

Leukocyte RNA Purification Kit

Norgen's Leukocyte RNA Purification Kit provides a rapid method for the isolation and purification of total leukocyte RNA from mammalian blood samples. Selective isolation of leukocyte RNA results in improved expression profiling and other downstream applications by removing the masking effects of some RNAs which are very abundant in whole blood, such as globin mRNAs. The purified RNA is of the highest quality and can be used in a number of downstream applications.



In this procedure the red blood cells are first removed from the sample through differential red blood cell lysis, and the leukocytes are recovered through centrifugation. The leukocytes are lysed, and purification of the leukocyte RNA is then based on spin column chromatography using Norgen's proprietary resin as the separation matrix. Norgen's resin binds RNA in a manner that depends on ionic concentrations. The RNA is preferentially purified from the other cellular components such as genomic DNA and proteins without the use of phenol or chloroform. The kit is able to isolate total leukocyte RNA, including all small RNA species.

Kit Specifications			
Column Binding Capacity	50 µg	Size of RNA Purified	All sizes
Maximum Column Loading Volume	600 µL	Time to Complete 10 Purifications	45 minutes
Maximum Blood Input	500 µL	Average Yield:	
Time to Complete 10 Purifications	10 µL	500 µL Human Blood	1.5 µg

Leukocyte RNA Purification Kit Benefits

Fast and easy processing	Rapid spin-column format allows for the processing of 10 samples in 45 minutes.
No phenol:chloroform extractions	Norgen's Leukocyte RNA Purification Kit isolates RNA without the use of harmful chemicals such as phenol or chloroform.
Isolate total leukocyte RNA	All leukocyte RNA species are isolated, from large mRNA down to microRNA.
Fractionate leukocytes from whole blood in minutes	Rapid removal of red blood cells from whole blood samples using differential red blood cell lysis.
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.

Leukocyte RNA Purification Kit

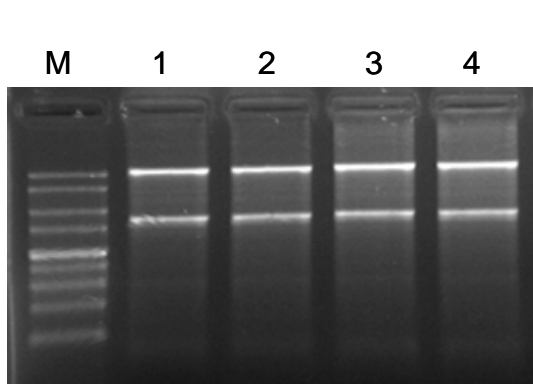


Figure 1. High Quality Total Leukocyte RNA

RNA isolated using Norgen's Leukocyte RNA Purification Kit is of the highest integrity and quality, with no degradation occurring. Leukocyte RNA was isolated from 250 μ L of rabbit blood from 4 different samples. Twenty microliters of each elution was then run on a 1.5% formaldehyde-agarose gel (Lanes 1 - 4). Lane M is Norgen's 1 kb RNA Ladder.

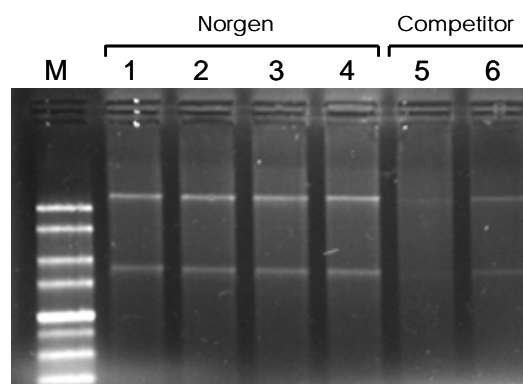


Figure 2. Higher RNA Yield than Competitor

Leukocyte RNA was isolated from 50 μ L samples of human blood using Norgen's Leukocyte RNA Purification Kit and a leading competitor's kit. Twenty microliters of each elution was then run on a 1.5% formaldehyde-agarose gel for analysis. Note the quality, consistency and yield of the RNA isolated using Norgen's kit (Lanes 1 - 4) as compared to RNA isolated using the competitor's kit (Lanes 5 and 6). Lane M is Norgen's 1 kb RNA Ladder.

Leukocyte RNA Purification Kit Contents

1. RBC Lysis Buffer
2. Binding Solution
3. Wash Solution
4. Elution Buffer
5. Micro Spin Columns
6. Collection Tubes
7. Elution Tubes
8. Product Insert

Customer-Supplied Reagents and Equipment

- Benchtop microcentrifuge
- β -mercaptoethanol
- 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.

Shipping Conditions

The Leukocyte RNA Purification Kit is shipped at room temperature.

Cat #	Description	Quantity
21200	Leukocyte RNA Purification Kit	50 samples