

Bacterial Genomic DNA Isolation Kit

Norgen's **Bacterial Genomic DNA Isolation Kit** is designed for the rapid preparation of genomic DNA from 2×10^9 viable bacterial cells (between 0.5 and 1.0 mL of culture). Purification is based on spin column chromatography as the separation matrix. Norgen's column binds DNA under high salt concentrations and releases the bound DNA under low salt and slightly alkali conditions. The purified genomic DNA is fully digestible with all restriction enzymes tested, and is completely compatible with PCR and Southern Blot analysis.



The Bacterial Genomic DNA Isolation Kit allows for the isolation of genomic DNA from both gram negative and gram positive cultures, including *Escherichia coli* and *Bacillus cereus*. The genomic DNA is preferentially purified from other cellular proteinaceous components. Typical yields of genomic DNA will vary depending on the cell density of the bacterial culture and the bacterial species. Preparation time for a single sample is approximately 45 minutes, and each kit contains sufficient materials for 50 or 192 preparations.

| Kit Specifications - Spin Columns | | | |
|-----------------------------------|---------------------------------|-----------------------------------|------------------------|
| Maximum Input | 2×10^9 bacterial cells | Average Yield* | Up to 20 μg |
| Column Binding Capacity | 25 μg | Time to Complete 10 Purifications | 1 hour |

| Kit Specifications - 96-Well Plates | | | |
|-------------------------------------|---------------------------------|-----------------------------------|------------------------|
| Maximum Input per Well | 2×10^9 bacterial cells | Average Yield* | Up to 20 μg |
| Well Binding Capacity | 25 μg | Time to Complete 96 Purifications | 90 minutes |

* Average yield will vary due to cell density of the bacterial culture, the growth conditions and the bacterial species.

Bacterial Genomic DNA Isolation Kit Benefits

| | |
|---|---|
| Fast and easy processing | Rapid spin-column format allows for the processing of multiple samples in 1 hour, and the 96-well plate can be processed in 90 minutes. |
| High binding capacity of columns | The binding capacity of the columns in the Bacterial Genomic DNA Isolation Kit is 25 μg . |
| Isolate genomic DNA from all types of bacteria | Genomic DNA can be isolated from both Gram negative and Gram positive bacteria (Figure 1). |
| Recovered genomic DNA is suitable for downstream applications | Purified genomic DNA is fully compatible with restriction enzyme digestions, sequencing and PCR analysis. |
| High quality DNA | No degradation of the genomic DNA isolated with the Bacterial Genomic DNA Isolation Kit is observed. |

Bacterial Genomic DNA Isolation Kit

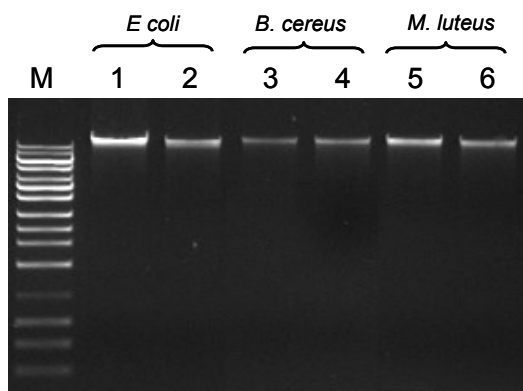


Figure 1. Isolation of Genomic DNA from both Gram Positive and Gram Negative Bacteria

The Bacterial Genomic DNA Isolation Kit was used to isolate genomic DNA from the gram-negative bacteria *E. coli* (Lanes 1 and 2), the lysozyme-resistant gram positive bacteria *B. cereus* (Lanes 3 and 4) and the gram positive bacteria *M. luteus* (Lanes 5 and 6). Lane M is Norgen's UltraRanger 1kb DNA Ladder

Bacterial Genomic DNA Isolation Kit Contents

1. Resuspension Solution A
2. Lysis Buffer P
3. Solution BX
4. Wash Solution A
5. Elution Buffer B
6. Proteinase K
7. Spin Columns inserted into Collection Tubes
8. Elution tubes (1.7 mL)
9. Product Insert

Shipping Conditions

The Bacterial Genomic DNA Isolation Kit is shipped at room temperature.

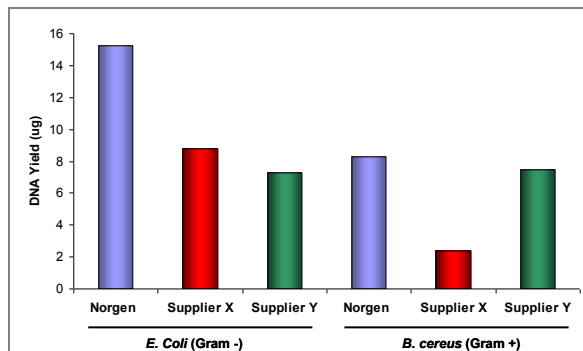


Figure 2. High Yield Purification

The high yield of the Bacterial Genomic DNA Isolation Kit is illustrated by purifying genomic DNA from both a Gram positive and a Gram negative strain, and comparing the yield with two major competitors. With both types of bacteria, Norgen's kit was found to give a higher recovery after both 1 and 2 elutions.

Customer-Supplied Reagents and Equipment

- Benchtop microcentrifuge
- 1.5 mL microcentrifuge tubes
- 55°C water bath or heating block
- 37°C water bath or heating block (gram positive strains only)
- Lysozyme (Gram positive strains only)
- RNase A (optional)

Storage Conditions

All solutions should be kept tightly sealed and stored at room temperature. These reagents should remain stable for 1 year in their unopened containers. The lyophilized Proteinase K should be stored at -20°C upon arrival and after reconstitution.

| Cat # | Description | Quantity |
|-------|---|-----------|
| 17900 | Bacterial Genomic DNA Isolation Kit | 50 preps |
| 17950 | Bacterial Genomic DNA Isolation 96-Well Kit | 192 preps |

Distributed by:

 **Sial** S.r.l.

Indirizzo: Via Giovanni Devoti 14 – 00167 Roma
C.F. 01086690581 P.IVA 00959981002 C.C.I.A. 383067/14/5 – Roma
Tel.: 06 6625209 Fax: 06 6628503 email: info@sialgroup.com
sito web: www.sialgroup.com