

Dried Blood Spot DNA Isolation Kit

Norgen's Dried Blood Spot DNA Isolation Kit is designed for the rapid preparation of total genomic DNA from dried blood spots. Purification is based on spin column chromatography. Norgen's column binds DNA under high salt concentrations and releases the bound DNA under low salt and slightly alkaline conditions. The genomic DNA is preferentially purified from RNA and cellular proteinaceous components. The purified genomic DNA is fully digestible with all restriction enzymes tested, and is completely compatible with downstream applications including Southern Blot analysis.



The Dried Blood Spot DNA Isolation Kit allows for the isolation of genomic DNA from the blood of various species, including humans. The blood should be spotted and dried on suitable filter paper or specimen collection cards. Typical yields of genomic DNA will vary depending on the cell density of the blood sample. Preparation time for a single sample is 30 minutes, and each kit contains sufficient materials for 50 preparations.

Kit Specifications			
Maximum Blood Input	3 x 3mm diameter punches	Column Binding Capacity	>50 µg
Average yield* (ng)	150 ng	Time to Complete 10 Purifications	35 minutes

* Yield will vary depending on the type of blood processed

Dried Blood Spot DNA Isolation Kit Benefits

Fast and easy processing	Rapid spin-column format allows for the isolation of genomic DNA from dried blood spots in 35 minutes.
Isolate genomic DNA from various inputs	Genomic DNA can be isolated from the blood of various species, including humans.
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 PCR and Southern Blot analysis.

Dried Blood Spot DNA Isolation Kit

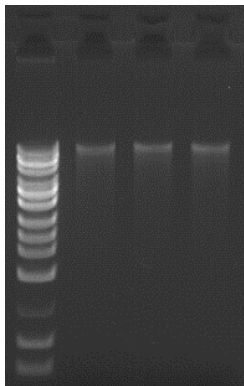


Figure 1. Genomic DNA Isolated from 3 x 3mm Diameter Circles. Blood collected on EDTA was applied to Whatman's 903 Protein Saver Card and allowed to dry for 1 week. DNA was isolated from 3 x 3 mm diameter circles per sample using Norgen's Dried Blood spot DNA Isolation Kit. Following isolation, 15 μ L from each 150 μ L elution was loaded on 1% TAE agarose gel. Norgen's Blood DNA Isolation Kit demonstrated a good DNA yield and integrity. The ladder corresponds to Norgen's UltraRanger 1kb DNA Ladder.

Kit Contents

1. Digestion Buffer B
2. Lysis Buffer B
3. Wash Solution WN
4. Wash Solution A
5. Elution Buffer B
6. Proteinase K
7. Micro Spin Columns
8. Collection Tubes
9. Elution Tubes
10. Product Insert

Customer-Supplied Reagents and Equipment

- 3 mm single-hole paper puncher
- Benchtop microcentrifuge
- Micropipettors
- 96 - 100% ethanol
- 56°C water bath or incubator
- 85°C water bath or incubator

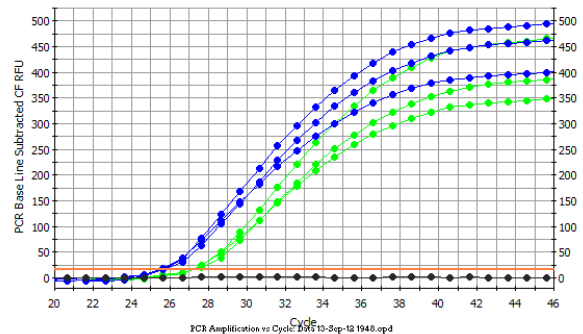


Figure 2. Purified DNA can be Amplified in a Real-time PCR (TaqMan) Reaction. Genomic DNA was isolated from 3 x 3mm diameter circles per sample using Norgen's Dried Blood Spot DNA Isolation Kit. Next, 3 μ L (green line) & 9 μ L (blue line) of the DNA from each of the 150 μ L elutions was used in a real-time 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, indicating that the DNA is of a high quality and can be used in sensitive downstream applications. The black line is a no-template control.

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
3600	Dried Blood Spot DNA Isolation Kit	50 preps