

RNA/DNA/Protein Purification Products from MACHEREY-NAGEL



RNA/DNA/Protein Mini spin kit

Maximum output – in one procedure

NucleoSpin® TriPrep

BIOKÉ
sharing knowledge

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Simultaneous extraction of

Total RNA

Genomic DNA

Total protein

from one unsplit sample

One Prep – Three results!

NucleoSpin® TriPrep

Parallel isolation of RNA, DNA, and protein for most significant gene expression profiling

► One Prep – Three results

Total RNA of superior quality – for reliable RT-PCR and all common downstream applications
 Genomic DNA of high purity – ready-to-use for e.g. PCR, sequencing, restriction enzyme digestion
 Total protein in high recovery – directly suitable for quantification, SDS-PAGE, and Western blot analysis

► Rely on your experiments

RNA/DNA/protein extracted from one unsplit sample – direct correlation – no variations

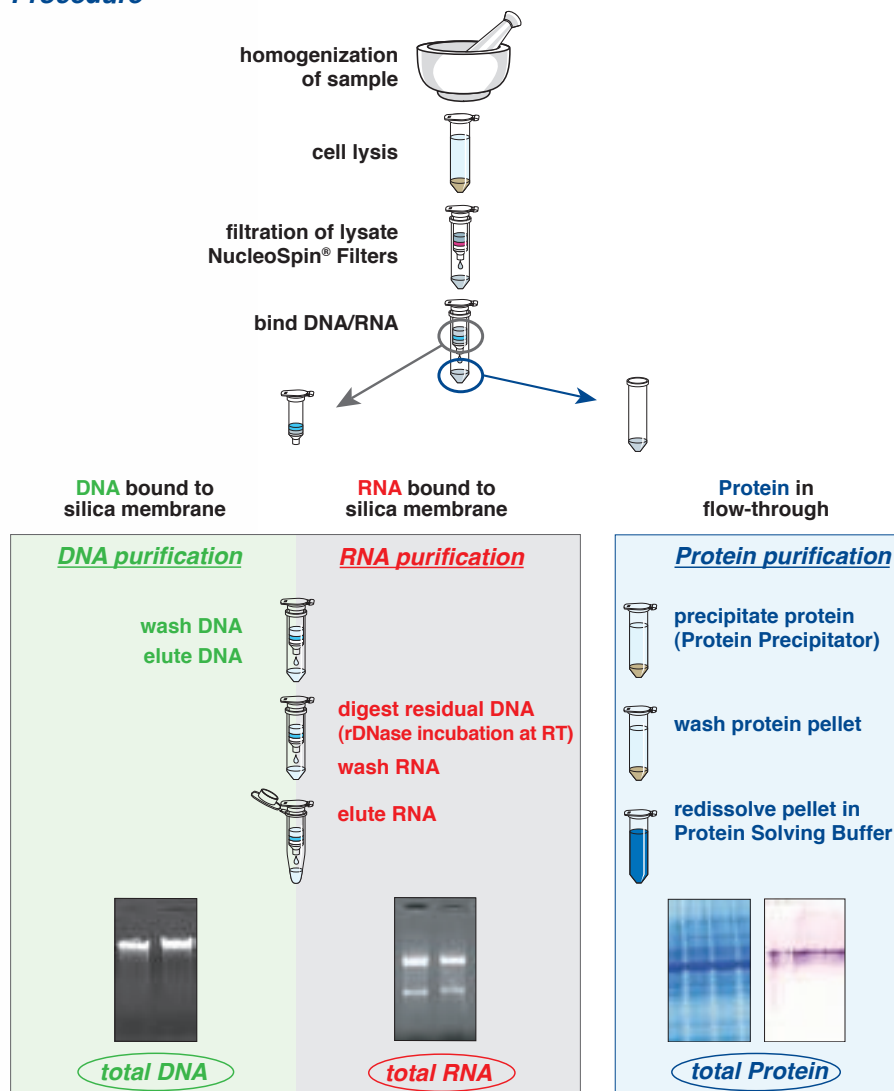
► Save your time

Parallel isolation of RNA, DNA, and protein within one hour

► Save precious sample material

Maximum output – isolate three analytes from one sample
 High sensitivity – ideal for small and limited samples

Procedure



Product at-a-glance

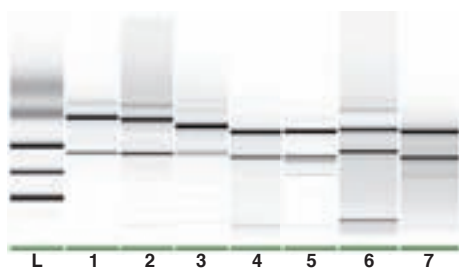
| | | |
|---------------------------------|--|--------------------------|
| Technology | Silica-membrane technology | |
| Sample material | $\leq 5 \times 10^6$ cells ≤ 30 mg human/animal tissue ≤ 100 mg plant tissue | |
| Typical yield | DNA | $\leq 6 \mu\text{g}$ |
| | RNA | $\leq 70 \mu\text{g}$ |
| | Protein | $\leq 1,200 \mu\text{g}$ |
| Typical Ratio A_{260}/A_{280} | DNA | 1.7 – 1.9 |
| | RNA | 1.9 – 2.1 |
| Preparation time | RNA/DNA/protein | $\sim 60 - 75$ min |
| | RNA/DNA | ~ 45 min |
| | Protein | ~ 35 min |



Application data

RNA/DNA/protein extraction from a large variety of starting materials

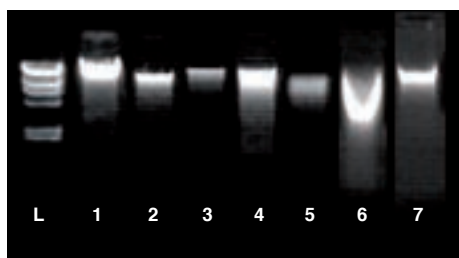
RNA, DNA, and protein were isolated in parallel from the same source. The range of starting materials covers tissues, cells, plant materials, yeast, and bacteria.



Total RNA of high structural integrity

RNA was eluted in 50 μl RNase-free H_2O . The RNA integrity number (RIN) was measured for all mammalian samples. RIN was 9.5 for HeLa cell RNA and 8.9 for mouse liver RNA.

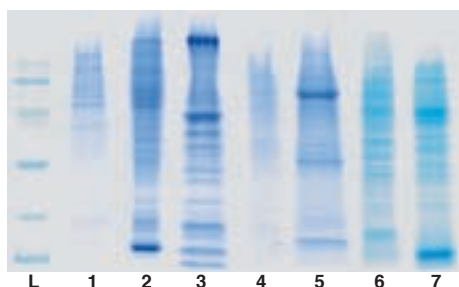
RNA analyzed on Agilent 2100 Bioanalyzer/RNA 6000 Nano Kit*
 Lane L: RNA Ladder (RNA 6000 Nano Marker; Agilent), Lanes 1-7: see table below



Total DNA of high molecular weight and purity

DNA was eluted in 100 μl DNA Elute buffer. A_{260}/A_{280} ratios are in the range of 1.81 – 1.94.

DNA analyzed on 1% TAE agarose gel electrophoresis*
 Lane L: DNA Ladder (Lambda DNA/HindIII; Fermentas), Lanes 1-7: see table below



Total Protein in high recovery

Extracted proteins were solved in Protein Solving Buffer. The proteins are ready to use in SDS-PAGE analysis, as well as for western blotting.

Total Protein analyzed on SDS-PAGE*
 Lane L: Protein ladder (low molecular weight marker; GE), Lanes 1-7: see table below

| Sample Material | Sample Amount | Lane |
|--------------------|---------------|------|
| Human cells (HeLa) | 10^6 cells | 1 |
| Mouse liver | 3 mg | 2 |
| Fish (Zebrafish) | 1 larvae | 3 |
| Plant root | 100 mg | 4 |
| Plant leave | 100 mg | 5 |
| Yeast | 10^8 cells | 6 |
| Bacteria | 10^9 cells | 7 |

**High quality RNA, DNA, and protein
from the same source**

**Perfectly suitable for
gene expression profiling**

* Figures are compiled from different gels and runs, aligned to the corresponding length markers

Also available:

Protein Quantification Assay

Sensitive, fast, and convenient assay for protein quantification

► **Compatible with reducing agents and detergents**

Excellent interoperability with Laemmli buffer and other buffers containing SDS, reducing agents, dyes
Perfect in combination with NucleoSpin® TriPrep and NucleoSpin® RNA/Protein

► **Timesaving and easy-to-use**

Quantification results in only 40 min
Protocols for microplates, microcuvettes, semi-microcuvettes, and low volume photometers

► **Accurate and reliable**

Protein concentration down to 0.001 µg/µl
Correlation coefficient of 0.97 – 1.00



Protein quantification made easy!

Ordering information

| Product | Preps | Cat. No. |
|--|-----------|--------------------|
| Mini spin columns NucleoSpin® TriPrep* Mini spin kit for the simultaneous isolation of total RNA, genomic DNA, and total protein from a wide variety of unsplit samples. | 10/50/250 | 740966.10/.50/.250 |
| Buffers and reagents Protein Quantification Assay Buffers and reagents for the quantification of proteins. Compatible with detergents and reducing agents. Reference protein BSA included. | 50/250 | 740967.50/.250 |

Related product

| | | |
|---|-----------|--------------------|
| Mini spin columns NucleoSpin® RNA II Mini spin kit for the isolation of total RNA. Including rDNAse and shredders. | 10/50/250 | 740955.10/.50/.250 |
| Mini spin columns NucleoSpin® RNA/Protein Mini spin kit for the simultaneous isolation of total RNA and Protein from unsplit samples. Including rDNAse and shredders. | 10/50/250 | 740933.10/.50/.250 |
| Mini spin columns – XS design NucleoSpin® RNA XS Mini spin kit for the isolation of highly concentrated total RNA from extremely small amount of starting material. Elution down to 5 µl. | 10/50/250 | 740902.10/.50/.250 |
| Buffer set NucleoSpin® RNA/DNA Buffer set* Buffer set for the simultaneous isolation of RNA and DNA from unsplit samples. To be used in combination with NucleoSpin® RNA II, NucleoSpin® RNA Plant, NucleoSpin® RNA/Protein kits. | 100 | 740944 |

Visit www.mn-net.com/bioanalysis for detailed information

Your local distributor:

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NucleoSpin® TriPrep

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