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Certificate of Analysis

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Rsr II

Catalog No: 2342

Lot No: See Product Label

Package Size: See Product Label

Concentration: See Product Label

Source: Rhodospseudomonas sphaeroides

Storage Conditions: Store at -20°C

Recognition/Cut Site

5'-CG↓GWCCG-3'
3'-GCCWG↑GC-5'

Unit Definition

One unit is the amount of enzyme required to digest 1 µg of lambda DNA with ≥95% efficiency in 1 hour in a total reaction volume of 50 µl.

Note: Lambda contains 3 slow-cleavage sites that do not completely digest after 1-hour incubation. Complete digestion of these sites is achieved by 4 Units of Rsr II with 1 µg of lambda DNA incubated at 37°C for 16 hours.

Reaction Temperature

37°C

Heat Inactivation

10 minutes at 65°C

Assay Conditions

10 mM Tris-HCl (pH 7.5)

10 mM MgCl₂

1.0 mM dithiothreitol

1.0 µg of lambda DNA

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

Storage Buffer

10 mM Tris-HCl (pH 7.4)

50 mM KCl

0.1 mM EDTA

1 mM DTT

1.0 mg/ml Bovine Serum Albumin

0.1 M PMSF

50% (v/v) Glycerol

Quality Control

Non-specific Endonuclease: Incubation of 5, 10, and 20 units of Rsr II with 1.0 µg of lambda DNA at 37°C for 16 hours (a 160-fold over-digestion) resulted in the same sharp characteristic banding pattern as the standard assay reaction, as determined by agarose gel electrophoresis. Reaction Volume of 50 µl.

3'-Exonuclease: 5, 10 and 20 units of Rsr II and 1.0 pmoles of 3'-ends of lambda/TaqI fragments (3'-labelled with Klenow exo- 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 10 µl.

5'-Exonuclease/5'-Phosphatase: Incubation of 5, 10 and 20 units of Rsr II with 0.05 µg of 5'-ends of [5'-³²P]lambda/HaeIII fragments for 1 hour at 37°C resulted in ≤0.3 slope of %end label released per unit of enzyme. Reaction volume of 10 µl.

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