

Norgen Plasmid MiniPrep Kit

INTRODUCTION

The **Norgen Plasmid MiniPrep Kit** enables rapid analytical scale preparation of high quality DNA. Purification is based on spin column chromatography using silicon carbide as the separation matrix. Silicon carbide binds DNA under high salt concentration and releases the bound DNA under low salt and slightly alkali conditions. The kit purifies DNA without alcohols, a significant improvement over other techniques to achieve full compatibility with alcohol-sensitive applications. The purified DNA is free of genomic DNA, RNA and cellular proteins and is suitable for many downstream applications.

SPECIFICATIONS

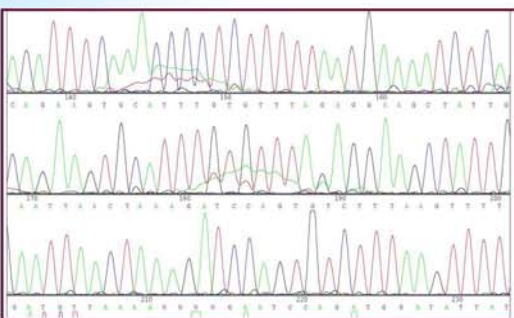
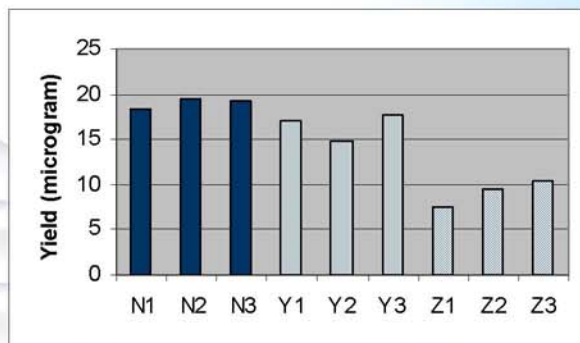
- Rapid spin-column chromatography format
- Column capacity of up to 25 µg
- Up to 19 µg DNA yield from 1.5mL culture
- Preparation of 12-24 samples in 30 minutes
- Alcohol-free protocol
- Full compatibility with restriction enzymes
- 95% to 100% sequencing accuracy of purified DNA
- Purification of up to 13,000bp plasmid verified
- Low, non-denaturing chaotrope concentrations in reagents
- Long kit shelf-life (>6 months)

PROTOCOL

1. Add *Resuspension Buffer* to cell pellet
2. Add *Lysis Buffer*
3. Add *Binding Buffer*
4. Separate pellicle by centrifugation
5. Bind DNA to column
6. Clean up column with *Wash Solution*
7. Recover DNA with *Elution Buffer*

HIGH DNA YIELD FROM SMALL CULTURES

Plasmid DNA from bacterial cultures grown overnight was prepared with the **Norgen Plasmid MiniPrep Kit** and compared with two other commercial kits. The yield for each of the triplicates are shown on the graph (N1 to N3 for Norgen, and Y1 to Y3 and Z1 to Z3 for competitor kits). The results show that the Norgen kit consistently outperforms the competitors with an average yield of 19 µg per preparation.



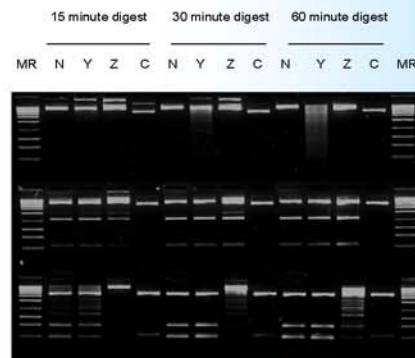
Sequencing of plasmid DNA purified with the **Norgen Plasmid MiniPrep Kit**. Accuracy of up to 100% was obtained for a 950bp contiguous sequence.

HIGH-ACCURACY SEQUENCING OF DNA PRODUCT

Sequencing of purified plasmid as template achieves high accuracy rate of 95% to 100%.

FULL COMPATIBILITY WITH RESTRICTION DIGESTS

Purified plasmid DNA is highly digestible with restriction enzymes, usually requiring less time to digest completely than DNA purified with other kits as shown in time-course digestion experiments.



Legend: (MR = Norgen Mid Ranger Marker, N = Norgen DNA, Y = competitor 1, Z = competitor 2, C = pUC19 banded DNA). All lanes N, Y and Z contained digests of pUC19 vector with insert. Expected fragments are shown on the table.

Vector	Hind III	EcoR1	Pvu II
pUC with insert	4123bp	2649, 1154, and 320bp	2364, 494, 300, 219, and 135bp
pUC 19	2686bp	2686bp	350 bp, 2336bp