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Certificate of Analysis

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Nar I

Catalog No: 2291

Lot No: See Product Label

Package Size: See Product Label

Concentration: See Product Label

Source: *Nocardia argentinensis*

Storage Conditions: Store at -20°C

Recognition/Cut Site

5'GG↓CGCC-3'
3'-CCGC↑GG-5'

Unit Definition

One unit is the amount of enzyme required to completely digest 1 µg of Ad-2 DNA in 1 hour in a total reaction volume of 50 µl.

Reaction Temperature

37°C

Heat Inactivation

10 minutes at 65°C

Assay Conditions

50 mM Tris-HCl (pH 8.0)

10 mM MgCl₂

1 µg Ad-2 DNA

Incubation is at 37°C for 1 hour in a reaction volume of 50 µl

Storage Buffer

10 mM Tris-HCl (pH 7.8)

0.1 mM EDTA

50 mM KCl

1 mM dithiothreitol

500 µg/ml bovine serum albumin

0.01% Triton X-100

50% (v/v) Glycerol

Quality Control

Non-specific Endonuclease: Incubation of 20, 35, and 50 units of Nar I with 1 µg of Ad-2 DNA at 37°C for 5 hours (a 250-fold over-digestion) resulted in the same sharp characteristic banding pattern as 4 units of Nar 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 Nar I with 1 µg of SV 40 DNA at 37°C for 5 hours (a 250-fold over-digestion) resulted in ≤30% 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, and 20 units of Nar 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 ≤0.3 slope of %-end label released per unit of enzyme. Reaction volume of 50 µl.

5'-Exonuclease/5'-Phosphatase: Incubation of 5, 10, and 20 units of Nar I with 0.25 µg 5'-ends of [5-³²P]lambda/Hae III fragments for 1 hour at 37°C resulted in ≤0.3 slope of %-end label released per unit of enzyme. Reaction volume of 50 µl.

Ligation/Recut: Incubation of 10 units of Nar I with 1 µg of Ad-2 DNA at 37°C produces fragments that ligate with >90% efficiency. The recut efficiency of these ligated fragments is 100%.

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