

Cells and Tissue DNA Isolation Kit

Norgen's Cells and Tissue DNA Isolation Kit is designed for the rapid preparation of genomic DNA from cultured cells as well as various tissue samples. Purification is based on spin column chromatography as the separation matrix. Norgen's columns bind DNA under optimized salt concentrations and release 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 Cells and Tissue DNA Isolation Kit allows for the isolation of genomic DNA from various types of animal tissues or cell samples. The genomic DNA is preferentially purified from other cellular proteinaceous components. Typical yields of genomic DNA will vary depending on the sample being processed. Preparation time for a single sample is approximately 60 minutes, and each kit contains sufficient materials for 50 preparations.

Kit Specifications			
Maximum Input	20 mg of animal tissue 3 x 10 ⁶ cells	Elution Volume	50 - 200 µL
Column Binding Capacity	> 50 µg	Analyte Purified	Genomic DNA, mitochondrial DNA
Average Yield	8 µg (1 x 10 ⁶ HeLa Cells) 10 µg (10 mg kidney)	Time to Complete 10 Purifications	30 min (cells) and 90 min (tissue)

Cells and Tissue DNA Isolation Kit Benefits

Robust	Isolate genomic DNA from cultured cells as well as various tissue types
Rapid procedure	Fast and easy processing using a rapid spin-column format
Reduce variability	Isolate high quality genomic DNA
Applicable with downstream applications	Recovered genomic DNA is compatible with various downstream applications

Cells and Tissue DNA Isolation Kit

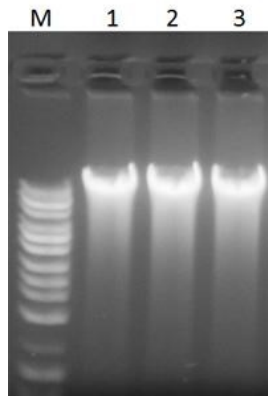


Figure 1. Isolation of High Quality Genomic DNA from Tissue. Genomic DNA was isolated from 15 mg of liver tissue using Norgen's Cells and Tissue DNA Isolation Kit. Triplicate samples were used (lanes 1-3) and yielded genomic DNA of the highest quality and integrity. Lane M is the Norgen Ultra-Ranger 1kb DNA Ladder. For all purified DNA, 15 μ L of each 200 μ L elution were resolved on a 1X TAE, 1% agarose DNA gel.

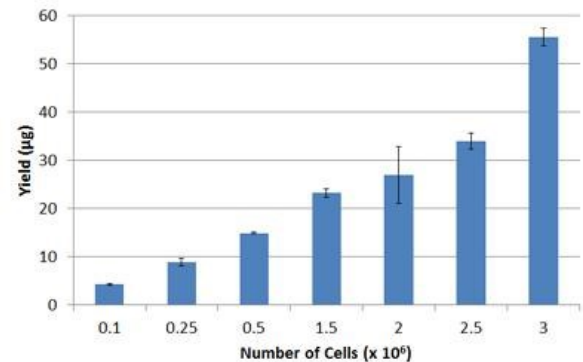


Figure 3. Yield of Genomic DNA from 0.1×10^6 up to 3×10^6 mammalian cells. Genomic DNA was isolated from 0.1 up to 3 million HeLa cells using Norgen's Cells and Tissue DNA Isolation Kit. Triplicate samples were used from each cell input and 25 μ L of the 200 μ L elution were diluted in 475 μ L of nuclease-free water, and DNA concentrations were measured using the UltraSpec 2100 Pro (Fisher Scientific). Linear increase in DNA yield was obtained when increasing the cell input from 0.1×10^6 - 3×10^6 HeLa cells.

Cells and Tissue DNA Isolation Kit Contents

Lysis Buffer B
Solution WN
Wash Solution A
Elution Buffer B
Proteinase K
Spin Columns
Collection Tubes
Elution tubes (1.7 mL)
Product Insert

Shipping Conditions

The Cells and Tissue DNA Isolation Kit is shipped at room temperature.

Customer-Supplied Reagents and Equipment

- Benchtop microcentrifuge
- Micropipettors
- 2 mL microcentrifuge tubes
- Nuclease-free water
- Phosphate buffered saline (PBS)
- 96 - 100% ethanol
- 56°C waterbath or incubator
- Cell Disruption Tools such as mortar and pestle, rotor-stator homogenizer
- Syringe with a 22G needle
- RNase A (optional)

Storage Conditions

All solutions should be kept tightly sealed and stored at room temperature. To prolong the life-time of Proteinase K, storage at 2–8°C is recommended.

Cat #	Description	Quantity
53100	Cells and Tissue DNA Isolation Kit	50 samples