RNA/DNA Purification Micro Kit

Norgen's RNA/DNA Purification Micro Kit provides a rapid method for the isolation and purification of total RNA and genomic DNA sequentially from a single sample of cultured animal cells, tissue samples (particularly hard-to-extract fibrous tissues) or blood. The total RNA and genomic DNA are both column purified in less than 30 minutes. The purified RNA and DNA fractions can be eluted in as little as 20 mL. This kit is ideal for researchers who are interested in studying the genome 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/DNA Purification Micro 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 DNA 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	35 µg for RNA 10 µg for DNA	Maximum Amount of Starting Material: Animal Cells Animal Tissues Blood	 5 x 10^5 cells 5 mg (for most tissues) 50 µL
Maximum Column Loading Volume	650 µL	Time to Complete 10 Purifications	30 minutes
Size of RNA Purified	All sizes, including small RNA (< 200 nt)	Average Yields* Liver (5 mg) Liver (5 mg)	 10-12 µg RNA 1-2 µg DNA

RNA/DNA Purification Micro Kit Benefits	
Complete column purification	The RNA and DNA are all column purified using the same column.
Small elution volume	Both RNA and DNA fractions can be eluted in as little as 20 µL, resulting in a higher concentration of nucleic acids
Reduce variability	RNA and DNA are isolated from a single sample with no splitting of the lysate, thus reducing inconsistent results and variability.
Isolate from small samples	Sequential isolation of RNA and DNA from a single sample. Ideal for precious, difficult to obtain or small samples such as biopsy material or single foci from cell cultures.
Isolate from hard-to-extract samples	Proteinase K is provided for hard-to-extract fibrous tissue samples
Isolate a diversity of RNA species	All sizes of RNA are isolated, from large mRNA down to microRNA

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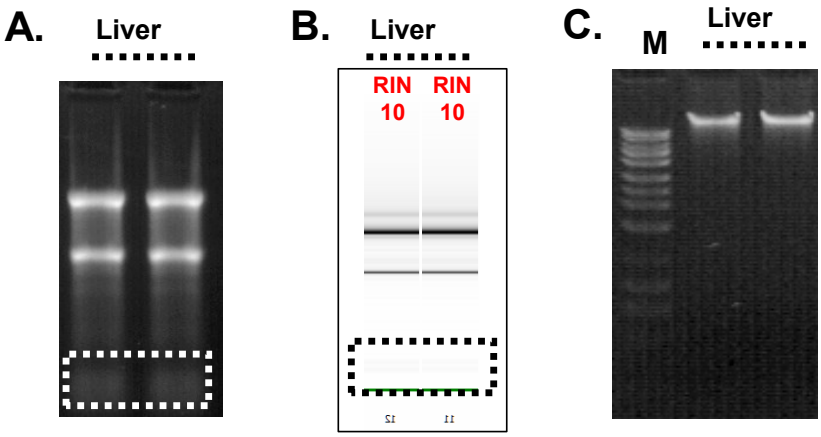


Figure 1. Recovery of True Total RNA and High Quality DNA from Hamster Liver
Total RNA and gDNA were isolated from 10 mg samples of hamster liver using Norgen's RNA/DNA Purification Micro Kit. **Panel A** is a 1X MOPS 1% agarose gel showing the RNA that was isolated, and it can be seen that the kit isolated large RNA (represented by 28S and 18S rRNA) with high integrity. Moreover, it provided the added benefit of recovering small RNA without any additional protocols. **Panel B** is a result from a bioanalyzer resolution of the eluted RNA, clearly showing that both the large and small RNA species were isolated. **Panel C** is a 1% agarose gel showing the gDNA isolated from the hamster liver samples. Lane M is Norgen's HighRanger 1 kb DNA Ladder and the sample lanes contain 10 µL of each of the 100 µL elutions. The gel shows high quality, and intact genomic DNA.

RNA/DNA Purification Micro Kit Contents

1. Lysis Buffer Q
2. Wash Solution A
3. Elution Solution A
4. Elution Buffer F
5. gDNA Purification Micro Columns
6. RNA Purification Micro Columns
7. Collection Tubes
8. Elution Tubes (1.7 mL)
9. Product Insert

Shipping Conditions
The RNA/DNA Purification Micro Kit is shipped at room temperature.

Customer-Supplied Reagents and Equipment

- Benchtop microcentrifuge
- 96-100% ethanol
- β-mercaptoethanol (optional)
- Mortar and pestle, liquid nitrogen (Tissue)
- PBS (Animal cells)

Storage Conditions
Store Proteinase K at 4 °C. All other 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
50300	RNA/DNA Purification Micro Kit	50 samples

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