

Total RNA Purification Maxi Kit

Norgen's Total RNA Purification Maxi Kit provides a rapid method for the isolation and purification of total RNA from cultured animal cells, tissue samples, blood, bacteria, yeast, fungi, plants and viruses. 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 blot-



ting, 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	1.5 mg	Maximum Amount of Starting Material:	
Maximum Column Loading Volume	20 mL	Animal Cells	5 x 10 ⁷ cells
Size of RNA Purified	All sizes	Animal Tissues	50 - 250 mg
Time to Complete 4 Purifications	40 minutes	Blood	2 - 10 mL
Average RNA Yield:		Bacteria	2.5 x 10 ¹⁰ cells
HeLa Cells (5 x 10 ⁷ cells)	750 µg	Yeast	2 x 10 ⁸ cells
<i>E. coli</i> (2.5 x 10 ¹⁰ cells)	1.5 mg	Fungi	1 g
		Plant Tissues	1 g

Total RNA Purification Maxi Kit 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)
Fast and easy processing	Rapid spin-column format allows for the processing of 4 samples in under 40 minutes.
No phenol:chloroform extractions	Total RNA is isolated without the use of harmful chemicals such as phenol or chloroform.
Isolate total RNA from a wide variety of sources	Isolate total RNA from cultured animal cells, tissue samples, blood, bacteria, yeast, fungi, plants and viruses.
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.

Total RNA Purification Maxi Kit

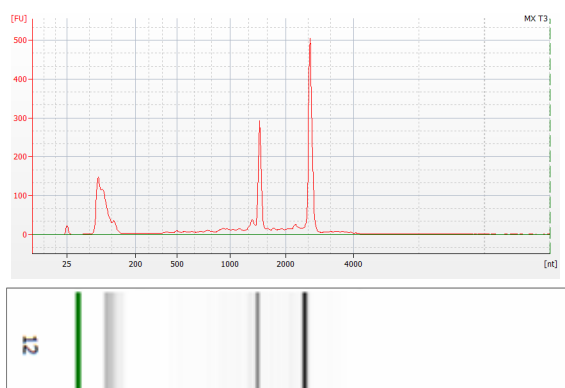


Figure 1. Isolate a Diversity of RNA Species

Total RNA was isolated from 10 mL of an overnight *E. coli* culture using Norgen's Total RNA Purification Maxi Kit. One microliter of the 2 mL elution was analyzed on an Agilent® 2100 BioAnalyzer RNA Nano 6000 chip. As it can be seen, high quality total RNA was isolated with minimal degradation. As well, a large amount of small RNA (<200 nt) was recovered, indicating that the kit is able to isolate a diversity of RNA species.

Total RNA Purification Maxi Kit Contents

1. Buffer RL
2. Wash Solution A
3. Elution Solution A
4. RNA Maxi Spin Columns
5. (with collection tubes)
6. Elution tubes (50 mL)
7. Product Insert

Shipping Conditions

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

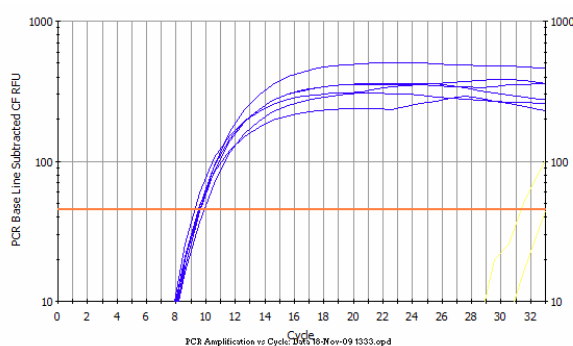


Figure 2. Good Amplification and Consistency of Isolation

Norgen's Total RNA Purification Maxi Kit was used to isolate total RNA from six different overnight samples of *E. coli* (10 mL samples). One microgram of each sample was then used as the template in an RT-qPCR reaction using 16s rRNA primers specific to *E. coli*. As it can be seen, the RNA was detected and successfully amplified in all cases. Furthermore, all samples showed a similar C_T value, indicating consistent isolation.

Customer-Supplied Reagents and Equipment

- Centrifuge with a swinging bucket rotor
- 95% ethanol
- β-mercaptoethanol
- Mortar and pestle, liquid nitrogen, 70% ethanol (Tissue, fungi, plant)
- TE Buffer and lysozyme (Bacteria)
- Resuspension buffer with lyticase (Yeast)

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
26800	Total RNA Purification Maxi Kit	8 preps