



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

BsiHKC I

Catalog No: 2109

Lot No: 2206007

Package Size: See Product Label

Concentration: 10 units/ μ l

Source: *Bacillus stearothermophilus* HKC

Storage Conditions: Store at -20°C

Recognition/Cut Site

5'-C↓PyCGPuG-3'

3'-GPuGCPy↑C-5'

Unit Definition

One unit is the amount of enzyme required to completely digest 1 μ g of Lambda DNA in 1 hour at 65°C.

Heat Inactivation

No

Reaction Temperature

55°C

Reaction Buffer

50 mM Tris-HCl (pH 7.5 at 37°C)

100 mM NaCl

10 mM MgCl₂

1 mM dithiothreitol (DTT)

100 μ g/ml bovine serum albumin*

*supplied separately

Assay Conditions

50 mM Tris-HCl (pH 7.5 at 37°C)

100 mM NaCl

10 mM MgCl₂

1 mM dithiothreitol (DTT)

100 μ g/ml bovine serum albumin

1 μ g Lambda DNA

Incubation time is 1 hour at 55°C

Reaction volume is 50 μ l

Storage Buffer

10 mM Tris-HCl (pH 7.5)

50 mM KCl

0.1 mM EDTA

1 mM dithiothreitol (DTT)

0.5 mg/ml bovine serum albumin

50% (v/v) glycerol

Quality Control

Non-Specific Endonuclease: Incubation of 20, 35, and 50 units of BsiHKC I with 1 μ g of Lambda DNA at 65°C for 5 hours (175-fold over-digestion) resulted in the same sharp characteristic banding pattern as 4 units/ μ g in the standard 1 hour assay reaction, as determined by agarose gel electrophoresis.

3'-Exonuclease: Incubation of 5, 10, and 20 units of BsiHKC I with 5 moles of Lambda/Taq I fragments (3'-labeled with Klenow exo⁻ and with [³H] dCTP), incubated for 1 hour at 65°C resulted in a \leq 0.3 slope of %-end label released per unit of enzyme.

5'-Exonuclease/5'-Phosphatase: Incubation of 5, 10, and 20 units of BsiHKC I with 0.25 μ g of [5'-³²P] Lambda/Hae III fragments for 1 hour at 65°C resulted in a \leq 0.3 slope of %-end label released per unit of enzyme.

Nicking: Incubation of 20, 35, and 50 units of BsiHKC I with 1 μ g of SV40 DNA at 65°C for 5 hours (175-fold over-digestion) resulted in \leq 20% conversion of RF I to RF II and \leq 10% RF III.

Ligation/Recut: Incubation of 4 units of BsiHKC I with 1 μ g of Lambda DNA at 65°C produces fragments that ligate with \geq 95% efficiency. The recut efficiency of these ligated fragments is 100%.

For more information or to re-order, please visit www.chimerx.com