

Genomic DNA Isolation Kit

Norgen's Genomic DNA Isolation Kit is designed for the rapid preparation of genomic DNA from various tissue samples, cultured cells, bodily fluids and nasal or throat swabs. Purification is based on spin column chromatography using Norgen's proprietary resin as the separation matrix. Norgen's resin 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 Genomic DNA Isolation Kit allows for the isolation of genomic DNA from various types of animal tissues or cell samples. In addition, a protocol is also provided for the purification of viral DNA. In all cases 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			
Column Binding Capacity	25 µg	Maximum Amount of Starting Material:	
Time to Complete 10 Purifications	80 minutes	Animal Tissues	20 mg
Average Yield*		Cultured Cells	3 x 10 ⁶ cells
HeLa Cells (1 x 10 ⁶)	8 µg	Bodily Fluids (blood, saliva)	150 µL
Tissue (10 mg kidney)	10 µg	Viral Suspension	150 µL

Genomic DNA Isolation Kit Benefits

Fast and easy processing	Rapid spin-column format allows for the processing of multiple samples in 80 minutes (including a 1 hour incubation).
High binding capacity of columns	The binding capacity of the columns in the Genomic DNA Isolation Kit is 25 µg.
Isolate genomic DNA from a diversity of species	Genomic DNA can be isolated from various tissue samples, cultured cells, bodily fluids including blood and saliva, and viruses.
Recovered genomic DNA is suitable for downstream applications	Purified genomic DNA is fully compatible with restriction enzyme digestions, PCR amplifications and Southern Blot analysis (Figure 2).
High quality DNA	No degradation of the genomic DNA isolated with the Genomic DNA Isolation Kit is observed (Figure 1).

Genomic DNA Isolation Kit

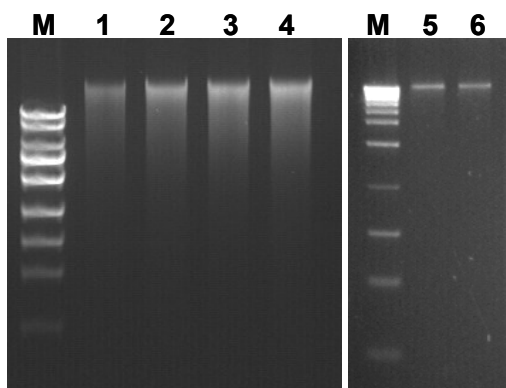


Figure 1. Isolation of High Quality Genomic DNA

Genomic DNA was isolated from various sample types using Norgen's Genomic DNA Isolation Kit. Lanes 1-4 contain genomic DNA that was isolated from 4 different samples containing 5×10^5 HeLa cells, while lanes 5 and 6 contain genomic DNA that was isolated from 5 mg of heart tissue. All the purified genomic is of the highest quality and integrity.

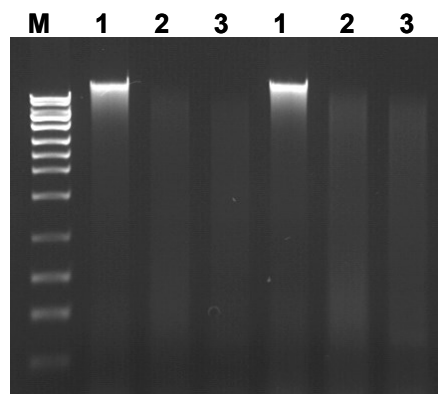


Figure 2. Full Compatibility with Digests

Genomic DNA was isolated from 10 mg of kidney tissue using Norgen's Genomic DNA Isolation Kit, and subsequently digested. Each Lane 1 contains undigested Norgen-isolated DNA, while Lanes 2 contain the genomic DNA digested with *Hind*III and Lanes 3 contain the genomic DNA digested with *Nde*I. Lane M is Norgen's HighRanger 1kb DNA Ladder.

Genomic DNA Isolation Kit Contents

1. Digestion Buffer A
2. Buffer SK
3. Wash Solution A
4. Elution Buffer B
5. Proteinase K
6. Spin Columns
7. Collection Tubes
8. Elution tubes (1.7 mL)
9. Product Insert

Shipping Conditions

The Genomic DNA Isolation Kit is shipped at room temperature.

Customer-Supplied Reagents and Equipment

- Benchtop microcentrifuge
- 1.5 mL microcentrifuge tubes
- 55°C water bath or heating block
- 96 - 100% ethanol
- Cell disruption tools such as mortar and pestle, rotor-stator homogenizer
- RNase A (optional)

Storage Conditions

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

Cat #	Description	Quantity
24700	Genomic DNA Isolation Kit	50 preps
24750	Genomic DNA Isolation Kit	100 preps