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Certificate of Analysis

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Cla I

Catalog No: 2110

Lot No: 2102024

Package Size: See Product Label

Concentration: 10 units/ μ l

Source: *Caryophanon latum* L

Storage Conditions: Store at -20°C

Recognition/Cut Site

5'-AT↓CGAT-3'

3'-TAGC↑TA-5'

Unit Definition

One unit is the amount of enzyme required to completely digest 1 μ g of unmethylated Lambda DNA in 1 hour at 37°C.

Heat Inactivation

65°C for 10 minutes

Reaction Temperature

37°C

Reaction Buffer

20 mM Tris-Acetate (pH 7.5 at 37°C)

50 mM potassium acetate

10 mM magnesium acetate

1 mM dithiothreitol (DTT)

100 μ g/ml bovine serum albumin*

*supplied separately

Assay Conditions

50 mM potassium acetate

10 mM magnesium acetate

1 mM dithiothreitol (DTT)

100 μ g/ml bovine serum albumin

1 μ g Lambda DNA

Incubation time is 1 hour at 37°C

Reaction volume is 50 μ l

Storage Buffer

50 mM Tris-HCl (pH 7.4)

200 mM KCl

0.1 mM EDTA

5 mM β -mercaptoethanol

0.1% Triton X-100™

0.5 mg/ml bovine serum albumin

50% (v/v) glycerol

Quality Control

Non-Specific Endonuclease: 10, 20, and 30 units of Cla I were incubated with Lambda DNA for 5 hours at 37°C and compared to a standard 4 unit, 1 hour assay.

3'-Exonuclease: 2, 5, 10, 15, and 20 units of Cla I were incubated with [³H] labeled 3'-ends of Lambda/Taq I DNA fragments for 1 hour at 37°C.

5'-Exonuclease/5'-Phosphatase: 2, 5, 10, 15, and 20 units of Cla I were incubated with [γ - ³²P] labeled 5' - ends of Lambda/Hae III DNA fragments for 1 hour at 37°C.

Nicking: 10, 20, and 30 units of Cla I were incubated with Φ X-174 DNA for 5 hours at 37°C.

Ligation/Recut: 2 units of Cla I per μ g of Lambda DNA were incubated for 1 hour at 37°C. Resulting fragments were ligated with T4 DNA 20 mM Tris-Acetate (pH 7.5 at 37°C). Ligase and recut with Cla I.