

Blood DNA Isolation Micro Kit

Norgen's Blood DNA Isolation Micro Kit is designed for the rapid preparation of genomic DNA from 1 mL to 100 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 Genomic DNA Isolation Micro 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 30 minutes, and each kit contains sufficient materials for 50 preparations.

Kit Specifications			
Minimum Blood Input	1 μ L	Minimum Elution Volume	20 μ L
Maximum Blood Input	100 μ L	Average Yield (from 100 μ L)	2 - 6 μ g*
Column Binding Capacity	> 25 μ g	Time to Complete 10 Purifications	30 minutes

* Yield will vary depending on the type of blood processed

Blood DNA Isolation Micro Kit Benefits

Isolate DNA from small blood inputs	Isolate genomic DNA from as little as 1 μ L of blood.
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 DNA Isolation Micro Kit

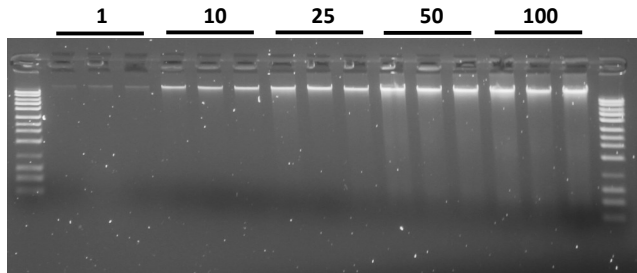


Figure 1. High Yields of Genomic DNA Isolated from 1 μ L to 100 μ L of Whole Blood. Genomic DNA was isolated from 1, 10, 25, 50 and 100 μ L of whole blood using Norgen's Blood DNA Isolation Micro Kit. Following isolation, 15 μ L from each 100 μ L elution was loaded on 1% TAE agarose gel. Norgen's Blood Genomic DNA Isolation Micro Kit demonstrated a good DNA yield and integrity. Lane M: Norgen's UltraRanger 1kb DNA Ladder.

Blood DNA Isolation Micro Kit Contents

1. Lysis Buffer B
2. Solution WN
3. Wash Solution A
4. Elution Buffer B
5. Proteinase K
6. Micro Spin Columns
7. Collection Tubes
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 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.

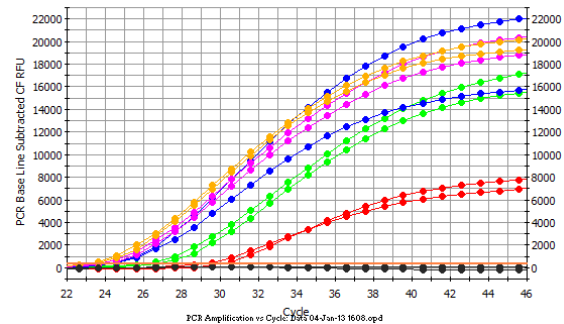


Figure 2. Purified DNA Can be Amplified in a Real-time PCR (TaqMan) Reaction. Genomic DNA was isolated from 1, 10, 25, 50 and 100 μ L of whole human blood using Norgen's Blood DNA Isolation Micro Kit. Five μ L of the DNA from each 100 μ L elution was used in a real-time PCR reaction (total reaction volume of 20 μ L) with GAPDH TaqMan probe and primers. The real-time PCR was successful in amplifying the GAPDH gene from all the isolated DNA from the different blood input volumes: 1 μ L (red), 10 μ L (green), 25 μ L (blue), 50 μ L (pink) and 100 μ L (orange). This indicates that the isolated DNA from all blood input volumes is of a high quality and can be used in sensitive downstream applications. 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
- Nuclease-free water

Shipping Conditions

The Blood DNA Isolation Kit is shipped at room temperature.

Cat #	Description	Quantity
52100	Blood DNA Isolation Micro Kit	50 preps