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ProductInformation

RESTRICTION ENDONUCLEASE Nci I

Product No. R5635

Store at 0 to -20 °C

Product Summary

Recognition Sequence: 5'CC(GC)GG'3 Activity: 10,000 units/ml Cutting: 100% Ligation: >30% Recutting: >0% No degradation detected with >10 units for 16 hrs. Fold over digestion: 160 (10 units x 16 hrs.) Package Size: 2,000 units

Unit Definition

One unit is the enzyme activity that completely cleaves 1 μ g λ DNA in 1 hr. at 37°C in a total volume of 25 μ l of buffer SL for restriction endonucleases.

Specificity

Nci I recognizes the sequence CC/GCGG and generates fragments with 5'-cohesive termini.¹ Nci I is the only restriction endonuclease which liberates 3'-phosphate and 5'-hydroxy termini after digestion of DNA.² Nci I is an isoschizomer to Bcm I. Nci I is inhibited at C^mC(GC)GG by the presence of 4'- or 5'-methylcytosine.

Comments

1 μg pBR322 DNA is digested completely by 1.5 units of enzyme.

Digestion Buffer SL is supplied as a 10x concentrate.

Information is not available for heat inactivation of Nci I.

Nci I Storage and Dilution Buffer Composition

20 mM Tris-HCl 20 mM NaCl 1.0 mM EDTA 10 mM 2-mercaptoethanol 50% (v/v) glycerol pH 7.5

1x Digestion Buffer SL (B 3782) Composition for Nci I: 100% Digestion at 37 °C.

10 mM Tris-HCl 10 mM MgCl₂ 1.0 mM dithioerythritol pH 7.5

Quality Control Testing

Absence of non-specific endonuclease activities:

1 $\mu g \; \lambda$ DNA is incubated for 16 hrs. in 50 μl of $\;$ buffer SL with excess units of Nci I.

References

- 1. Wabon, R., et al., FEBS Letters, 118, 47 (1980).
- 2. Kessler, C., et al., Gene, 92, 1 (1990).

7/98

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