

RNA/Protein Purification 96-Well Kit

Norgen's RNA/Protein Purification 96-Well Kit provides a rapid method for the high throughput isolation and purification of total RNA and total proteins simultaneously from a single sample of cultured animal cells, tissues, blood, bacteria, yeast or fungi. Purification is performed with 96-well plates using either a vacuum manifold or centrifugation. The simultaneous isolation of the RNA and proteins from the same sample not only saves time, but will also be of a great benefit when isolating RNA and proteins from precious, difficult to obtain or very small samples. Furthermore, gene expression analysis will be more reliable since the RNA and proteins are derived from the same sample, therefore eliminating inconsistent results and variability. In addition, the kit can also be used for the simultaneous isolation of genomic DNA and proteins from a single sample.



With Norgen's RNA/Protein Purification 96-Well Kit, the purification is based on 96-well column chromatography using Norgen's proprietary resin as the separation matrix. Norgen's resin binds nucleic acids in a manner that depends on ionic concentrations, thus the RNA will bind to the resin while the proteins are removed in the flowthrough. After the RNA is washed and eluted from the plate, the plate is then used to purify the proteins that are present in the flowthrough. Norgen's kit purifies all sizes of RNA, from large mRNA and ribosomal RNA down to microRNA (miRNA) and small interfering RNA (siRNA). The purified RNA is of the highest integrity, and can be used in a number of downstream applications. The purified proteins can also be used in a number of different downstream applications.

Kit Specifications			
Column Binding Capacity (RNA)	50 µg	Average Yield:	
Column Binding Capacity (Protein)	150 µg	HeLa Cells (1 x 10 ⁶ cells)	15 µg RNA
Maximum Loading Volume per Well	500 µL	HeLa Cells (1 x 10 ⁶ cells)	150 µg protein
Size of RNA Purified	All sizes	Liver (5 mg)	12.5 µg RNA
Time to Complete 10 Purifications	25 minutes	Liver (5 mg)	55 µg protein

RNA/Protein Purification 96-Well Kit Benefits

Complete purification	The RNA and proteins are all purified using the same 96-well plate.
Reduce variability	RNA and proteins are isolated from a single sample with no splitting of the lysate, thus reducing inconsistent results and variability.
Isolate from small samples	Simultaneous isolation of RNA and protein from a single sample. Ideal for precious, difficult to obtain or small samples such as biopsy material or single foci from cell cultures.
Rapid procedure	Isolate total RNA and total proteins from a single sample in < 25 minutes.
Isolate a diversity of RNA species	All sizes of RNA are isolated, from large mRNA down to microRNA
Process a wide range of sample types	Isolate total RNA and proteins from cultured animal cells, tissue, blood, bacteria, yeast, plant and fungi

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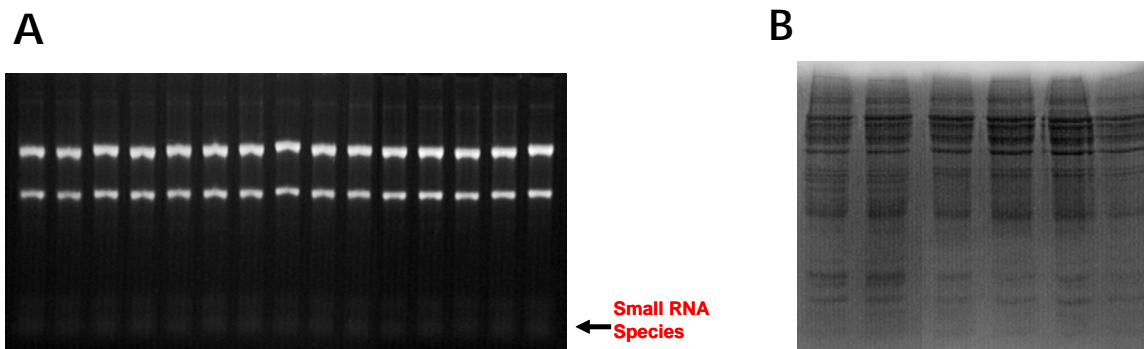


Figure 1. Simultaneous Isolation of RNA and Proteins from HeLa cells.

Total RNA and total proteins were isolated simultaneously from 5×10^5 HeLa cells using Norgen's kit. Panel A is a 1.2% formaldehyde agarose gel showing the total RNA. All 15 replicates showed both high yield and high quality, and all replicates showed effective recovery of all sizes of RNA including the small RNA (arrow). Panel B is a 10% SDS-PAGE gel containing the total proteins that were isolated from 6 of the flow-through samples in Panel A. In each case, 10 μ L out of the elutions was loaded. The proteins are consistent in yield, intact and of the highest quality, and can therefore be used in a number of different downstream applications.

RNA/Protein Purification 96-Well Kit Contents

1. Lysis Solution
2. Wash Solution
3. Elution Solution
4. Protein Wash Buffer
5. Protein pH Binding Buffer
6. Protein Elution Buffer
7. Protein Neutralizer
8. Protein Loading Dye
9. 96-Well Filter Plate
10. Adhesive Tape
11. 96-Well Collection Plate
12. 96-Well Elution Plate
13. Product Insert

Customer-Supplied Reagents and Equipment

- Vacuum manifold or centrifuge with rotor for 96-well plate assembly
- 95% ethanol
- Isopropanol
- β -mercaptoethanol
- RNase-free DNase I (optional)
- Mortar and pestle, liquid nitrogen (Tissue, Fungi, Plant)
- TE Buffer and lysozyme (Bacteria)
- Resuspension buffer with lyticase (Yeast)
- 70% ethanol (Tissue, Fungi, Plant)

Shipping Conditions

The RNA/Protein Purification 96-Well Kit is shipped at room temperature.

Storage Conditions

All solutions should be kept tightly sealed and stored at room temperature. All the reagents should remain stable for at least 1 year in their unopened containers.

Cat #	Description	Quantity
37900	RNA/Protein Purification 96-Well Kit	192 samples