

Blood Genomic DNA Isolation Kit

Norgen's Blood Genomic DNA Isolation Kit is designed for the rapid preparation of genomic DNA from up to 200 μL of whole blood, plasma and serum. Purification is based on spin column chromatography using Norgen's patented 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 DNA is free of RNA and cellular proteinaceous components, and is suitable for many downstream applications.

The Blood Genomic DNA Isolation Kit allows for the isolation of genomic DNA from the blood of various species, including humans. Typical purification yields will vary depending on the cell density of the blood sample.



| Kit Specifications | | | |
|-------------------------|-------------------|-----------------------------------|-----------------------|
| Maximum Blood Input | 200 μL | Average Yield | 3 - 5 μg^* |
| Column Binding Capacity | 25 μg | Time to Complete 10 Purifications | 30 minutes |

* Yield will vary depending on the type of blood processed

Blood Genomic DNA Isolation Kit Benefits

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|---|--|
| Fast and easy processing | Rapid spin-column format allows for the processing of multiple samples in 30 minutes. |
| Isolate genomic DNA from various inputs | Genomic DNA can be isolated from various blood inputs including plasma, whole blood and serum. |
| High quality DNA | Isolated DNA is of the highest quality and free from RNA contamination (Figure 1). |
| Recovered genomic DNA is suitable for downstream applications | Purified genomic DNA is fully compatible with restriction enzyme digestions, PCR (Figure 2), and Southern Blot analysis. |

Blood Genomic DNA Isolation Kit

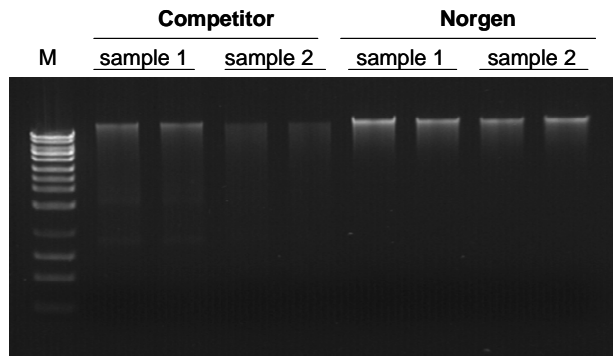


Figure 1. High Yields of Genomic DNA Isolated from Whole Blood. Genomic DNA was isolated from two different 200 μ L whole blood samples using Norgen's Blood Genomic DNA Isolation Kit and a leading competitor's kit. Following isolation, 10 μ L from 200 μ L elution was loaded on 1% TAE agarose gel. Norgen's Blood Genomic DNA Isolation Kit demonstrated a better DNA yield than the leading competitor's kit. Lane M: Norgen's HighRanger 1kb DNA Ladder.

Blood Genomic DNA Isolation Kit Contents

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

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.

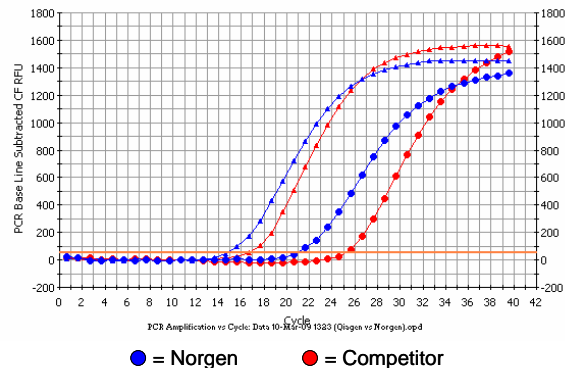


Figure 2. Purified DNA Can be Amplified in a Real-time PCR (SYBR Green) Reaction. Genomic DNA was isolated from 200 μ L of whole rat blood (Δ) and whole rabbit blood (O) whole blood samples using Norgen's Blood Genomic DNA Isolation Kit (Blue) and a leading competitor's kit (Red). Two μ L of the DNA from each 200 μ L of elution was used in a real-time PCR reaction (total reaction volume of 20 μ L) with 5s rDNA primers. The real-time PCR was successful in amplifying 5s gene from both the rat and rabbit blood DNA, indicating that the DNA is of a high quality and can be used in sensitive downstream applications. Furthermore, Norgen-isolated DNA was amplified with a lower Ct value, indicating the higher yield and purity of DNA isolated using Norgen's kit.

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)

Shipping Conditions

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

| Cat # | Description | Quantity |
|-------|---------------------------------|----------|
| 18200 | Blood Genomic DNA Isolation Kit | 50 preps |