of Dra I were incubated with Lambda DNA for 5 hrs at 37°C and compared to a standard 4 unit, 1 hour assay. A second assay was performed under the same conditions using pBR322 as the DNA.

**3'-Exonuclease:** 5, 10, 20, and 30 units of Dra I were incubated with [<sup>3</sup>H] labeled 3'-ends of Lambda/Taq I DNA fragments for 1 hour at 37°C.

### 5'-Exonuclease/5'-Phosphatase:

5, 10, 20, and 30 units of Dra I were incubated with [ $\gamma$  - <sup>32</sup>P] labeled 5' - ends of Lambda/Hae III DNA fragments for 1 hour at 37°C.

**Ligation/Recut:** 4 units of Dra 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 Dra I.

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