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Certificate of Analysis

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Dpn I

Catalog No: 2142

Lot No: 2407019

Package Size: See Product Label

Concentration: 10 units/ μ l

Source: *Diplococcus pneumoniae*

Storage Conditions: Store at -20°C

Recognition/Cut Site

5'-GA↓TC-3'

3'-CT↑AG-5'

Unit Definition

One unit is the amount of enzyme required to completely digest 1 μ g of pBR322 dam methylated DNA in 1 hour at 37°C.

Heat Inactivation

80°C for 10 minutes

Reaction Temperature

37°C

Reaction Buffer

20 mM Tris-OAc (pH 7.5 at 37°C)

50 mM KOAc

10 mM MgOAc

1 mM dithiothreitol (DTT)

Storage Buffer

10 mM Tris-HCl (pH 7.4)

400 mM NaCl

0.1 mM EDTA

1 mM dithiothreitol (DTT)

0.1% Triton X-100™

200 μ g/ml bovine serum albumin

50% (v/v) glycerol

Assay Conditions

20 mM Tris-OAc (pH 7.5 at 37°C)

10 mM MgOAc

50 mM KOAc

1 mM dithiothreitol (DTT)

1 μ g pBR322 DNA

Incubation time is 1 hour at 37°C

Reaction volume is 50 μ l

Quality Control

Non-Specific Endonuclease: 10, 20, and 30 units of Dpn I were incubated with pBR322 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 Dpn 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 Dpn 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 Dpn I were incubated with Φ X-174 DNA for 5 hours at 37°C.

Ligation/Recut: 2 units of Dpn I per μ g of pBR322 DNA were incubated for 1 hour at 37°C. Resulting fragments were ligated with T4 DNA Ligase and recut with Dpn I.

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