

## Blood Genomic DNA Isolation Kit

Norgen's Blood Genomic DNA Isolation Kit is designed for the rapid preparation of genomic DNA from up to 500  $\mu\text{L}$  of whole blood. Purification is based on spin column chromatography. Norgen's column binds DNA under optimized 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.



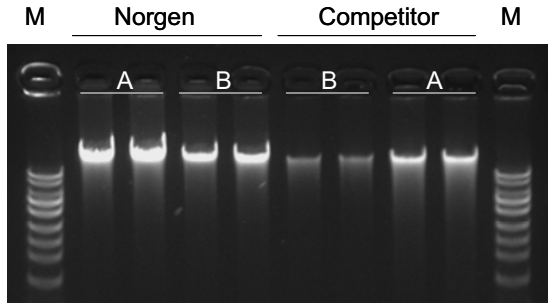
Kit Specifications			
Maximum Blood Input	500 $\mu\text{L}$	Average Yield (from 200 $\mu\text{L}$ )	3 - 12 $\mu\text{g}^*$
Column Binding Capacity	> 50 $\mu\text{g}$	Time to Complete 10 Purifications	30 minutes

\* Yield will vary depending on the type of blood processed

### Blood Genomic DNA Isolation Kit Benefits

Fast and easy processing	Rapid spin-column format allows for the processing of multiple samples in 30 minutes.
High quality DNA	Isolated DNA is of the highest quality and free from RNA contamination.
Recovered genomic DNA is suitable for downstream applications	Purified genomic DNA is fully compatible with restriction enzyme digestions, PCR, and Southern Blot analysis.

## Blood Genomic DNA Isolation Kit



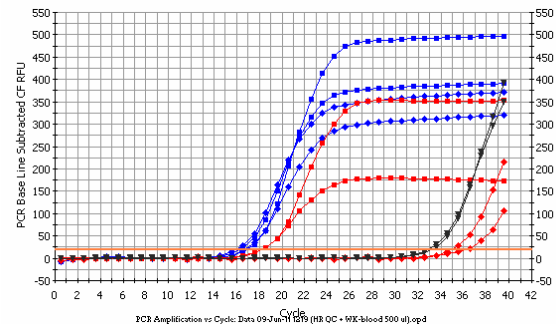
**Figure 1. High Yields of Genomic DNA Isolated from Whole Blood.** Genomic DNA was isolated from two different 500  $\mu$ L whole blood samples using Norgen's Blood Genomic DNA Isolation Kit and a leading competitor's kit. Following isolation, 10  $\mu$ L from 200  $\mu$ L elution was loaded on 1% TAE 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. Proteinase K
3. Wash Solution
4. Elution Buffer
5. Micro Spin Columns in Collection Tubes
6. Collection Tubes
7. Elution Tubes
8. Product Insert

### Storage Conditions

All 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. The kit contains a ready-to-use Proteinase K solution, which is dissolved in a specially prepared storage buffer. The Proteinase K is stable for up to 1 year after delivery when stored at room temperature. To prolong the lifetime of Proteinase K, storage at 2–8°C is recommended.



**Figure 2. Purified DNA Can be Amplified in a Real-time PCR (SYBR Green) Reaction.** Genomic DNA was isolated from 500  $\mu$ L of whole human blood samples using Norgen's Blood Genomic DNA Isolation Micro Kit (Blue) and a leading competitor's kit (Red). Two  $\mu$ L of the DNA from each 200  $\mu$ L of elution was used in a real-time PCR reaction (total reaction volume of 20  $\mu$ L) with GAPDH primers. The real-time PCR was successful in amplifying the GAPDH gene, 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. The black line is a no-template control.

### Customer-Supplied Reagents and Equipment

- Benchtop microcentrifuge
- 1.5 mL microcentrifuge tubes
- 55°C water bath or heating block
- 96 - 100% ethanol
- Isopropanol

### Shipping Conditions

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

Cat #	Description	Quantity
46300	Blood Genomic DNA Isolation Kit	50 preps