



Product Information

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 µg λ DNA in 1 hr. at 37°C in a total volume of 25 µl 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 µg λ 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).