

Blood DNA Isolation Midi Kit

Norgen's Blood DNA Isolation Midi Kit is designed for the rapid preparation of genomic DNA from 0.3 to 2 mL of whole blood. Purification is based on spin column chromatography as the separation matrix. Norgen's column binds DNA under optimized 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 downstream applications including real-time PCR and southern blot analysis.



Norgen's Blood DNA Isolation Kit allows for the isolation of genomic DNA from the blood of various species, including humans. The genomic DNA is preferentially purified from other cellular proteinaceous components. Typical yields of genomic DNA will vary depending on the cell density of the blood sample. Preparation time for a single sample is less than 45 minutes, and each kit contains sufficient materials for 20 preparations.

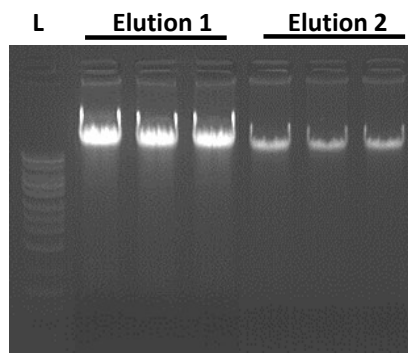
Kit Specifications			
Blood Input	0.3 - 2 mL	Average Yield (from 1 mL blood)	60 µg*
Column Binding Capacity	> 100 µg	Time to Complete 10 Purifications	45 minutes

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

Blood DNA Isolation Midi Kit Benefits

Fast and easy processing	Rapid spin-column format allows for the processing of multiple samples in 45 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 DNA Isolation Midi Kit



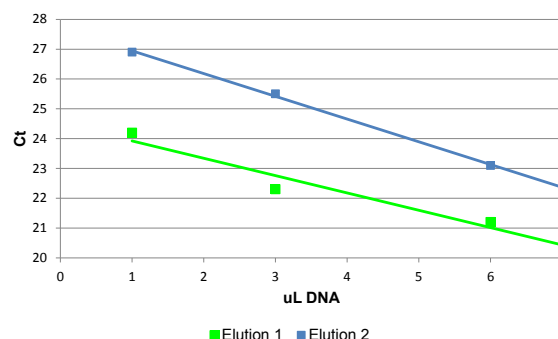
**Figure 1. High Yields of Genomic DNA Isolated from 2 mL of Whole Blood.** Genomic DNA was isolated from 2 mL of whole blood using Norgen's Blood DNA Isolation Midi Kit. Following isolation, 20  $\mu$ L from the 300  $\mu$ L first and 20  $\mu$ L from the 300  $\mu$ L second elution was loaded on 1% TAE agarose gel. Norgen's Blood DNA Isolation Kit demonstrated a high DNA yield and integrity. Lane L: Norgen's HighRanger 1kb DNA Ladder.

### Blood DNA Isolation Kit Contents

1. Lysis Buffer B
2. Solution WN
3. Wash Solution A
4. Elution Buffer B
5. Proteinase K
6. Midi Spin Columns
7. Midi Collection Tubes
8. Midi 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 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 (TaqMan) Reaction.** Genomic DNA was isolated from 2 mL of whole human blood using Norgen's Blood DNA Isolation Midi Kit. Different amounts (1, 3 & 6  $\mu$ L) of the DNA from each of the 300  $\mu$ L elutions was used in a real-time PCR reaction (total reaction volume of 20  $\mu$ L) with GAPDH TaqMan probe and primers. The real-time PCR was successful in amplifying the GAPDH gene with a linear decrease in Ct value with the increased DNA template volume, indicating that the DNA is of a high quality and can be used in sensitive downstream applications.

### Customer-Supplied Reagents and Equipment

- Variable speed swing bucket centrifuge that can reach 4500 x g (5000 rpm) and can accommodate 15 mL centrifuge tubes
- Micropipettors
- 96 - 100% ethanol
- 70°C waterbath or incubator

### Shipping Conditions

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

Cat #	Description	Quantity
51400	Blood DNA Isolation Midi Kit	20 preps