

Total RNA Purification Micro Kit

Norgen's Total RNA Purification Micro Kit provides a rapid and sensitive method for the isolation and purification of total RNA from small input amounts of cultured animal cells, tissue samples, and microdissected samples including laser-capture microdissection (LCM). 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. 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.



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 without the use of phenol or chloroform.

Kit Specifications			
Column Binding Capacity	35 µg	Maximum Amount of Starting Material:	
Maximum Column Loading Volume	650 µL		Animal Cells 5 x 10 ⁵ cells
Minimum Elution Volume	20 µL	Animal Tissues*	3 mg
Size of RNA Purified	All sizes	Laser-Captured Microdissection (LCM)	Up to 5 x 10 ⁵ cells
Average RNA Yield:		Time to Complete 10 Purifications	20 minutes
HeLa Cells (1 x 10 ⁵ cells)	1.5 µg		

* Maximum recommended input of tissue varies depending on the type of tissue being used.

Total RNA Purification Micro Kit Benefits

Small elution volumes	The special design of the micro spin-column allows a small elution volume of as little as 20 µL.
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), without compromising total yield.
Fast and easy processing	Rapid spin-column format allows for the processing of 10 samples in 20 minutes.
No phenol:chloroform extractions	Total RNA is isolated without the use of harmful chemicals such as phenol or chloroform.
Ideal for small samples.	Isolate total RNA from small input amounts of cultured animal cells, tissue samples, and LCM samples. Total RNA has been isolated and detected from as little as a single animal cell.
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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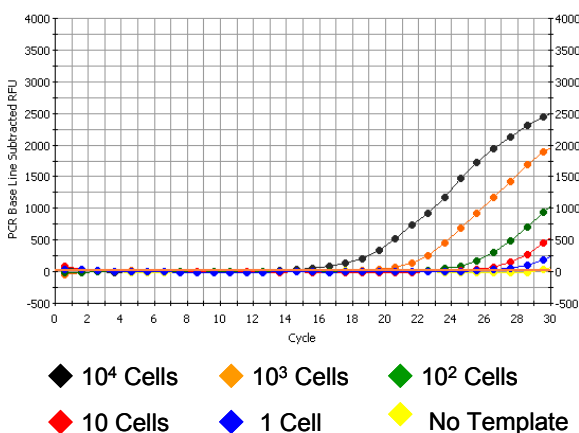


Figure 1. Great Isolation Sensitivity. Norgen's Total RNA Purification Micro Kit allows sensitive RNA extraction from as little as a single cell. Total RNA was extracted from a decreasing number of HeLa cells. Five μ L of the eluted RNA was used as the template in a 20 μ L RT-qPCR reaction to detect the human S14 transcript. The S14 was detected from as little as a single cell.

Total RNA Purification Micro Kit Contents

1. Wash Solution
2. Elution Solution
3. Lysis Solution
4. Micro Spin Columns
5. Collection Tubes
6. Elution Tubes
7. User Manual

Shipping Conditions

The Total RNA Purification Micro Kit is shipped at room temperature.

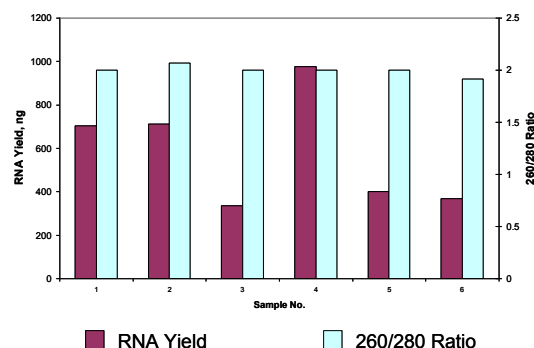


Figure 2. High Quality RNA Isolated from Laser-Captured Microdissection (LCM). Norgen's Total RNA Purification Micro Kit allows sensitive but high quality RNA extraction from small inputs such as Laser-Captured Microdissection (LCM). Total RNA was isolated from 6 different LCM samples. RNA yield and quality (260/280 ratio) were assessed by NanoVue spectrophotometry. Norgen's Total RNA Purification Micro Kit recovered good amounts of RNA with excellent 260/280 ratio.

Customer-Supplied Reagents and Equipment

- Benchtop microcentrifuge
- 95% ethanol
- β -mercaptoethanol
- PBS (Cultured cells)
- Mortar and pestle, liquid nitrogen, 70% ethanol (Tissue)
- Sterile, fine forceps, 42°C water bath, 70% ethanol (LCM)

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
35300	Total RNA Purification Micro Kit	50 preps