Total RNA Purification 96-Well Kit

Norgen's Total RNA Purification 96-Well Kit provides a rapid method for the high-throughput isolation and purification of total RNA from cultured animal cells, small tissue samples, blood, bacteria, yeast, fungi and plants. The kit purifies all sizes of RNA, from large mRNA and ribosomal RNA down to microRNA (miRNA) and small interfering RNA (siRNA), without the use of phenol or chloroform.

Purification is based on 96-well 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.

Kit Specifications

Binding Capacity Per Well	50 µg	Maximum Amount of Starting Material:	
Maximum Loading Volume Per Well	500 µL	Animal Cells	1 x 10^6 cells
Size of RNA Purified	All sizes, including <200nt	Animal Tissues	10 mg
		Blood	100 µL
Time to Complete 96 Purifications	30 minutes	Bacteria	1 x 10^9 cells
Average RNA Yield:		Yeast	1 x 10^8 cells
HeLa Cells (1 x 10^6 cells)	15 µg	Fungi	40 mg
E. coli (1 x 10^9 cells)	50 µg	Plant Tissues	40 mg

Total RNA Purification 96-Well Kit Benefits

Isolate total RNA from a diversity of species	RNA can be isolated from cultured animal cells, small tissue samples, blood, bacteria, yeast, fungi and plants (Figure 1).
Isolate a diversity of RNA species	All sizes of RNA can be isolated, from large mRNA and ribosomal RNA down to microRNA (miRNA) and small interfering RNA (siRNA) (Figure 2).
No phenol:chloroform extractions	Total RNA, including all small RNA species, is isolated without the use of harmful chemicals such as phenol or chloroform.
Isolate total RNA from very small samples	Total RNA has been isolated and detected from as little as a single animal cell (Figure 3).
Fast and easy processing	96-Well Plates can be rapidly processed in 30 minutes using either a vacuum manifold or centrifugation format.
Recovered RNA is suitable for many 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 96-Well Kit

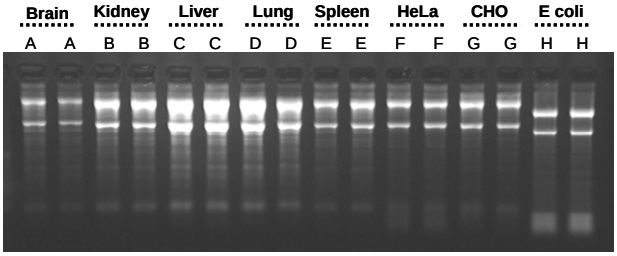

Figure 1. Isolate Total RNA from a Diversity of Species. Total RNA was isolated from 8 mg of brain (Lanes A), kidney (Lanes B), liver (Lanes C), lung (Lanes D) and spleen tissue (Lanes E), 7.5 x 10^5 HeLA (Lanes F) and CHO cells (Lanes G), and 5 x 10^8 bacteria (Lanes H) using Norgen's Total RNA Purification 96-Well Kit. From observing the formal-dehyde-agarose gel, it can been seen that Norgen's kit can be used to successfully isolate total RNA, including small RNA species, from a broad range of sample types.

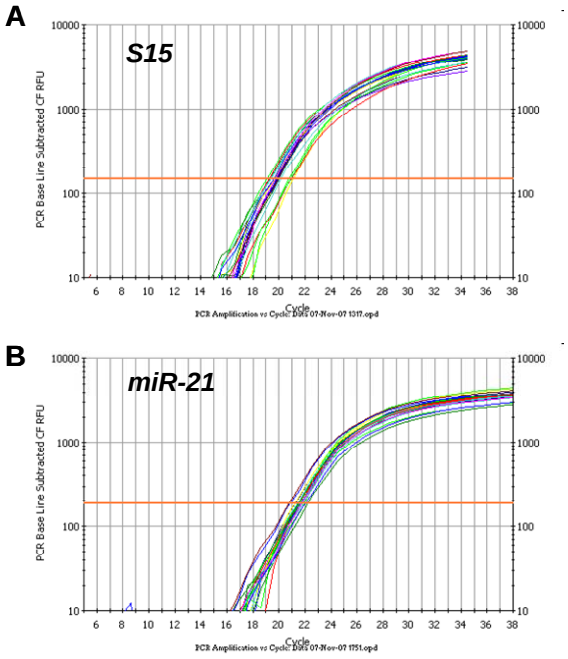

Figure 2. Consistent Isolation of Total RNA, Including microRNA
Total RNA was isolated from samples of 5 x 10^5 HeLa cells using Norgen's Total RNA Purification 96-Well Kit. Aliquots of each total RNA sample were then used in 2 different RT-qPCR reaction. In the first RT-qPCR the S15 gene of mRNA was amplified (Panel A), and in the second RT-qPCR reaction the miR-21 microRNA was amplified (Panel B). Both the mRNA and microRNA were amplified in a consistent manner from all the samples, with low variability of the C_T values. Thus both types of RNA are being consistently isolated using this kit.

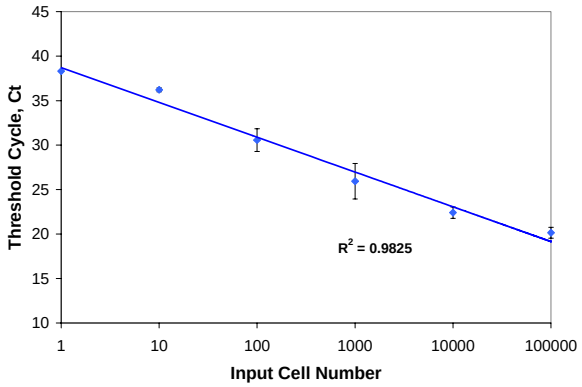

Figure 3. Sensitive RNA Isolation to <10 Cells
RT-qPCR was used to detect mRNA isolated from various input amounts of HeLa cells using Norgen's Total RNA Purification 96-Well Kit. The primers used for the RT-qPCR detected the S15 gene. Total RNA was isolated and detected linearly from as little as a single HeLa cell.

Shipping Conditions
The Total RNA Purification 96-Well Kit is shipped at room temperature.

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
24300	Total RNA Purification 96-Well Kit	192 preps (2 plates)

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