

Urine Bacteria Genomic DNA Isolation Kit

Norgen's Urine Bacteria Genomic DNA Isolation Kit is designed for the rapid preparation of bacterial genomic DNA from 1 to 20 mL urine samples. Bacterial genomic DNA can be isolated from both human urine samples and urine samples from animals in order to study the levels and types of bacteria that are present. The kit allows for the isolation of genomic DNA from both Gram negative and Gram positive bacteria, including *E. coli*, *Proteus* spp., *Klebsiella* spp., *Enterobacter* spp., *Serratia* spp., *Pseudomonas* spp, *Clostridial* spp. and *Leptospiriosis* spp., as well as *Chlamydia trachomatis* and *Neisseria gonorrhoeae*. Purification is based on spin column chromatography using Norgen's resin as the separation matrix. The purified genomic DNA is fully digestible with all restriction enzymes tested, and is completely compatible with PCR and Southern Blot analysis .

The Urine Bacteria Genomic DNA Isolation Kit preferentially purifies DNA from other cellular proteinaceous components. Typical yields of genomic DNA will vary depending on the urine sample and the bacterial species, if any, present in the urine. Healthy humans generally have < 10, 000 CFU of bacteria per mL of urine, and this kit is sufficiently sensitive to isolate and detect DNA from even this minimal amount of bacteria.

Kit Specifications			
Maximum Urine Input	20 mL	Bacterial Species Processed	Gram positive and Gram negative
Minimum Urine Input	1 mL	Time to Complete 10 Purifications	45 minutes

Urine Bacteria Genomic DNA Isolation Kit Benefits

Fast and easy processing	Rapid spin-column format allows for the processing of multiple samples in 45 minutes.
Isolate high quality DNA	No degradation of the genomic DNA isolated with the Urine Bacteria Genomic DNA Isolation Kit is observed.
Isolate genomic DNA from all types of bacteria found in urine	Bacterial genomic DNA can be isolated from both Gram negative and Gram positive bacteria using the kit (Figure 1).
High sensitivity	Isolate and detect bacterial DNA from as little as 1 mL of healthy human urine (Figure 2).
Recovered genomic DNA is suitable for downstream applications	Purified genomic DNA is fully compatible with restriction enzyme digestions, PCR amplifications, quantitative PCR and Southern Blot analysis.

Urine Bacteria Genomic DNA Isolation Kit

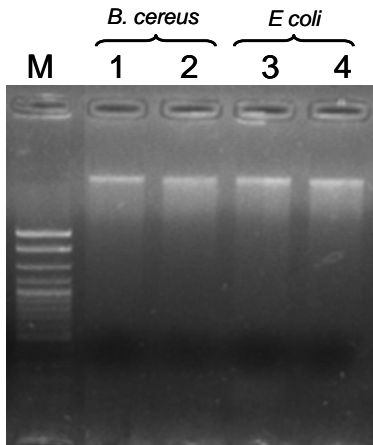


Figure 1. Isolation of Genomic DNA from both Gram Positive and Gram Negative Urine Bacteria
Norgen's Urine Bacteria Genomic DNA Isolation Kit was used to isolate genomic DNA from urine samples spiked with the Gram positive bacteria *B. cereus* (Lanes 1 and 2) and the Gram negative bacteria *E. coli* (Lanes 3 and 4). Lane M is Norgen's Mid-Ranger 1kb DNA Ladder.

Urine Bacteria Genomic DNA Isolation Kit Contents

1. Resuspension Solution
2. Lysis Solution
3. Binding Solution
4. Proteinase K (lyophilized)
5. Wash Solution I
6. Wash Solution II
7. Elution Buffer
8. Micro Spin Columns
9. Collection Tubes
10. Elution Tubes
11. Product Insert

Shipping Conditions

The Urine Bacteria Genomic DNA Isolation Kit is shipped at room temperature.

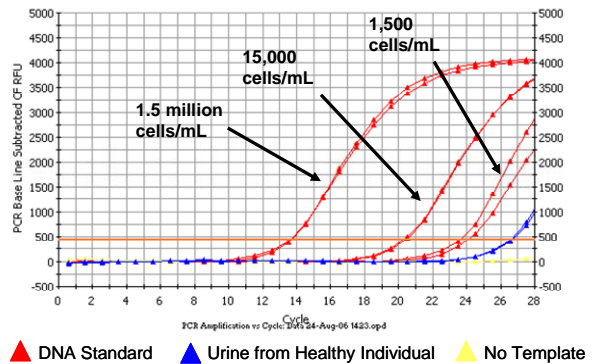


Figure 2. Isolation and Detection of Bacterial Genomic DNA from 1 mL of Urine

Bacterial genomic DNA was isolated from a 1 mL sample of healthy human urine using the Urine Bacteria Genomic DNA Isolation Kit, and was subsequently detected using quantitative PCR. Healthy humans generally have < 10,000 CFU per mL of urine, and this kit is sensitive enough to isolate genomic DNA from this small amount of bacteria (blue line in graph above).

Customer-Supplied Reagents and Equipment

- Benchtop microcentrifuge
- 1.5 mL microcentrifuge tubes
- 55°C water bath or heating block
- 96 - 100% ethanol
- 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
22400	Urine Bacteria Genomic DNA Isolation Kit	20 samples