

## Blood Genomic DNA Isolation Maxi Kit

Norgen's Blood Genomic DNA Isolation Maxi Kit is designed for the rapid preparation of genomic DNA from 2 mL to 10 mL 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 Maxi 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.

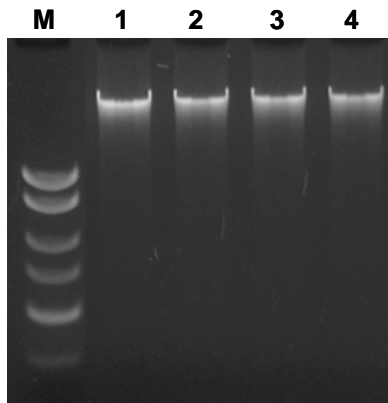
Kit Specifications			
Minimum Blood Input	2 mL	Average Yield *	
		10 mL blood	200-600 µg
Maximum Blood Input	10 mL	Time to Complete 10 Purifications	30 minutes

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

### Blood Genomic DNA Isolation Maxi Kit Benefits

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 Maxi Kit



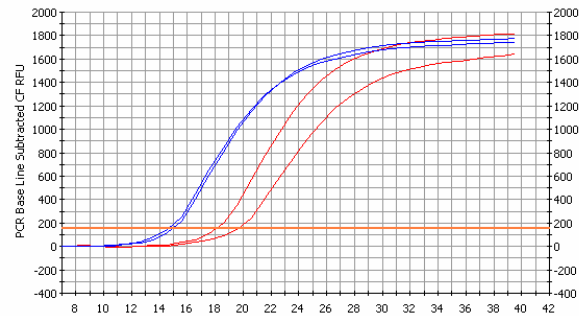
**Figure 1. High Yields of Genomic DNA Isolated from Whole Blood.** Genomic DNA was isolated from two different 2 mL whole blood samples using Norgen's Blood Genomic DNA Isolation Maxi Kit. Following isolation, 10  $\mu$ L from each 1 mL elution was loaded on 1% TAE agarose gel. Lanes 1 and 3 correspond to the first elution, while Lanes 2 and 4 correspond to the second elution. Norgen's Blood Genomic DNA Isolation Maxi Kit demonstrated a high yield of intact genomic DNA.

### Blood Genomic DNA Isolation Maxi Kit Contents

1. Lysis Solution
2. Binding Solution
3. Wash Solution I
4. Wash Solution II
5. Elution Buffer
6. Proteinase K
7. Maxi Columns with Collection Tubes
8. Product Insert

### Customer-Supplied Reagents and Equipment

- Benchtop centrifuge
- 50 mL conical tubes
- 55°C water bath or heating block
- 96 - 100% ethanol
- Isopropanol



**Figure 2. Purified DNA Can be Amplified in a Real-time PCR (SYBR Green) Reaction.** Genomic DNA was isolated from two different 2 mL samples of whole blood using Norgen's Blood Genomic DNA Isolation Maxi Kit. Five  $\mu$ L of the DNA from each 1 mL elution was used in a real-time PCR reaction (total reaction volume of 20  $\mu$ L) with 5s rDNA primers and Norgen's 2X SYBR Green/Fluorescein qPCR Master Mix. The real-time PCR was successful in amplifying the 5s gene from both the first elution (E1, Blue Lines) and the second elution (E2, Red Lines), indicating that the DNA is of a high quality and can be used in sensitive downstream applications.

### Shipping Conditions

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

### 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.

Cat #	Description	Quantity
31200	Blood Genomic DNA Isolation Maxi Kit	12 preps