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Certificate of Analysis

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Pvu I

Catalog No: 2320

Lot No: See Product Label
Package Size: See Product Label
Concentration: See Product Label
Source: *Proteus vulgaris*
Storage Conditions: Store at -20°C

Recognition/Cut Site

5'-CGAT↓CG-3'
3'-GC↑TAGC-5'

Unit Definition

One unit is the amount of enzyme required to completely digest 1 µg of Ad-2 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 7.5 at 37 °C)
10 mM MgCl₂
100 mM NaCl
1 µg of Ad-2 DNA
1mM dithiothreitol
100ug/ml bobine serum albumin
Reaction volume 50 µl

Storage Buffer

50 mM Tris-HCl (pH 7.5)
200 mM KCl
0.1 mM EDTA
10mM β-mercaptoethanol
0.02% (w/v) Triton X-100
150 µg/ml Bovine Serum Albumin

50% (v/v) Glycerol

Quality Control

Non-specific Endonuclease: Incubation of 20, 35, and 50 units of Pvu I with 1 µg of Ad-2 DNA at 37°C for 5 hours (a 175-fold over-digestion) resulted in the same sharp characteristic banding pattern as 4 units of Pvu I with 1 µg of Ad-2 DNA at 37°C for 1 hour. Results determined by agarose gel electrophoresis. Reaction volume of 50 µl.

Nicking: Incubation of 20, 35, and 50 units of Pvu I with 1 µg SV40 DNA at 37°C for 5 hours (a 100-fold over-digestion) resulted in ≤40% conversion of RF I to Form II and ≤5% conversion to Form III, as determined by agarose gel electrophoresis. Reaction volume of 50 µl.

3'-Exonuclease: Incubation of 5, 10, 15, 20, and 30 units of Pvu I and 5 pmoles of 3'-ends of lambda/Taq I fragments (3'-labelled with Klenow and [³H]dCTP), incubated for 1 hour at 37°C resulted in ≤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 Pvu I with 0.25 µg 5'-ends of [5'-³²P]lambda/Hae III fragments for 1 hour at 37°C resulted in ≤0.2 slope of %-end label released per unit of enzyme. Reaction volume of 50 µl.

Ligation/Recut: Incubation of 4 units of Pvu I with 1 µg of Ad-2 DNA at 37°C produces fragments that ligate with ≥65% efficiency. The recut efficiency of these ligated fragments is 100%.

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