

Get highly concentrated RNA from smallest samples!

NucleoSpin® RNA XS

Rapid purification of total RNA from **Xtra Small** samples

NucleoSpin® RNA XS is designed for total RNA isolation out of **Xtra Small** samples like microdissected tissue or small amounts of cells.

Based on the reliable silica membrane technology **NucleoSpin® RNA XS** is overcoming the limitations of conventional kits by an innovative new column design: A funnel-shaped thrust ring is holding a silica membrane of small diameter. This set-up allows accurate dispensing of small volumes onto the membrane and results in a reduced elution volume of only 5 – 20 µl. The high RNA yield achieved with **NucleoSpin® RNA XS** together with the small elution volume lead to highly concentrated RNA – free of impurities and suitable for sensitive downstream applications.

elution volume:
Xtra Small
- concentration:
Xtra high
- downstream:
Xtra Sensitive

✓ for smallest samples

✓ elution in only 5 – 20 µl

✓ rDNase included

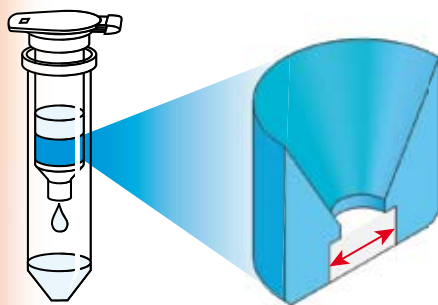
✓ high purity

*...get RNA from a single cell
or only 0.1 mg tissue*

*...highly concentrated RNA for
sensitive downstream applications*

*...for optional timesaving
on-column DNA removal*

...ready-to-use for RT-PCR



New column design - increased sensitivity

The innovative new funnel-shaped thrust ring allows standard mini prep spin columns to hold a silica membrane of very small diameter.

The small surface of the **NucleoSpin® RNA XS** membrane allows efficient elution in only 5 – 20 µl resulting in highest RNA concentrations ready for all typical downstream applications.

➤ *better results from small samples*

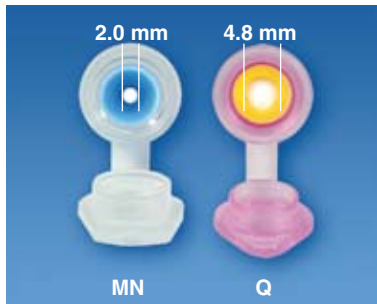
The ideal solution for the analysis of samples as small as:

tissue: 0.1 – 5 mg (e.g. laser microdissections, biopsy material, cryosections)

cells: 1 – 500,000 (e.g. cultured cells, stem cells)

plant

material: 3 – 30 mg (e.g. stem, leaves, roots)



Elution volume depends on membrane diameter

MACHEREY-NAGEL (MN):

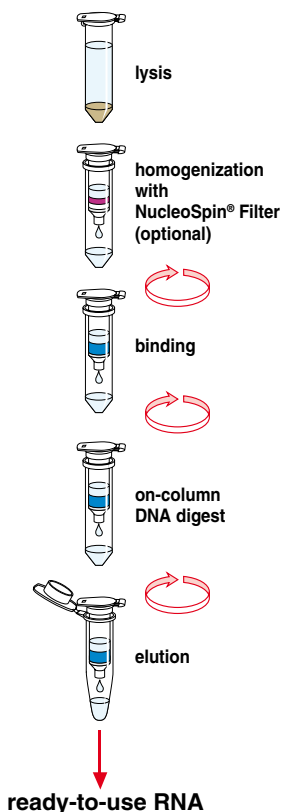
The **Xtra Small** diameter of the **NucleoSpin® RNA XS** membrane allows efficient **elution in as little as 5 µl RNase-free water**.

Competitor Q:

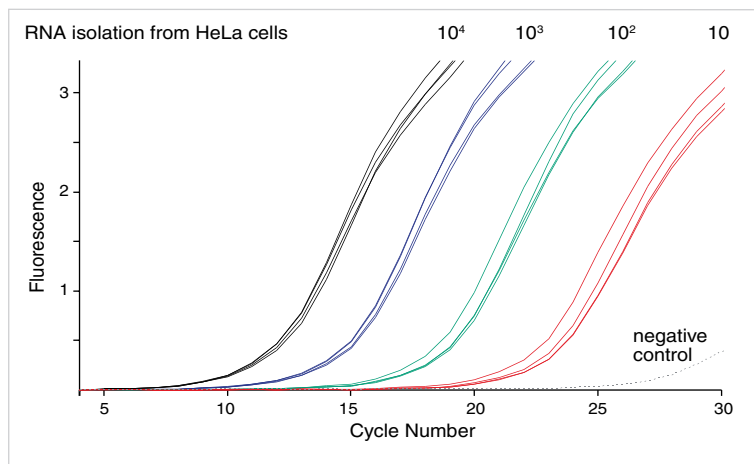
The kit designed for very small samples does not have optimized column features for the desired application. Therefore elution in higher volumes (10 – 14 µl) is necessary.

➤ **get the high RNA concentration you need ... with NucleoSpin® RNA XS**

NucleoSpin® RNA XS Procedure



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 in 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.

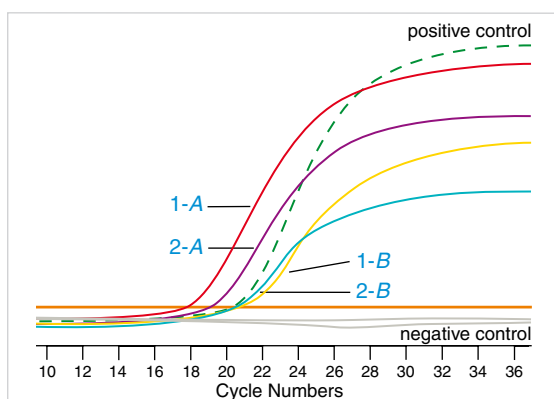
NucleoSpin RNA® XS combines reliable high sensitivity with reproducible high yields.

Wide variety of applications – reliable results

RNA was isolated from paranasal sinus carcinoma with **NucleoSpin® RNA XS**: Cryosections (1) and sections of tissue treated with *RNAlater®* (2) served as sample material, sample size was 10 µm x 55 mm². The RNA was reverse transcribed with two different commercial kits, one with random primers (A) and one with oligo-dT primers (B). Subsequent β-Actin qPCR was performed with a SYBR® Green qPCR Kit on an iCycler™ (Bio-Rad).

NucleoSpin® RNA XS showed positive results on all systems with Ct values between 17.6 and 21.1.

Data kindly provided by Dipl.-Biol. Monika Gramann, Forschungslabor I, HNO Klinik, Kopf- und Halschirurgie, Universitätsklinikum Erlangen



Ordering Information

Catalogue No	Description	Quantity
NZ74090210	NucleoSpin® RNA XS	10 preps
NZ74090250	NucleoSpin® RNA XS	50 preps
NZ740902250	NucleoSpin® RNA XS	250 preps



Fisher Scientific

Part of Thermo Fisher Scientific

Tel: 01509 231166

Fax: 01509 231893

Email: fsuk.sales@thermofisher.com

www.fisher.co.uk

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