RNA/Protein Purification Plus Kit

Norgen's RNA/Protein Purification Plus Kit provides a rapid method for the isolation and purification of total RNA and proteins sequentially from a single sample of cultured animal cells, tissue samples, blood, bacteria, yeast, fungi or plants. The total RNA and proteins are all column purified in less than 30 minutes. This kit allows for rapid, efficient, non-enzymatic removal of contaminating DNA using the provided gDNA Removal Columns. The kit is ideal for researchers who are interested in studying the genome, proteome and transcriptome of a single sample, such as for studies of microRNA profiling, gene expression including gene silencing experiments or mRNA knockdowns, studies involving biomarker discovery, and for characterization of cultured cell lines. Norgen's RNA /Protein Purification Plus Kit is especially useful for researchers who are isolating macromolecules from precious, difficult to obtain or small samples such as biopsy materials or single foci from cell cultures, as it eliminates the need to fractionate the sample. Furthermore, analysis will be more reliable since the RNA and proteins are derived from the same sample, thereby eliminating inconsistent results. The purified macromolecules are of the highest purity and can be used in a number of different downstream applications.

Kit Specifications			
Column Binding Capacity (RNA)	50 µg	Average Yield:	
Column Binding Capacity (Protein)	200 µg	HEK 293 Cells (1 x 10^6 cells)	10 -15 µg RNA
Maximum Column Loading Volume	650 µL	HEK 293 Cells (1 x 10^6 cells)	70 - 100 µg protein
Size of RNA Purified	All sizes	Liver (15 mg)	30 - 35 µg RNA
Time to Complete 10 Purifications	30 minutes	Liver (15 mg)	100 - 150 µg protein

RNA/Protein Purification Plus Kit Benefits	
Complete column purification	The RNA and proteins are all column purified using the same column.
Efficient genomic DNA removal	Non-enzymatic, rapid removal of genomic DNA using a gDNA Removal Column
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 < 30 minutes.
Isolate a diversity of RNA species	All sizes of RNA are isolated, from large mRNA down to microRNA

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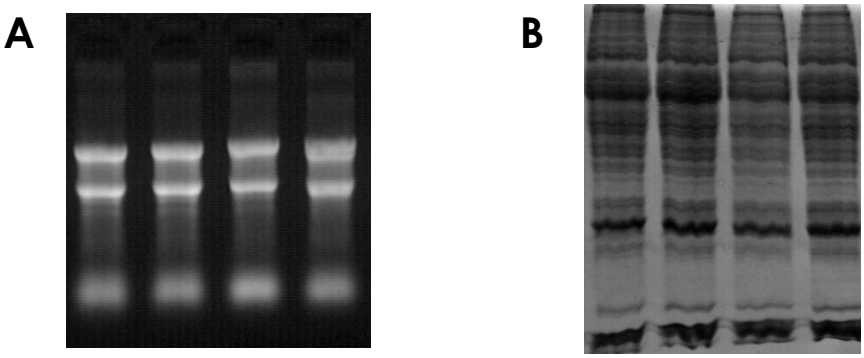

Figure 1. Recovery of True Total RNA and High Quality Proteins from Hamster Liver
Total RNA (Panel A) and proteins (Panel B) were isolated from 10 mg hamster liver samples using Norgen's RNA/Protein Purification Plus Kit. The kit isolated both large RNA (represented by the 28S and 18S rRNA) as well as many small RNA species with a high integrity, as can be seen in the 1X MOPS 1% agarose gel in Panel A. Panel B is a 12% SDS-PAGE gel showing the total proteins isolated from the liver samples. The proteins are eluted into a buffer which is compatible with many downstream applications including mass spectrometry as well as standard protein quantification methods (including Bradford assays). In contrast, most competing multiple analyte isolation products require protein precipitation and the precipitated proteins are required to be resuspended in buffer with high-detergent content (such as SDS-PAGE loading dye) for full recovery.

RNA/Protein Purification Plus Kit Contents

1. Buffer SK
2. Wash Solution A
3. Elution Solution A
4. Wash Solution C
5. Binding Buffer A
6. Elution Buffer C
7. Protein Neutralizer
8. Protein Loading Dye
9. gDNA Removal Columns
10. RNA/Protein Purification Columns
11. Collection Tubes
12. Elution tubes (1.7 mL)
13. Product Insert

Shipping Conditions
The RNA/Protein Purification Plus Kit is shipped at room temperature.

Customer-Supplied Reagents and Equipment

- Benchtop microcentrifuge
- 96-100% ethanol
- DL-Dithiothreitol (DTT
- β-mercaptoethanol (optional)
- Mortar and pestle, liquid nitrogen (Tissue, Fungi, Plant)
- TE Buffer and lysozyme (Bacteria)
- Resuspension buffer with lyticase (Yeast)
- 70% ethanol (Tissue, Fungi, Plant)

Storage Conditions
All solutions should be kept tightly sealed and stored at room temperature. These reagents should remain stable for at least 1 year in their unopened containers. The Protein Loading Dye should be stored at -20°C after the addition of DL-Dithiothreitol (DTT).

Cat #	Description	Quantity
48200	RNA/Protein Purification Plus Kit	50 samples

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