

Preserved Blood RNA Purification Kit I (for use with Tempus™ Blood RNA Tubes)

Norgen's Preserved Blood RNA Purification Kit I provides a rapid method for the isolation and purification of total RNA from blood that has been preserved using Tempus™ Blood RNA Tubes*. The kit purifies all sizes of RNA, from large mRNA and ribosomal RNA down to microRNA (miRNA) and small interfering RNA (siRNA). The RNA is preferentially purified from other cellular components such as proteins, without the use of phenol or chloroform.

Purification is based on spin column chromatography using Norgen's proprietary resin as the separation matrix. The RNA is preferentially purified from other cellular components such as proteins. The purified RNA is of the highest integrity, and can be used in a number of downstream applications including real time PCR, reverse transcription PCR, Northern blotting, RNase protection and primer extension, and expression array assays.



Tempus™ Blood RNA Tubes are not included with the kit

* Tempus™ is a registered trademark of Life Technologies.

Kit Specifications			
Maximum Column Binding Capacity	50 µg	Size of RNA Purified	All sizes
Time to Complete 10 Purifications	30 minutes	Average Yield	5 – 25 µg per 3 mL preserved human blood

Preserved Blood RNA Purification Kit I Benefits

Isolate a diversity of RNA species	All RNA species can be isolated, from large mRNA and ribosomal RNA down to microRNA (miRNA) and small interfering RNA (siRNA) (Figure 1).
Fast and easy processing	Rapid spin-column format allows for the processing of 10 samples in 30 minutes.
No phenol:chloroform extractions	Total RNA is isolated without the use of harmful chemicals such as phenol or chloroform.
Isolate high quality total RNA	Isolate inhibitor-free RNA that can be used directly in sensitive downstream applications including RT-qPCR.
Recovered RNA is suitable for downstream applications	Purified RNA can be used in a number of downstream applications including real-time PCR, reverse transcription PCR, Northern blotting, RNase protection and primer extension, and expression array analysis requiring the use of intact RNA.

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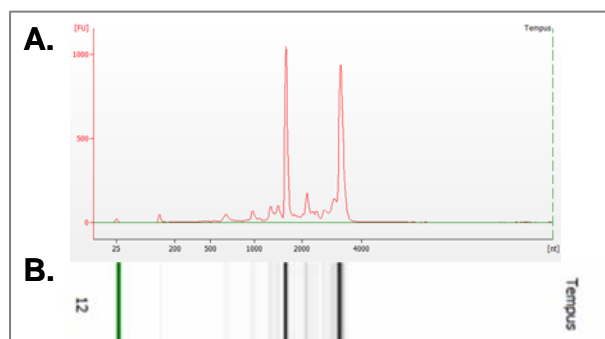


Figure 1. Isolate a Diversity of RNA Species

Total RNA was isolated from 3 mL hamster blood samples collected into Tempus™ RNA Blood Tubes using Norgen's Preserved Blood RNA Purification Kit I. The purified total RNA was then resolved on an Agilent® BioAnalyzer. Panel A shows the electropherogram from the Bioanalyzer, where the y axis represents fluorescence units and the x axis represents the runtime. The bands of the 18S and 28S rRNA fragments are clearly visible and the RNA integrity number score is 9.0. Panel B demonstrates the gel banding pattern of the RNA species purified from hamster blood. Abundant blood transcripts such as the globin mRNAs constitute the additional bands to the two major rRNA bands.

Preserved Blood RNA Purification Kit I Contents

1. Tempus™ Blood RNA Tube Diluent
2. Lysis Solution
3. Wash Solution
4. Elution Solution
5. Micro Spin Columns
6. Collection Tubes
7. Elution Tubes
8. User Manual

Shipping Conditions

The Preserved Blood RNA Purification Kit I is shipped at room temperature.

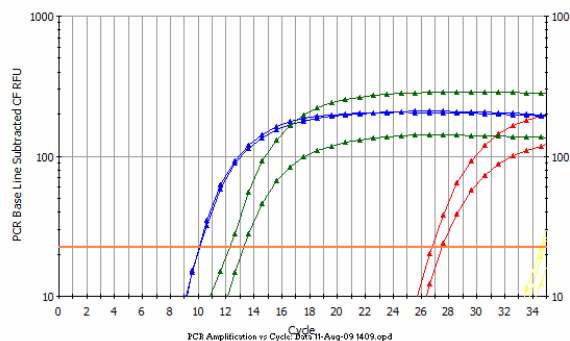


Figure 2. Isolation of Inhibitor-Free Total RNA

Total RNA was isolated from 3 mL hamster blood samples collected into Tempus™ RNA Blood Tubes using Norgen's Preserved Blood RNA Purification Kit. The purified total RNA was then used as the template in a RT-qPCR reaction. All sizes of RNA were successfully amplified including large RNA (Beta-Actin = green), small RNA, such as the 5S rRNA (blue) and microRNA, *miR-21* (red). No template control is shown in yellow.

Customer-Supplied Reagents and Equipment

- Benchtop microcentrifuge
- Swing bucket centrifuge
- 50 mL conical tubes
- 95 - 100% ethanol

Storage Conditions

All solutions should be kept tightly sealed and stored at room temperature. These reagents should remain stable for 1 year in their unopened containers.

Cat #	Description	Quantity
43400	Preserved Blood RNA Purification Kit I (for use with Tempus™ Blood RNA Tubes)	50 preps