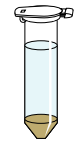


Optimized DNase I digest by use of MDB

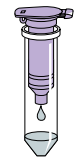
DNA removal you can see NucleoSpin® RNA II

Features / Applications NucleoSpin® RNA II

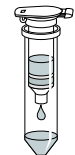
- ✓ **NucleoSpin® Filters included** for homogenization and reduction of lysate viscosity
- ✓ **MDB (Membrane Desalting Buffer) included** for optimized DNase I digest
- ✓ **DNase I included** for removal of genomic DNA
- ✓ average yield: up to 70 µg ready-to-use total RNA
- ✓ purity $A_{260/280}$: 1.9-2.1
- ✓ binding capacity: 100 µg RNA
- ✓ elution volume: 40 - 120 µl (default volume: 60 µl)
- ✓ time/prep: < 30 min/6 preps
- ✓ RNA from up to 5 x 10⁶ cultured cells
30 mg tissue
- ✓ RNA suitable for all common downstream applications,
e.g. RT-PCR, TaqMan analysis, blotting, or microarray analysis



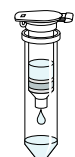
lysis



homogenization
by filtration
(NucleoSpin® Filter)

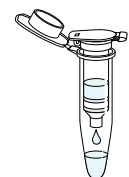


binding



MDB-wash
DNase I incubation
directly on the
membrane at RT

washing



elution

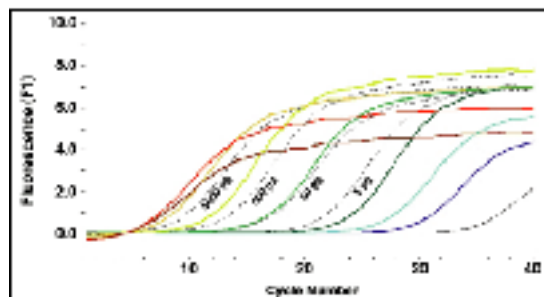


RT-PCR, Northern blotting, array technology,
RNase protection assays, primer extension

Accurate RT-PCR results

Total RNA from the indicated numbers of HeLa cells has been purified according to the standard protocol and was detected by RT-PCR (2 µl of the 100 µl eluate, primers specific for GAPDH). Even from very small amounts of cells amplifiable RNA was isolated.

— 2 x 10⁶ cells, — 1 x 10⁶ cells, — 1 x 10⁵ cells,
— 1 x 10⁴ cells, — 1,000 cells, — 100 cells, — 10 cells,
— 1 cell, — water. Standards: gDNA (amount as indicated).



Even from as little as 10 cells RT-PCR detectable RNA can be isolated.

DNA removal you can see

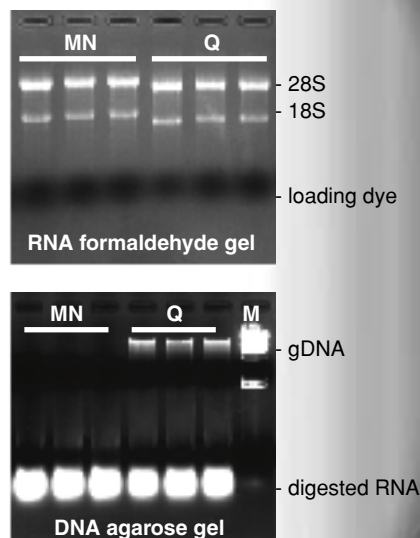
A: Total RNA was purified from 10^6 HeLa cells using the NucleoSpin® RNA II kit in comparison to competitor Q. 10 µl of each eluate (elution volume 50 µl) were analyzed on a 1.2 % formaldehyde gel. The $A_{260/280}$ was on average 2.1.

Due to a lower detection sensitivity of genomic DNA in a denaturing formaldehyde gel contaminating genomic DNA is often not visible.

B: For visualization of residual genomic DNA 10 µl of each eluate were treated with RNase A and subsequently loaded onto a 1% TAE agarose gel. The NucleoSpin® RNA II kit contains DNase I for on-column digestion.

M: λ HindIII, MBI-Fermentas

Optimized DNase I treatment eliminates genomic DNA in NucleoSpin® RNA II preparations whereas a clear distinct band of contaminating genomic DNA is visible in RNA samples prepared with a kit of competitor Q.



Related RNA Purification Kits

- NucleoSpin® RNA L** midi spin columns for isolation of up to 400 µg of total RNA from up to 200 mg tissue or 5×10^7 cells, **NucleoSpin® Filters L included, DNase I included, MDB included**
- NucleoSpin® 8/96 RNA** fully automatable 8-well or 96-well system for isolation of up to 100 µg total RNA (centrifuge processing) from up to 40 mg tissue or 1×10^7 cells, **DNase I included**, NucleoSpin® 96 RNA Filter Plate available separately
- NucleoSpin® RNA Plant** mini spin columns for isolation of up to 70 µg of total RNA from up to 100 mg plant tissue, **two alternative lysis buffers included** for optimal processing of a large variety of plant species, **NucleoSpin® Filters included, DNase I included, MDB included**
- NucleoTrap® mRNA** oligo(dT) latex beads for isolation of up to 40 µg mRNA from about 1000 µg total RNA (refers to midi kit)

Ordering Information

Product	Preps	Specification	Cat. No.
NucleoSpin® RNA II	20 / 50 / 250	mini spin columns	740955.20 / .50 / .250
NucleoSpin® RNA L	20	midi spin columns	740962.20
NucleoSpin® 8 RNA	12 / 60 x 8	8-well strips	740698 / .5
NucleoSpin® 96 RNA	2 / 4 / 24 x 96	96-well plates	740709.2 / .4 / .24
NucleoSpin® RNA Plant	20 / 50 / 250	mini spin columns	740949.20 / .50 / .250
NucleoTrap® mRNA mini / midi	12	latex beads	740655 / 740656

NucleoSpin® RNA II Flyer 1/30/03.03 PD
Printed in Germany

Note...

- ✓ For comprising data on our DNA and RNA purification products please ask for our catalogue **Bioanalysis 2004**

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Total RNA Isolation - NucleoSpin® RNA kits