

## Urine (Exfoliated Cell) DNA Isolation Kit

Norgen's Urine (Exfoliated Cell) DNA Isolation Kit is designed for the rapid preparation of genomic DNA from exfoliated cells that have been shed into the urine from the urinary tract. The genomic DNA isolated from these exfoliated cells can be used in a number of research applications including biomarker studies for the diagnosis and monitoring of bladder, kidney, or other urinary-tract cancers. Purification is based on spin column chromatography using Norgen's proprietary resin as the separation matrix. The kit preferentially purifies DNA from other cellular proteinaceous components, as well as from the contaminating species found in urine such as glucose and salts.



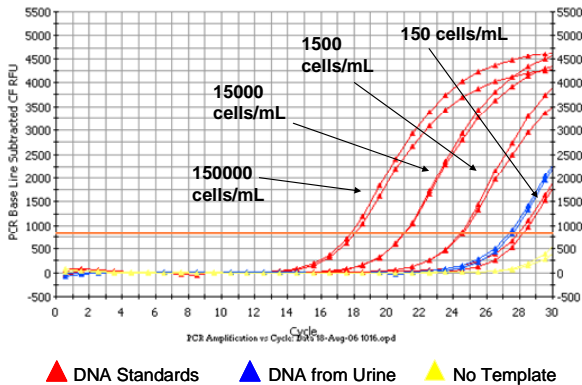
The Urine (Exfoliated Cell) DNA Isolation Kit allows for the isolation of genomic DNA from exfoliated cells present in 1 to 50 mL of urine. Typical yields of DNA will vary depending on the cell density of the urine sample, which is affected by a number of factors including health, diet and sex of the individual donating the urine. The purified urine DNA is compatible with downstream application such as PCR, quantitative PCR, and Southern Blot analysis.

Kit Specifications			
Maximum Urine Input	50 mL	Maximum Input of Exfoliated Cells	1 x 10 <sup>6</sup>
Minimum Urine Input	1 mL	Time to Complete 10 Purifications	15 minutes (plus a 30 min incubation)

### Urine (Exfoliated Cell) DNA Isolation Kit Benefits

Fast processing	Rapid spin-column format allows for the processing of multiple samples in 15 minutes (plus a 30 minute incubation).
Isolate genomic DNA from small volumes of urine	DNA can be isolated and detected from the exfoliated cells found in as little as 1 mL of urine.
High quality DNA	Removal of highly concentrated salts, metabolic wastes and proteins provides high quality DNA to be used in various downstream applications.
Recovered DNA is suitable for downstream applications	Purified DNA is fully compatible with PCR, quantitative PCR and Southern Blot analysis.

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**Figure 1. Isolation and Detection of Biologically Active Genomic DNA from 1 mL of Urine**

Genomic DNA was isolated from the exfoliated cells found in a 1 mL urine sample using Norgen's Urine (Exfoliated Cell) DNA Isolation Kit. The isolated DNA was then subjected to quantitative PCR using human beta actin gene primers to detect the genomic DNA. The red lines in the PCR baseline graph above correspond to DNA standards, while the blue lines correspond to the successful PCR results when DNA isolated from the exfoliated cells in 1 mL of urine was used as the template.

### Shipping Conditions

The Urine (Exfoliated Cell) DNA Isolation Kit is shipped at room temperature.

### Urine (Exfoliated Cell) DNA Isolation Kit Contents

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

### 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)
- Molecular biology grade water

### Storage Conditions

All solutions should be kept tightly sealed and stored at room temperature. All reagents should remain stable for at least 1 year in their unopened containers.

Cat #	Description	Quantity
22300	Urine (Exfoliated Cell) DNA Isolation Kit	20 samples