

RNA Clean-Up and Concentration Kit

Norgen's RNA Clean-Up and Concentration Kit is designed to clean-up and concentrate RNA (including miRNA) from TRIzol® and TRI Reagent®, enzymatic reactions, in vitro transcription, labelling reactions, etc. This is a robust kit for all clean-up and concentration purposes for up to 35 µg of RNA in solution. The purified RNA is of the highest purity and integrity, and can be used in a number of downstream applications.

The RNA Clean-Up and Concentration Kit purifies all sizes of RNA, from large mRNA and ribosomal RNA down to miRNA, siRNA and lncRNA. The kit elutes RNA in 20 µL for all types of downstream applications. For smaller elution volumes of 8 µL, please refer to the microspin column kits such as the RNA Clean-Up and Concentration Micro-Elute Kit for the highest concentration of RNA sample.



Kit Specifications	
Column Binding Capacity	35 µg
Maximum Amount of Starting Material	35 µg of RNA
Minimum Elution Volume	20 µL
Size of RNA Purified	All sizes
Average Recovery	≥ 90%
Time to Complete 10 Purifications	20 minutes

Features and Benefits	
Efficient clean-up from various enzymatic reactions	RNA clean-up from upstream enzymatic applications such as labeling, DNase treatment and in vitro transcription. Remove proteins, RNases, DNases, nucleotides, etc.
Clean-up and concentration of RNA isolated by different methods	RNA that has been isolated using various methods, including phenol-chloroform extractions or alcohol precipitations, can be processed with this kit.
Fast and easy processing	Rapid spin-column format allows for the processing of 10 samples in 20 minutes.
No phenol:chloroform extractions	Norgen's RNA Clean-Up and Concentration Micro Kit purifies RNA without the use of harmful chemicals such as phenol or chloroform.
Isolate all small RNA molecules	All small RNA species can be isolated including miRNA, siRNA, tRNA, and 5S rRNA.
Recovered RNA is suitable for downstream applications	Purified RNA can be used in a number of downstream applications including end-point or quantitative reverse transcription PCR, Northern blotting, RNase protection and primer extension, and expression array analysis.

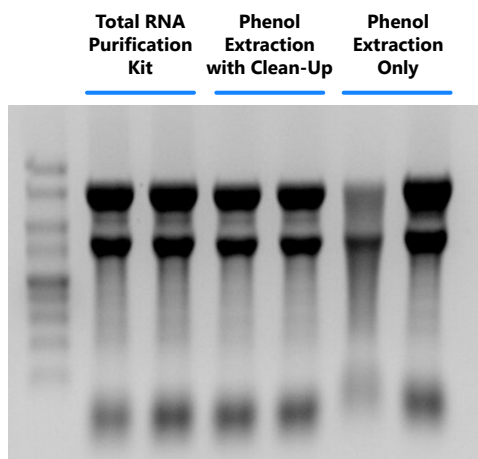


Figure 1. Effective Clean-Up to Produce High Quality Total RNA with Complete Size Diversity. Norgen's RNA Clean-Up and Concentration Kit effectively cleans up RNA isolated from phenol-based extractions without the loss of RNA diversity by retaining all RNA species including small RNAs. Total RNA was isolated from 5×10^8 *E. coli* using a competitor's phenol-based RNA extraction reagent. The resulting RNA was then purified using Norgen's RNA Clean-Up and Concentration Kit. As controls, total RNA was extracted using both Norgen's Total RNA Purification Kit (Cat. 17200, no phenol required) and the phenol-based RNA extraction reagent only without any clean-up. Resolution of 7 μ L of the 50 μ L purified RNA on a 1X MOPS, 1.5% formaldehyde-agarose gel showed the RNA extracted with phenol was successfully cleaned-up by Norgen's RNA Clean-Up and Concentration Kit without the loss of small RNA species.

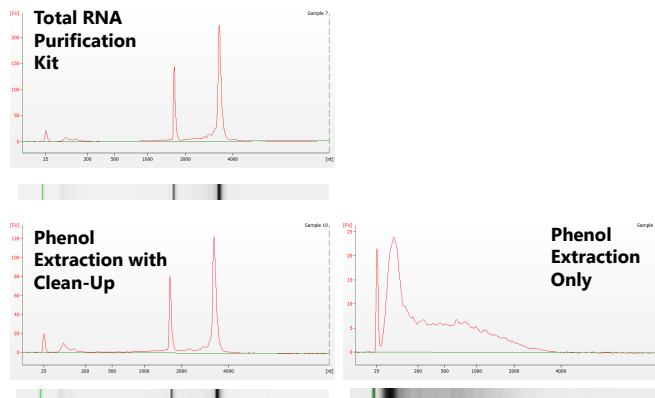


Figure 2. Effective Clean-Up to Produce High Quality Total RNA Compatible to Bioanalyzer Analysis. Total RNA was isolated from 0.75 million HeLa cells using a competitor's phenol-based RNA extraction reagent. The resulting RNA was then purified using Norgen's RNA Clean-Up and Concentration Kit. As controls, total RNA was extracted using both Norgen's Total RNA Purification Kit (#17200, no phenol required) or the phenol-based RNA extraction reagent only without clean-up. Resolution of 1 μ L of the 50 μ L purified RNA on an Agilent RNA Nano 6000 Chip showed that without clean-up, the RNA sample isolated using the phenol-based RNA extraction reagent only resolved poorly on a bioanalyzer. In contrast, RNA extracted with the phenol-based RNA extraction reagent followed by clean-up by Norgen's RNA Clean-Up and Concentration Kit resolved properly on the bioanalyzer showing excellent quality.

Kit Components	Cat. 23600	Cat. 43200
Buffer RL	40 mL	2 x 40 mL
Wash Solution A	38 mL	2 x 38 mL
Elution Solution A	6 mL	2 x 6 mL
Micro Spin Columns	50	100
Collection Tubes	50	100
Elution Tubes (1.7 mL)	50	100
Product Insert	1	1

Customer-Supplied Reagents and Equipment

- Benchtop microcentrifuge
- b-mercaptoethanol (Protocol A)
- 95-100% ethanol (Protocol A)
- 70% ethanol (Protocol B)

Storage Conditions

All solutions should be kept tightly sealed and stored at room temperature. These reagents should remain stable for at least 2 years in their unopened containers.

Cat #	Description	Size
23600	RNA Clean-Up and Concentration Kit	50 preps
43200	RNA Clean-Up and Concentration Kit	100 preps