

# Get highly concentrated DNA from small samples!

## NucleoSpin® Tissue XS

### Rapid purification of genomic, bacterial, and viral DNA from Xtra Small samples

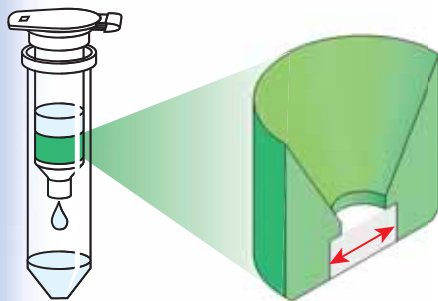
NucleoSpin® Tissue XS is designed for DNA isolation out of Xtra Small samples like microdissected tissue, small blood samples, or small amounts of cells. Based on the reliable silica membrane technology NucleoSpin® Tissue XS is overcoming the limitations of conventional kits by an innovative new column design: A funnel-shaped thrust ring is holding a silica membrane of small diameter. It allows accurate dispensing of small volumes on the membrane and a reduced elution volume of only 5 – 30 µl. The high DNA yield achieved with NucleoSpin® Tissue XS and the small elution volume lead to highly concentrated DNA – free of impurities and suitable for sensitive downstream applications.

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

### Features

- ✓ optimized column design
- ✓ silica membrane technology
- ✓ high purity
- ✓ elution in only 5 – 30 µl

- ...reduced membrane area
- ...known for high reliability
- ...ready-to-use for real-time PCR
- ...gives you highly concentrated DNA for sensitive downstream applications



### New column design – unique advantages

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® Tissue XS membrane allows efficient elution in only 5 – 30 µl resulting in highest DNA concentrations ready for all typical downstream applications.

- ▶ **increased sensitivity, better results from small samples**

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

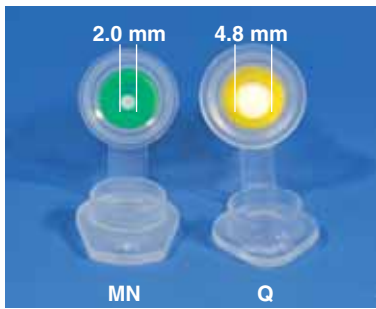
**tissue:** 0.025 – 10 mg (e.g. microdissected tissue, FFPE tissue)

**blood:** 1 – 30 µl of fresh, frozen, stabilized blood

**cells:** 10 – 10,000 cultured cells

*Optimal for dried blood spots, forensic samples, buccal swabs ...and others*

NucleoSpin® Tissue XS



### Elution volume depends on membrane diameter

MACHERY-NAGEL (MN):

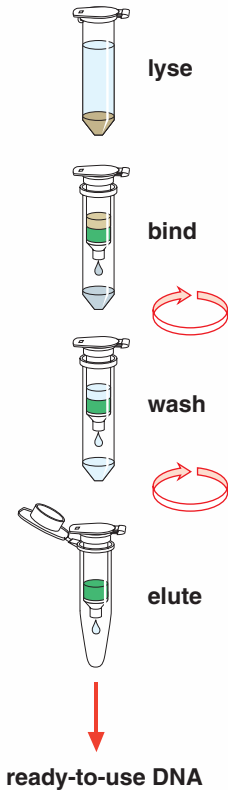
The **Xtra Small** diameter of the **NucleoSpin® Tissue XS** membrane allows efficient **elution in only 5 – 30 µl**.

Competitor Q:

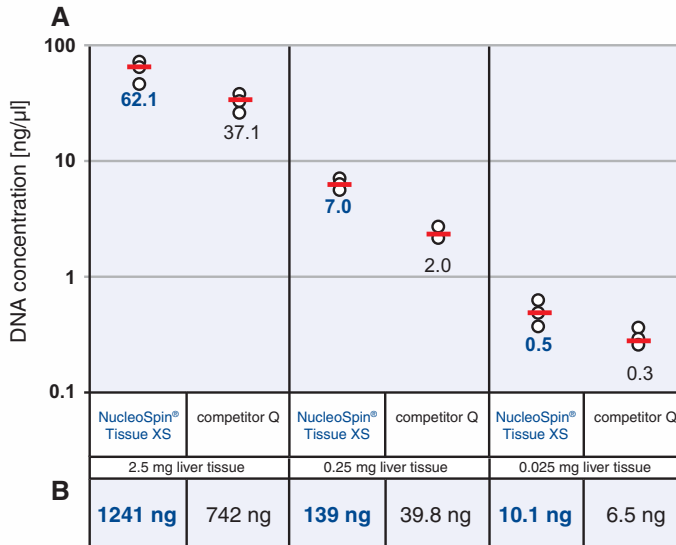
The kit designed for very small samples does not have optimized column features for the desired application. Therefore elution in high volume (20 – 100 µl) is necessary.

► **get the high DNA concentration you need ... with NucleoSpin® Tissue XS**

### NucleoSpin® Tissue XS Procedure



### Extraction of genomic DNA from small amounts of murine liver



Genomic DNA was purified from small amounts of murine liver tissue using **NucleoSpin® Tissue XS** and a competitor kit especially designed for very small sample amounts. With both kits DNA was eluted in 20 µl elution buffer. The DNA was subsequently subjected to LightCycler™ analysis.

**NucleoSpin® Tissue XS** is superior in both: higher DNA concentration (A) and higher total yield (B). With **NucleoSpin® Tissue XS**, the DNA concentration can even be further increased by using smaller elution volumes down to 5 µl. The smallest default elution volume of the competitor kit is 20 µl.

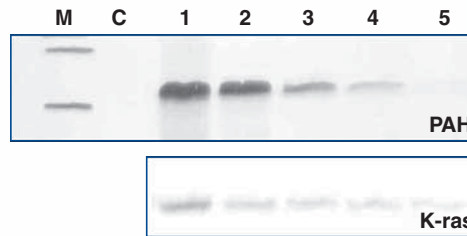
**Highest DNA concentration and highest total yield can be obtained with NucleoSpin® Tissue XS**

### DNA purification from microdissected, formalin fixed paraffin-embedded (FFPE) Tissue

DNA was purified from microdissected FFPE colon cancer tissue with **NucleoSpin® Tissue XS**. Sample sizes were 1 mm<sup>2</sup>, 0.5 mm<sup>2</sup>, 0.25 mm<sup>2</sup>, 0.125 mm<sup>2</sup>, and 0.065 mm<sup>2</sup> of a 4 µm slice. The isolated DNA was directly subjected to PCR with PAH and K-ras specific primers.

**NucleoSpin® Tissue XS allows purification of amplifiable DNA even from very small samples of FFPE tissue.**

Data kindly provided by S. Staack, Dr. D. Kuester, Dr. A. Poehlmann and Prof. R. Schneider-Stock, Department of Pathologie, Molecular Genetics, University of Magdeburg, Germany.



M: DNA ladder  
 C: negative control without DNA  
 1: 1 mm<sup>2</sup>  
 2: 0.5 mm<sup>2</sup>  
 3: 0.25 mm<sup>2</sup>  
 4: 0.125 mm<sup>2</sup>  
 5: 0.065 mm<sup>2</sup>

### Ordering Information:

**NucleoSpin® Tissue XS**  
 (10/50/250 preps)

### Cat. No.

740 901.10 / .50 / .250

### Distributed by:

For more information regarding the use of MN products, please contact your local representative or visit MN directly: [www.mn-net.com](http://www.mn-net.com).

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