



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
Email: info@chimerx.com

Hinf I

Catalog No: 2240

Lot No: See Product Label

Package Size: See Product Label

Concentration: See Product Label

Source: Haemophilus influenzae Rf

Storage Conditions: Store at -20°C

Recognition/Cut Site

5'-G↓ANTC-3'

3'-CTNA↑G-5'

Unit Definition

One unit is the amount of enzyme required to completely digest 1 µg of Lambda DNA in 1 hour at 37°C in a total reaction volume of 50 µl.

Reaction Temperature

37°C

Heat Inactivation

10 minutes at 80°C

Assay Conditions

50 mM Tris-HCl (pH 8.0)

10 mM MgCl₂

50 mM NaCl

1 µg of Lambda DNA

Reaction volume of 50 µl

Storage Buffer

50 mM Tris-HCl (pH 7.5)

0.1 mM EDTA

10 mM β-mercaptoethanol

500 µg/ml Bovine serum albumin

50% (v/v) glycerol

Quality Control

Endonuclease: Incubation of 20, 35, and 50 units of Hinf I with 1 µg of Lambda DNA at 37°C for 5 hours (a 250-fold over-digestion) resulted in the same sharp characteristic banding pattern as 4 U/µg in the standard 1 hour assay reaction, as determined by agarose gel electrophoresis. A second incubation using SV40 DNA as the DNA substrate resulted in the same sharp characteristic banding pattern as 4 U/µg in the standard 1 hour assay reaction, as determined by agarose gel electrophoresis.

3'-Exonuclease: Incubation of 5, 10, 15, 20, and 30 units of Hinf I with 5 pmol of Lambda/Taq I fragments (3'-labeled with Klenow exo⁻ and [³H]dCTP), incubated for 1 hour at 37°C resulted in a ≤ 0.2 slope of %-end label released per unit of enzyme. Reaction volume of 50 µl.

5'-Exonuclease/5'-Phosphatase:

Incubation of 5, 10, 15, 20, and 30 units of Hinf I with 0.25 µg of [⁵-³²P]Lambda/Hae III fragments for 1 hour at 37°C resulted in a ≤ 0.2 slope of %-end label released per unit of enzyme. Reaction volume of 50 µl.

Ligation/Recut: Incubation of 4 units of Hinf I with 1 µg of Lambda DNA at 37°C produces fragments that ligate with > 95% efficiency. The recut efficiency of these ligated fragments is 100%.