

MACHEREY-NAGEL

# RNA purification guide

Bioanalysis



RNA purification products  
for various sample materials

- Tailored solutions for various applications
- Superior reproducibility and quality
- Highest lysis efficiency

**MACHEREY-NAGEL**

[www.mn-net.com](http://www.mn-net.com)



# RNA purification guide

## MACHEREY-NAGEL RNA Kit Finder

Target molecule	Starting material	Technology	Format	Product	Page	
RNA (> 200 nt)	Cells and tissue	Silica membrane	Micro	NucleoSpin® RNA XS	p. 4	
			Mini	NucleoSpin® RNA	p. 3	
				NucleoSpin® RNA Plus	p. 3	
			Midi	NucleoSpin® RNA Midi	p. 3	
			8 / 96-well	NucleoSpin® 8/96 RNA	p. 5	
	Reagent	Scalable	NucleoZOL			p. 4
			NucleoMag® 96 RNA			p. 5
	Blood	Silica membrane	Mini	NucleoSpin® RNA Blood	p. 9	
			Midi	NucleoSpin® RNA Blood Midi	p. 9	
			8 / 96-well	NucleoSpin® 8 / 96 RNA Blood	p. 9	
	Plant	Silica membrane	Mini	NucleoSpin® RNA Plant	p. 11	
	Reaction mixtures	Silica membrane	Mini	NucleoSpin® RNA Clean-up	p. 5	
			Micro	NucleoSpin® RNA Clean-up XS	p. 5	
	Small and large RNA (incl. miRNA)	Cells and tissue	Silica membrane	Mini	NucleoSpin® miRNA	p. 6
			Reagent	Scalable	NucleoZOL	p. 4
NucleoZOL lysates		Silica membrane	Mini	NucleoSpin® RNA Set for NucleoZOL	p. 4	
Plasma		Silica membrane	Mini	NucleoSpin® miRNA Plasma	p. 6	
FFPE		Silica membrane	Mini	NucleoSpin® totalRNA FFPE	p. 10	
			Micro	NucleoSpin® totalRNA FFPE XS	p. 10	
RNA, DNA, and proteins		Cells, tissue, plant, blood, bacteria, yeast	Silica membrane	Mini	NucleoSpin® TriPrep	p. 7
	Buffer set		Micro / Mini	NucleoSpin® RNA/DNA Buffer Set	p. 8	
Poly(A) mRNA	Total RNA	Affinity beads	Mini	NucleoTrap® mRNA Mini	p. 11	
			Midi	NucleoTrap® mRNA Midi	p. 11	

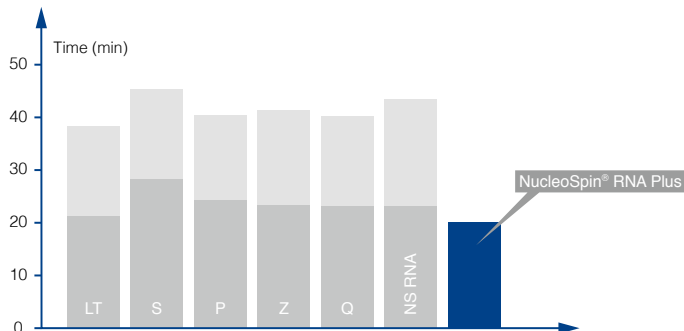
# RNA purification guide

## NucleoSpin® RNA Plus

The next generation kit for RNA isolation from cells and tissue

- NucleoSpin® gDNA Removal Column  
No time-consuming rDNase digestion
- Lysate clearing and gDNA removal with one column in a single step  
Covenient handling and very fast processing
- New efficient lysis buffer  
No  $\beta$ -mercaptoethanol, TCEP, or other reducing reagents necessary

## Application data



### Time saving RNA isolation

The prep time of the NucleoSpin® RNA Plus procedure was compared to the protocols of competitor kits (LT, S, P, Z, Q) as well as the prep time of the NucleoSpin® RNA procedure (NS RNA) (Light grey: time for rDNase digestion). The NucleoSpin® RNA Plus kit is the fastest RNA isolation kit on the market: high quality RNA in 20 minutes!

## Ordering information

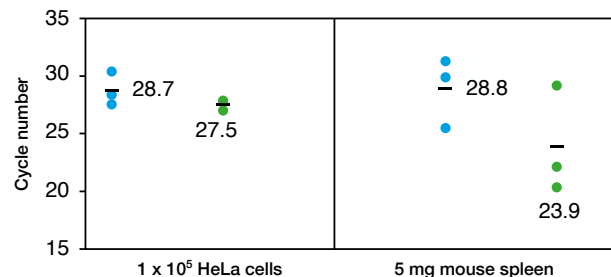
Product	Preps	REF
NucleoSpin® RNA Plus	10 / 50 / 250	740984.10 / .50 / .250

## NucleoSpin® RNA

Mini spin kit for RNA isolation of highest integrity

- Up to 70  $\mu$ g ready-to-use RNA from different sample materials  
Cells, tissue, bacteria, yeast
- rDNase included for on-column DNA digestion  
Easy and efficient removal of contaminating DNA
- NucleoSpin® Filters (shredders)  
Efficient sample homogenization and reduction of viscosity
- For larger amounts of sample material (up to 200 mg tissue): NucleoSpin® RNA Midi

## Application data



● NucleoSpin® RNA

● Competitor Q

### Highly efficient removal of genomic DNA

Total RNA isolated from different samples with NucleoSpin® RNA and Competitor Q kits was analyzed by qPCR. The RNA was tested for residual traces of DNA by amplifying a 104 bp multi-copy target (HeLa cells) and a 191 bp multi-copy target (mouse spleen). Higher cycle numbers indicate less residual DNA.

## Ordering information

Product	Preps	REF
NucleoSpin® RNA	10 / 50 / 250	740955.10 / .50 / .250
NucleoSpin® RNA Midi	20	740962.20

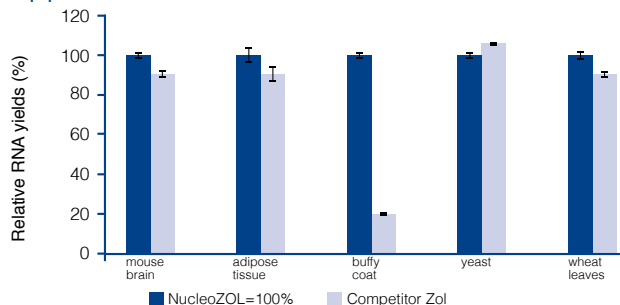
# RNA purification guide

## NucleoZOL

The universal RNA isolation reagent

- No chloroform, no phase separation
  - High RNA yields by a quick and easy procedure
- High RNA purity from any sample material and any sample amount
  - Efficient removal of DNA, proteins, and other contaminating compounds
- Combination with NucleoSpin® technology possible
  - For even more convenient handling

## Application data



### Market-leading RNA yields

RNA was extracted from different starting materials. RNA was quantified by qRT-PCR and relative yields were calculated (NucleoZOL=100%). RNA isolation with NucleoZOL results in similar or better RNA yield compared to standard two-phase extraction methods (competitor Zol).

## Ordering information

Product	Preps / Preps	REF
NucleoZOL	200 mL	740404.200
NucleoSpin® RNA Set for NucleoZOL*	10 / 50	740406.10 / .50

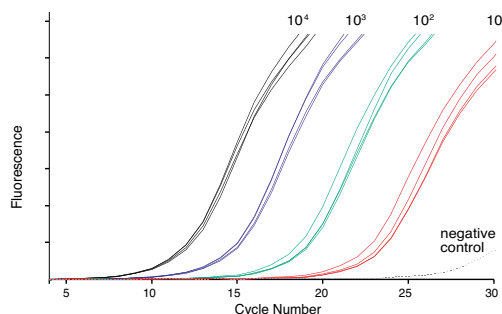
\* NucleoZOL reagent not included

## NucleoSpin® RNA XS

Purification of highly concentrated RNA from very small samples

- Achieve higher sensitivities for downstream applications
  - Optimized column design – elution in as little as 5 µL possible
- Successful RNA isolation even from minute sample amounts
  - Ideal for biopsies, LCM samples, FACS sorted cells, single cells, fine needle aspirates
- High-quality RNA, ready-to-use for RT-PCR and other applications
  - Optimized procedure for highest RNA quality – convenient and efficient on-column DNA removal

## Application data



### Reliable sensitivity – constant high yields

Total RNA was extracted from  $10^4$  (black),  $10^3$  (blue),  $10^2$  (green) and 10 (red) HeLa cells using NucleoSpin® RNA XS. Elution was performed with 10 µL, of which 2 µL were subjected to a one-tube, one-step qRT-PCR. NucleoSpin® RNA XS allows efficient isolation from sample amounts over several orders of magnitude, down to few cells.

## Ordering information

Product	Preps	REF
NucleoSpin® RNA XS	10 / 50 / 250	740902.10 / .50 / .250

# RNA purification guide

## NucleoSpin® RNA Clean-up – NucleoSpin® RNA Clean-up XS

### Mini und Micro kit for RNA clean-up

- RNA clean-up from pre-purified RNA
  - Phenol/chloroform extractions, enzymatic reactions, diluted RNA samples
- Time-saving procedure without DNase digestion and homogenization steps
  - Complete removal of RT-PCR inhibitors
- Choose the format you need:
  - NucleoSpin® RNA Clean-up: For samples up to 200 µL reaction mixtures
  - NucleoSpin® RNA Clean-up XS: For very diluted samples up to 300 µL containing max. 90 µg RNA

### Ordering information

Product	Preps	REF
NucleoSpin® RNA Clean-up	10/50/250	740948.10/.50/.250
NucleoSpin® RNA Clean-up XS	10/50/250	740903.10/.50/.250

## NucleoSpin® 8/96 RNA

### RNA isolation in flexible 8-well strip or proven 96-well plate format

- Time-saving parallel isolation of RNA from a variety of starting materials
  - E.g., cells, tissue, plant, buffy coat, PAXgene® Blood RNA Tubes
- High-quality RNA
  - rDNase included for efficient removal of genomic DNA – MN Wash Plate minimizes risk of cross-contamination
- Processing under vacuum or by centrifugation
  - Suitable for manual and automated processing
- NucleoSpin® 8/96 RNA Core Kits
  - Kits with basic content focused on automation platforms – additional accessories can be combined as needed

### Ordering information

Product	Preps	REF
NucleoSpin® 8 RNA	12 x 8 / 60 x 8	740698/.5
NucleoSpin® 8 RNA Core Kit	48 x 8	740465.4
NucleoSpin® 96 RNA	2 x 96 / 4 x 96 / 24 x 96	740709.2/.4/.24
NucleoSpin® 96 RNA Core Kit	4 x 96	740466.4

## NucleoMag® RNA

### Magnetic-bead based isolation of RNA

- Reliable purification of high-quality RNA
  - rDNase and reducing agent TCEP included – Small elution volumes > 50 µL
- Easily adaptable for automated use
  - One-tube procedure minimizes risk of cross-contamination – Complete processing at room temperature

### Ordering information

Product	Preps	REF
NucleoMag® RNA	1 x 96 / 4 x 96	744350.1/.4

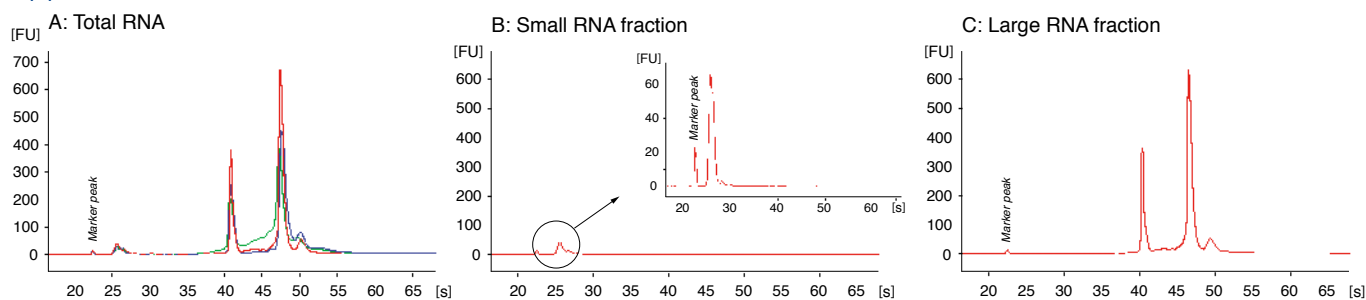
# RNA purification guide

## NucleoSpin® miRNA

Mini spin kit for isolation of small RNA, large RNA, and proteins

- RNA purification with optional size selection
  - Isolation of small RNA only (< 200 nt), small RNA and large RNA (> 200 nt) in two separate fractions, or total RNA (small and large RNA in one fraction)
- Additional isolation of proteins from the same sample
  - Ready to use for SDS-PAGE and Western blot analysis
- Excellent RNA recovery and purity by chaotropic salt lysis without phenol/chloroform
  - rDNase and NucleoSpin® Filters included

## Application data



### Reliable RNA fractionation with highest selectivity

Total RNA was isolated from  $10^7$  HeLa cells using NucleoSpin® miRNA (●) and two competitor kits based on phenol/chloroform lysis and extraction (◆) or phenol/chloroform extraction (●). Equal amounts of total RNA fractions were analyzed on an Agilent Bioanalyzer® (A). The NucleoSpin® miRNA Kit provides highest RNA yield and quality. NucleoSpin® miRNA allows isolation of small (B) and large (C) RNA in separate fractions in addition to the total RNA fraction (A).

## Ordering information

Product	Preps	REF
NucleoSpin® miRNA	10 / 50 / 250	740971.10 / 50 / 250

## NucleoSpin® miRNA Plasma

Mini spin kit for isolation of small RNA and DNA from plasma, serum, and exosomes

- Simple and fast procedure
  - No phenol/chloroform extraction necessary
- Efficient isolation of RNA from plasma or serum samples as well as exosomes
  - Superior recovery of small RNA > 15 nt
- Optional on-column DNA digest for increased sensitivity in downstream applications
  - Parallel DNA isolation possible if needed

## Reference

Tan *et al.* "Evaluation of extraction kits and RT-qPCR systems adapted to high-throughput platform for circulating miRNAs"  
Sci Rep. 2015 Mar 24; 5: 9430

## Ordering information

Product	Preps	REF
NucleoSpin® miRNA Plasma	10 / 50 / 250	740981.10 / 50 / 250

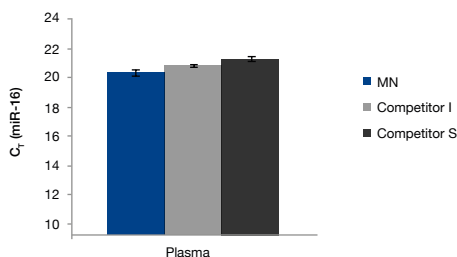
# RNA purification guide

## Exosome Precipitation Solution (Serum / Plasma) – (Urine)

Solution for precipitation of exosomes from serum / plasma, or urine samples

- Simple and fast precipitation of exosomes
  - Avoid tedious ultracentrifugation
- Flexibility in sample amount
  - Procedure can be scaled up or down depending on sample volume
- Subsequent miRNA isolation possible
  - Use NucleoSpin® miRNA Plasma for miRNA isolation from exosomes

## Application data



### High miRNA yields from plasma exosomes

Exosomes were enriched from 250  $\mu$ L plasma using Exosome Precipitation Solution from MN and competitor products. The precipitated exosomes were used for miRNA isolation with NucleoSpin® miRNA Plasma. Quantification of miR-16 was done by quantitative realtime RT-PCR (Applied Biosystems, TaqMan® MicroRNA RT Kit, hsa-miR-16 MicroRNA Assay). The results show that the use of MACHERY-NAGEL Exosome Precipitation Solution results in highest miRNA yield indicating most efficient exosome enrichment.

## Customer testimonial

"We have used the Exosome Precipitation Solution from MN to isolate exosomes from control or HCV infected sera clinical samples according to the protocol. The resulted precipitated fraction was of high yield and enriched in exosomes. The obtained fraction was pure when tested by western blotting with antibodies against HSP90, CD9. We are very satisfied with this product and we already recommend it to other investigators."

U. Georgopoulou (PhD), Lab. Molecular Virology, Hellenic Pasteur Institute, Athens, Greece

## Ordering information

Product	Pack of	REF
Exosome Precipitation Solution (Serum / Plasma) *	2 mL / 12 mL / 60 mL	740398.2 / .12 / .60
Exosome Precipitation Solution (Urine) *	12 mL / 20 mL / 250 mL	740399.12 / .50 / .250

\*Not available in the USA

## NucleoSpin® TriPrep

Mini spin kit for parallel isolation of RNA, DNA, and proteins

- Convenient one-column preparation of RNA, DNA, and proteins from unsplit samples
  - High quality RNA and DNA, ready to use for downstream applications
- High protein yield independent of protein size, localization, modification, etc.
  - Easy protein quantification using the MACHERY-NAGEL Protein Quantification Assay
- Complete kit with NucleoSpin® Filters
  - NucleoSpin® Filters (shredders) for efficient lysis and optimized RNA recovery

## Reference

Hansen *et al.* "A link between inflammation and metastasis: serum amyloid A1 and A3 induce metastasis, and are targets of metastasis-inducing S100A4"  
*Oncogene* 2015 Jan 22; 34 (4): 424-35

## Ordering information

Product	Preps	REF
NucleoSpin® TriPrep	10 / 50 / 250	740966.10 / .50 / .250
Protein Quantification Assay	50 / 250	740967.50 / .250

# RNA purification guide

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## NucleoSpin® RNA/Protein

Mini spin kit for parallel isolation of RNA and proteins

- No splitting of samples required  
Reliable analysis of RNA and protein levels extracted from the same sample
- High RNA yield and integrity  
NucleoSpin® Filters (shredders) and recombinant DNase for DNA-free RNA of high quality
- High protein yield independent of protein size, localization, modification, etc.  
Easy protein quantification using the MACHEREY-NAGEL Protein Quantification Assay

## Reference

Park *et al.* "Targeting of miR34a–NOTCH1 Axis Reduced Breast Cancer Stemness and Chemoresistance"  
*Cancer Res.*, Dec 2014; 74: 7573-7582

## Ordering information

Product	Preps	REF
NucleoSpin® RNA/Protein	10 / 50 / 250	740933.10 /.50 /.250
Protein Quantification Assay	50 / 250	740967.50 /.250

## NucleoSpin® RNA/DNA Buffer Set

Buffer set for parallel isolation of RNA and DNA with NucleoSpin® RNA kits

- To be used in combination with NucleoSpin® RNA kits  
NucleoSpin® RNA, NucleoSpin® RNA XS, NucleoSpin® miRNA, NucleoSpin® RNA Blood, NucleoSpin® RNA Plant, NucleoSpin® RNA/Protein kits
- No need to split samples (e.g., precious, indivisible samples like biopsy material)  
High-quality DNA and RNA from one sample, perfect for PCR, RT-PCR, real-time PCR

## References

Eves-van den Akker *et al.* "Identification and characterisation of a hyper-variable apoplastic effector gene family of the potato cyst nematodes"  
*PLoS Pathog.* 2014 Sep 25; 10 (9): E 1004391

## Ordering information

Product	Preps	REF
NucleoSpin® RNA/DNA Buffer Set	100	740944



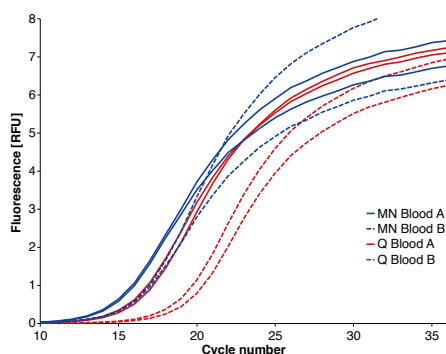
# RNA purification guide

## NucleoSpin® RNA Blood

Mini spin kit for RNA isolation from fresh and frozen whole blood

- Direct total blood lysis – very simple and convenient procedure (patent pending)  
No selective erythrocyte lysis at 4 °C – complete processing at room temperature
- Superior RNA yield and quality from up to 400 µL whole blood  
Efficient on-column DNA removal for an increased sensitivity in downstream applications
- Compatible with common blood collection tubes and anticoagulants  
E.g., EDTA, citrate, and heparin – suitable for fresh and frozen whole blood samples
- NucleoSpin® RNA Blood Midi: For large whole blood samples  
Up to 26 µg high-quality RNA from 1300 µL fresh or frozen whole blood samples

## Application data



Direct lysis results in higher yields compared to selective erythrocyte lysis

RNA was isolated from 400 µL blood (EDTA) from two different donors (Blood A, B) with the NucleoSpin® RNA Blood kit and a kit from Competitor Q (based on selective erythrocyte lysis). For both samples, CT values are lower for NucleoSpin® RNA Blood indicating a higher RNA yield. Analysis of RNA with LightCycler® RT-PCR and  $\beta$ -actin specific primers resulted in a 73 nt amplicon.

## References:

Guery *et al.* "Clinical features and viral diagnosis of two cases of infection with Middle East Respiratory Syndrome coronavirus: a report of nosocomial transmission"  
Lancet. 2013 Jun 29; 381 (9885): 2265-72

## Ordering information

Product	Preps	REF
NucleoSpin® RNA Blood	10 / 50	740200.10 / .50
NucleoSpin® RNA Blood Midi	20	740210.20

## NucleoSpin® 8/96 RNA Blood

RNA isolation from whole blood in flexible 8-well strip or proven 96-well format

- Direct total blood lysis – no selective erythrocyte lysis at 4 °C  
Complete processing at RT
- Compatible with common blood collection tubes and anticoagulants  
E.g., EDTA, citrate, and heparin – suitable for fresh and frozen whole blood samples
- Highly pure RNA  
rDNase for DNA removal included – MN Wash Plate minimizes risk of cross-contamination

## Ordering information

Product	Preps	REF
NucleoSpin® 8 RNA Blood	12 x 8 / 60 x 8	740220 /.5
NucleoSpin® 96 RNA Blood	2 x 96 / 4 x 96	740225.2 /.4

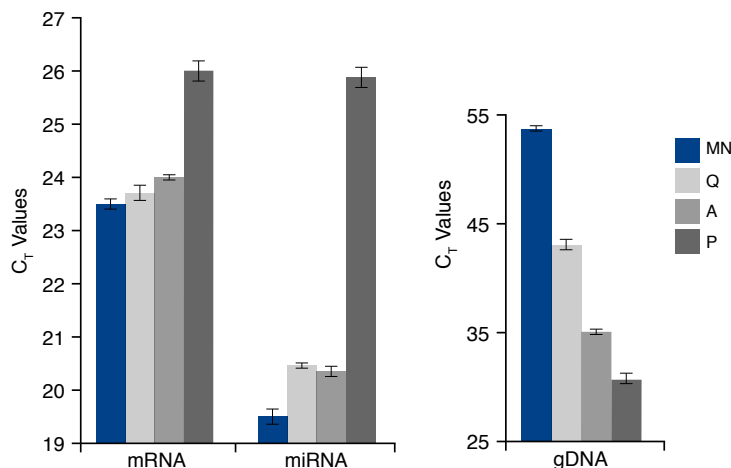
# RNA purification guide

## NucleoSpin® totalRNA FFPE

Mini spin kit for the isolation of small and large RNA from FFPE samples

- Convenient paraffin removal with blue colored Paraffin Dissolver (patent pending)  
No xylene required
- Isolate total RNA regardless of fragment size  
Including small RNA, such as miRNA
- High-quality RNA for enhanced RT-PCR performance  
Decrosslinking for improved RNA quality and rDNase for on-column DNA digestion

## Application data



### Excellent RT-PCR performance and most efficient gDNA removal with NucleoSpin® totalRNA FFPE

Large (e.g., mRNA) and small (e.g., miRNA) RNA was isolated from 4 x 10 µm FFPE sections of mouse brain tissue with NucleoSpin® totalRNA FFPE and compared to three other competitor kits (Q, A, P). (A) Quantification of mRNA\* and miRNA\*\* was done by qRT-PCR. Low C<sub>T</sub> values indicate high RNA yields. (B) Residual DNA was assayed by amplifying a 191 bp fragment of the mGAPDH gene. The higher the C<sub>T</sub> values the lower the residual DNA.

\*Target: 230 bp fragment of the β<sub>2</sub>-microglobulin gene

\*\*Applied Biosystems, TaqMan® MicroRNA RT Kit, hsa-miR-16 MicroRNA Assay

## Reference

Al-Samadi *et al.* "Increased beta 2 defensin in recurrent aphthous ulcer"  
Oral Dis. 2015 Apr; 21 (3): 292-8

## Ordering information

Product	Preps	REF
NucleoSpin® totalRNA FFPE	10/50/250	740982.10/.50/.250

## NucleoSpin® totalRNA FFPE XS

Isolation of small and large RNA from very small FFPE samples

- Blue colored Paraffin Dissolver (patent pending) for easy paraffin removal  
No xylene required
- Removal of formalin crosslinking by efficient decrosslinking buffer  
High-quality RNA (including miRNA) for improved performance in downstream applications
- Special NucleoSpin® XS Column for very small samples (< 5 mg tissue)  
Elution volume down to 5 µL for concentrated RNA

## Ordering information

Product	Preps	REF
NucleoSpin® totalRNA FFPE XS	10/50/250	740969.10/.50/.250

# RNA purification guide

## NucleoSpin® RNA Plant

Mini spin kit for the isolation of RNA from plant material

- Optimized lysis procedure
  - Two lysis buffers included – choose the optimal lysis condition
- Up to 70 µg ready-to-use RNA
  - NucleoSpin® Filter for efficient homogenization and reduction of viscosity
- High-quality RNA
  - rDNase for efficient DNA removal included

## Application data

Species	Organ	Yield
<i>Allium cepa</i> (onion)	Germ bud	13 µg
<i>Allium sativum</i> (garlic)	Leaf	13 µg
<i>Arabidopsis thaliana</i> (thale cress)	Leaf	15 µg
<i>Beta vulgaris</i> (sugar beet)	Leaf	17 µg
<i>Brassica napus</i> (rapeseed)	Leaf, blossom, stalk	7–9 µg
<i>Capsicum annuum</i> (red pepper)	Leaf	8 µg
<i>Cucumis melo</i> (cucumber)	Leaf	15 µg
<i>Gladiolus spec.</i>	Leaf	7 µg
<i>Hordeum vulgare</i> (barley)	Leaf	3 µg
<i>Lactuca sativa</i> (lettuce)	Leaf	4 µg

Species	Organ	Yield
<i>Lycopersicon esculentum</i> (tomato)	Leaf	10 µg
<i>Mucor rouxii</i> (fungus)	Mycelium	6 µg
<i>Nicotiana tabacum</i> (tobacco)	Leaf, root tip, stalk, blossom	12–33 µg
<i>Secale cereale</i> (rye)	Leaf	12 µg
<i>Taraxacum officinale</i> (dandelion)	Leaf	10 µg
<i>Thymus herba-barona</i> (thyme)	Leaf	15 µg
<i>Triticum aestivum</i> (wheat)	Leaf	4 µg
<i>Viola tricolor</i> (viola)	Leaf	9 µg
<i>Zea mays</i> (maize)	Leaf	18 µg

## Ordering information

Product	Preps	REF
NucleoSpin® RNA Plant	10 / 50 / 250	740949.10 / .50 / .250

## NucleoTrap® mRNA

Kit for the enrichment and isolation of poly(A) messenger RNA (mRNA) from total RNA

- High-quality mRNA without DNA contamination
  - Ready to use in all common downstream applications
- Convenient and fast processing
  - NucleoTrap® Microfilters included for microcentrifugation – mRNA enrichment in only 30 min
- Available in Mini and Midi format
  - NucleoTrap® mRNA Mini: for up to 250 µg total RNA as starting material
  - NucleoTrap® mRNA Midi: for up to 1,000 µg total RNA as starting material

## Ordering information

Product	Preps	REF
NucleoTrap® mRNA Mini	12	740655
NucleoTrap® mRNA Midi	12	740656

# RNA purification guide

## Ordering information

RNA from cells and tissue	Preps / Pack of	REF
NucleoSpin® RNA	10 / 50 / 250	740955.10 / .50 / .250
NucleoSpin® RNA Plus	10 / 50 / 250	740984.10 / .50 / .250
NucleoZOL	200 mL	740404.200
NucleoSpin® RNA Set for NucleoZOL	10 / 50	740406.10 / .50
NucleoSpin® RNA XS	10 / 50 / 250	740902.10 / .50 / .250
NucleoSpin® RNA Midi	20	740962.20
NucleoSpin® 8 RNA	12 x 8 / 60 x 8	740698 / .5
NucleoSpin® 8 RNA Core Kit	48 x 8	740465.4
NucleoSpin® 96 RNA	2 x 96 / 4 x 96 / 24 x 96	740709.2 / .4 / .24
NucleoSpin® 96 RNA Core Kit	4 x 96	740466.4
NucleoMag® RNA	1 x 96 / 4 x 96	744350.1 / .4
MicroRNA	Preps / Pack of	REF
NucleoSpin® miRNA	10 / 50 / 250	740971.10 / .50 / .250
NucleoSpin® miRNA Plasma	10 / 50 / 250	740981.10 / .50 / .250
Exosome Precipitation Solution (Serum / Plasma)*	2 mL / 12 mL / 60 mL	740398.2 / .12 / .60
Exosome Precipitation Solution (Urine)*	12 mL / 20 mL / 250 mL	740399.12 / .50 / .250
RNA, DNA, and protein	Preps	REF
NucleoSpin® TriPrep	10 / 50 / 250	740966.10 / .50 / .250
NucleoSpin® RNA/Protein	10 / 50 / 250	740933.10 / .50 / .250
NucleoSpin® RNA/DNA Buffer Set	100	740944
RNA from blood	Preps	REF
NucleoSpin® RNA Blood	10 / 50	740200.10 / .50
NucleoSpin® RNA Blood Midi	20	740210.20
NucleoSpin® 8 RNA Blood	12 x 8 / 60 x 8	740220 / .5
NucleoSpin® 96 RNA Blood	2 x 96 / 4 x 96	740225.2 / .4
Small and large RNA from FFPE samples	Preps	REF
NucleoSpin® totalRNA FFPE	10 / 50 / 250	740982.10 / .50 / .250
NucleoSpin® totalRNA FFPE XS	10 / 50 / 250	740969.10 / .50 / .250
RNA from plant	Preps	REF
NucleoSpin® RNA Plant	10 / 50 / 250	740949.10 / .50 / .250
Poly(A) mRNA from total RNA	Preps	REF
NucleoTrap® mRNA Mini	12	740655
NucleoTrap® mRNA Mini	12	740656
RNA clean-up	Preps	REF
NucleoSpin® RNA Clean-up	10 / 50 / 250	740948.10 / .50 / .250
NucleoSpin® RNA Clean-up XS	10 / 50 / 250	740903.10 / .50 / .250

Trademarks: PAXgene® registered trademark by PreAnalytiX GmbH, Agilent Bioanalyzer® registered trademark by Agilent Technologies, LightCycler® registered trademark by Roche Group, TaqMan® registered trademark by Life Technologies Corporation

\*Not available in the USA

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