

RNA purification products from MACHERY-NAGEL

*Two column solutions
for different FFPE sample amounts*

Small and large RNA from FFPE samples

NucleoSpin® totalRNA FFPE

NucleoSpin® totalRNA FFPE XS



Paraffin removal without xylene

Lysis and decrosslinking combined in one step

Convenient on-column rDNase digestion

... enhance your RT-PCR performance

MACHERY-NAGEL

www.mn-net.com



Since 1911

NucleoSpin® totalRNA FFPE

NucleoSpin® totalRNA FFPE XS

High efficiency for standard and very small FFPE samples

▶ Efficient isolation of total RNA from FFPE samples

Two-in-one – purification of small (e.g. miRNA) and large RNA with one kit

▶ Two kit options – high recovery from standard and very small FFPE samples

NucleoSpin® totalRNA FFPE: Mini spin column for standard and large samples

NucleoSpin® totalRNA FFPE XS: XS Mini spin column for very small samples

▶ Convenient paraffin removal

Without toxic organic solvent (e.g. xylene) – simply melt paraffin in Paraffin Dissolver (patent pending)

Blue colored Paraffin Dissolver – very easy visualization of phase separation, and convenient paraffin removal

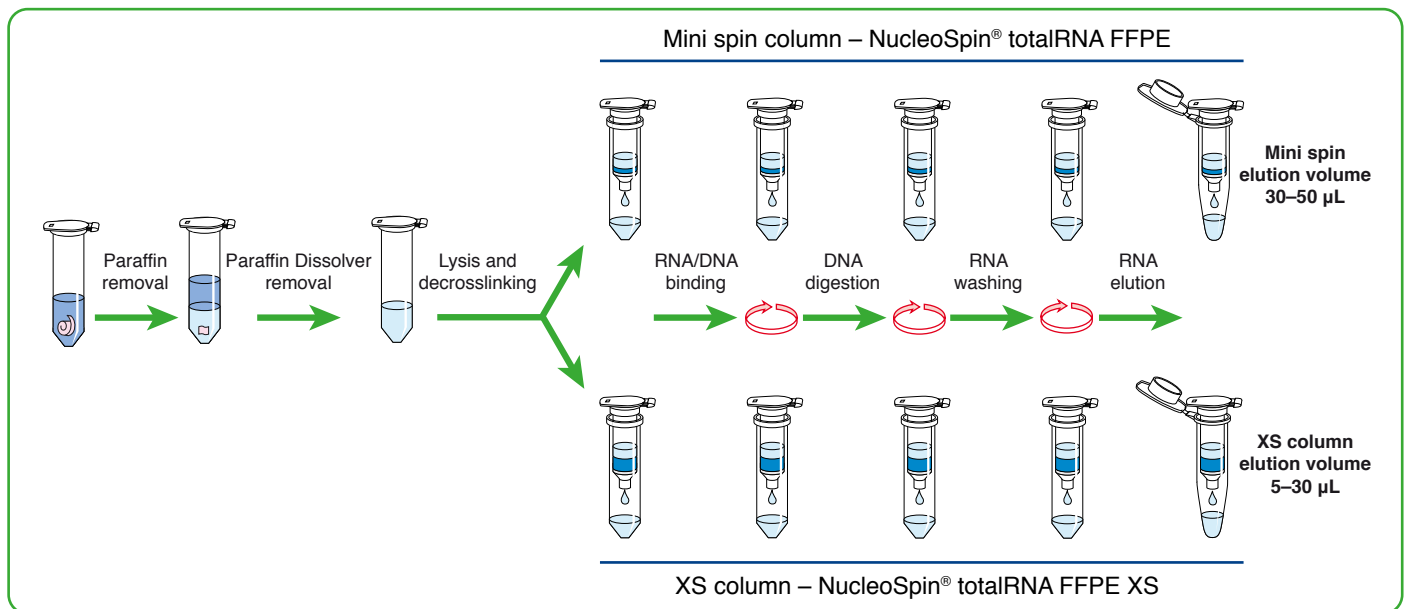
▶ Enhanced RT-PCR performance

Lysis and decrosslinking in one step – convenient handling

On-column rDNase digestion – efficient DNA removal

Elution in as little as 5–30 µL (XS column) – highest concentration even from trace amounts of FFPE samples

Procedure – same procedure for both kits

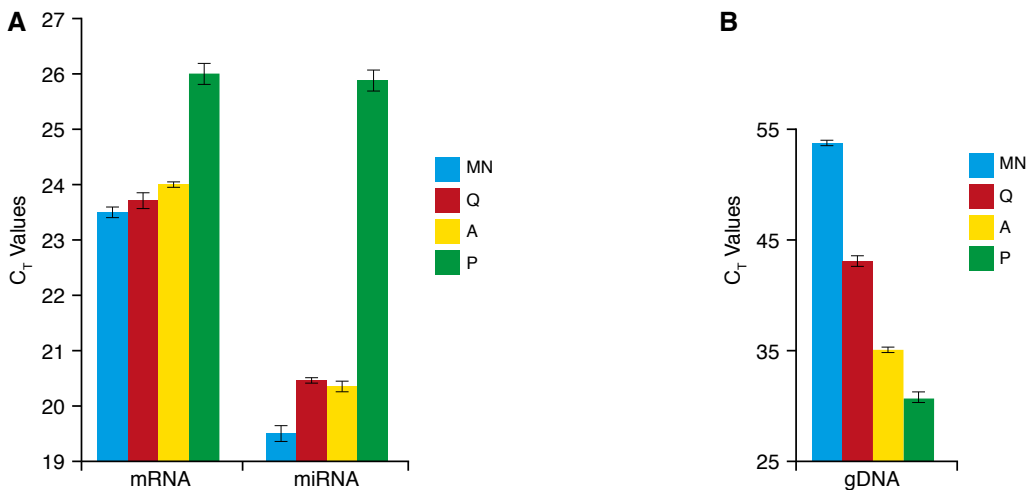


Product at a glance

Kit name	NucleoSpin® totalRNA FFPE	NucleoSpin® totalRNA FFPE XS
Technology	Silica-membrane technology	Silica-membrane technology
Format	Mini spin columns	Mini spin columns – XS design
Sample material	4–10 sections (á 10 µm, á up to 6 cm ² tissue area), <50 mg of tissue	1–3 sections (á 10 µm, á up to 6 cm ² tissue area), <5 mg of tissue
Typical yield	Depending on amount and quality of the sample	Depending on amount and quality of the sample
Elution volume	30–50 µL	5–30 µL
Preparation time	70 min/6 preps (excl. rDNase digestion)	70 min/6 preps (excl. rDNase digestion)
Binding capacity	200 µg	100 µg

NucleoSpin® totalRNA FFPE

Application Data



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

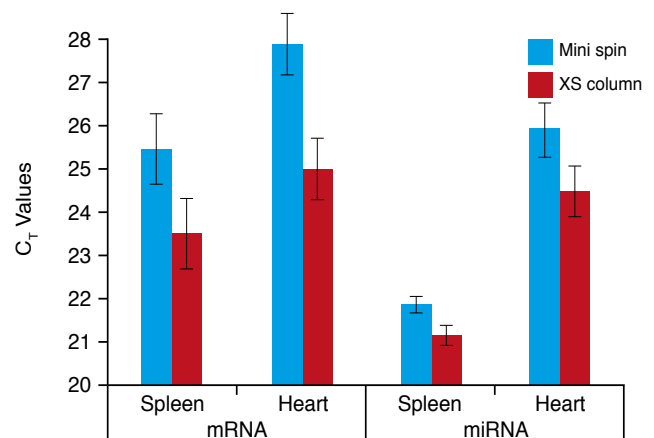
Large (e.g., mRNA) and small (e.g., miRNA) RNA was isolated from 4 x 10 µm FFPE sections of mouse brain tissue with NucleoSpin® totalRNA FFPE compared to three other competitor kits (Q, A, P). (A) Quantification of mRNA* and miRNA** was done by qRT-PCR. Low C_T values indicate high RNA yield. (B) Residual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

NucleoSpin® totalRNA FFPE XS

Application Data

Higher concentration of total RNA obtained from XS columns for efficient sensitivity in qRT-PCR from very small FFPE sample amounts

Trace amount of FFPE samples (1 x 15 µm mouse spleen and 1 x 10 µm mouse heart) were used for the isolation of mRNA and miRNA with NucleoSpin® totalRNA FFPE and NucleoSpin® totalRNA FFPE XS. The elution was performed with 50 µL (Mini spin column) and with 20 µL (XS column). mRNA* and miRNA** purified with the XS column show a higher concentrated eluate resulting in at least one lower cycle of C_T value. When using standard FFPE sample amounts the use of the NucleoSpin® totalRNA FFPE with the Mini spin column is recommended due to possible column overloading.



*Target length 230 bases of the β2-microglobulin gene

**Applied Biosystems, TagMan® MicroRNA RT Kit, has-miR-16 MicroRNA Assay

NucleoSpin® totalRNA FFPE

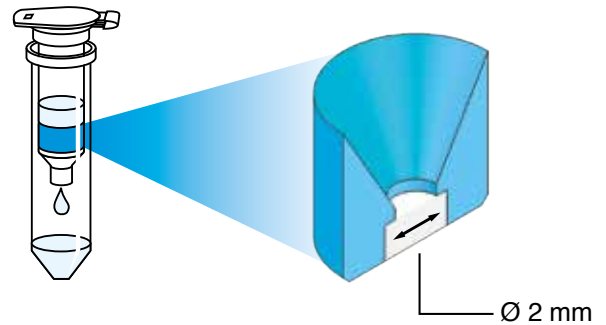
NucleoSpin® totalRNA FFPE XS

High efficiency for standard and very small FFPE samples

MACHEREY-NAGEL has developed two new kits: NucleoSpin® totalRNA FFPE and NucleoSpin® totalRNA FFPE XS. Each kit comes with a convenient blue colored Paraffin Dissolver for easy visualization of the phase separation and convenient paraffin removal. The new lysis chemistry is combined with the decrosslinking step that allows isolation of high quality RNA (large and small RNA, e.g. miRNA).

The difference between both kits is the included columns. The NucleoSpin® totalRNA FFPE kit includes the standard Mini spin column with the elution volume of 30–50 µL. This kit should be used for standard FFPE (<50 mg tissue) samples.

For trace amounts of FFPE samples (<5 mg tissue) e.g. microdissections, the NucleoSpin® totalRNA FFPE XS kit with the XS column is recommended. The XS column allows elution in a volume as low as 5 µL. This is especially valuable when doing qRT-PCR using tiny sample amounts.



XS-column design – increased concentration for trace amount of FFPE samples

NucleoSpin® totalRNA FFPE XS columns are designed for increased sensitivity. A silica membrane of small diameter (2 mm) is embedded in a funnel-shaped ring (see column cross-section), allowing an elution volume of only 5–30 µL. Thus, also limited amounts of RNA can be eluted in higher concentrations – for higher sensitivity in downstream applications.

Ordering information

Single prep (spin columns)	Preps	REF
NucleoSpin® totalRNA FFPE	10/50/250 preps	740982.10/.50/.250
NucleoSpin® totalRNA FFPE XS	10/50/250 preps	740969.10/.50/.250

Related Products

Single prep (spin columns)	Preps	REF
NucleoSpin® DNA FFPE XS	10/50/250 preps	740980.10/.50/.250
NucleoSpin® RNA	10/50/250 preps	740955.10/.50/.250
NucleoSpin® RNA XS	10/50/250 preps	740902.10/.50/.250
NucleoSpin® RNA Clean-up	10/50/250 preps	740948.10/.50/.250
NucleoSpin® RNA Clean-up XS	10/50/250 preps	740903.10/.50/.250
NucleoSpin® miRNA	10/50/250 preps	740971.10/.50/.250
NucleoSpin® miRNA Plasma	10/50/250 preps	740981.10/.50/.250
Product accessories	Volume	REF
Paraffin Dissolver	25 mL	740968.25
rDNase Set	1	740963

Trademarks

MACHEREY-NAGEL: NucleoSpin®
Applied Biosystems: TagMan®

Your local distributor

www.mn-net.com

MACHEREY-NAGEL



MACHEREY-NAGEL GmbH & Co. KG · Neumann-Neander-Str. 6–8 · 52355 Düren · Germany

Germany and international:
Tel.: +49 24 21 969-0
Fax: +49 24 21 969-199
E-mail: info@mn-net.com

Switzerland:
MACHEREY-NAGEL AG
Tel.: +41 62 388 55 00
Fax: +41 62 388 55 05
E-mail: sales-ch@mn-net.com

France:
MACHEREY-NAGEL EURL
Tel.: +33 388 68 22 68
Fax: +33 388 51 76 88
E-mail: sales-fr@mn-net.com

USA:
MACHEREY-NAGEL Inc.
Tel.: +1 484 821 0984
Fax: +1 484 821 1272
E-mail: sales-us@mn-net.com

