

Nrul

Catalog #NRU-RE101

Product Component	Sizes
Nrul (20U/μL)	400U, 2000U, 20kU
10X Cut Reaction Buffer	160μL, 800μL, 8mL

Storage/Transportation Condition Store at $-20^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for up to 24 months. Avoid repeated freeze/thaw cycles. Transport on dry ice.

Form Liquid

Source *E.coli* strain that carries Nrul gene from *Rhodococcus rhodochrous*

Storage Buffer 10 mM Tris-HCl, 50 mM KCl, 1 mM DTT, 0.1 mM EDTA, 200 μg/mL recombinant Albumin, 50% Glycerol, pH 7.4

10X Cut Reaction Buffer 200 mM Tris-acetate, 500 mM Potassium Acetate, 100 mM Magnesium Acetate, 1 mg/mL Recombinant Albumin, pH 7.9

Concentration 20U/μL

Unit Definition One unit is defined as the amount of enzyme required to digest 1 μg of λ DNA in 1 hour at 37°C in a total reaction volume of 50 μL.

Product Description

Nrul recognizes TCG/CGA sites and generates blunt ends after cleavage. Recombinant Albumin was added to the 10X Cut Reaction Buffer for stability and consistency. Isoschizomers of Nrul include Bsp68I, BtuMI and Rrul.

Quality Statement

This product is GMP-Ready, indicating that it is currently manufactured at industrial-grade and can be moved to GMP-Grade manufacturing standards as necessary.

Restriction Site

5'...TCG↓CGA...3'
3'...AGC↑GCT...5'

Applications

- Molecular Cloning
- Restriction site mapping
- Genotyping
- SNP

Recommended Protocol for Digestion

1. Make the reaction mixture according to the table below:

Reagent	Quantity
DNA	1 μg
10X Cut Reaction Buffer	5 μL
Nrul (20U/μL)	1 μL*
Nuclease-free H ₂ O	Up to 50 μL

*Add Nrul last, and it is recommended that the volume of Nrul should not exceed 10% of the reaction volume as high glycerol concentration (>5% v/v) may cause star activity.

2. Mix gently and incubate at 37 °C for 30 minutes.

Notes

1. Nrul is not sensitive to *Dcm* methylation. Cleavage is blocked by *Dam* and CpG methylation.
2. It is recommended to purify DNA sample before cleavage if there is contamination of phenol, chloroform, alcohol, EDTA or detergents which may interfere with restriction enzyme activity.
3. For research use only.