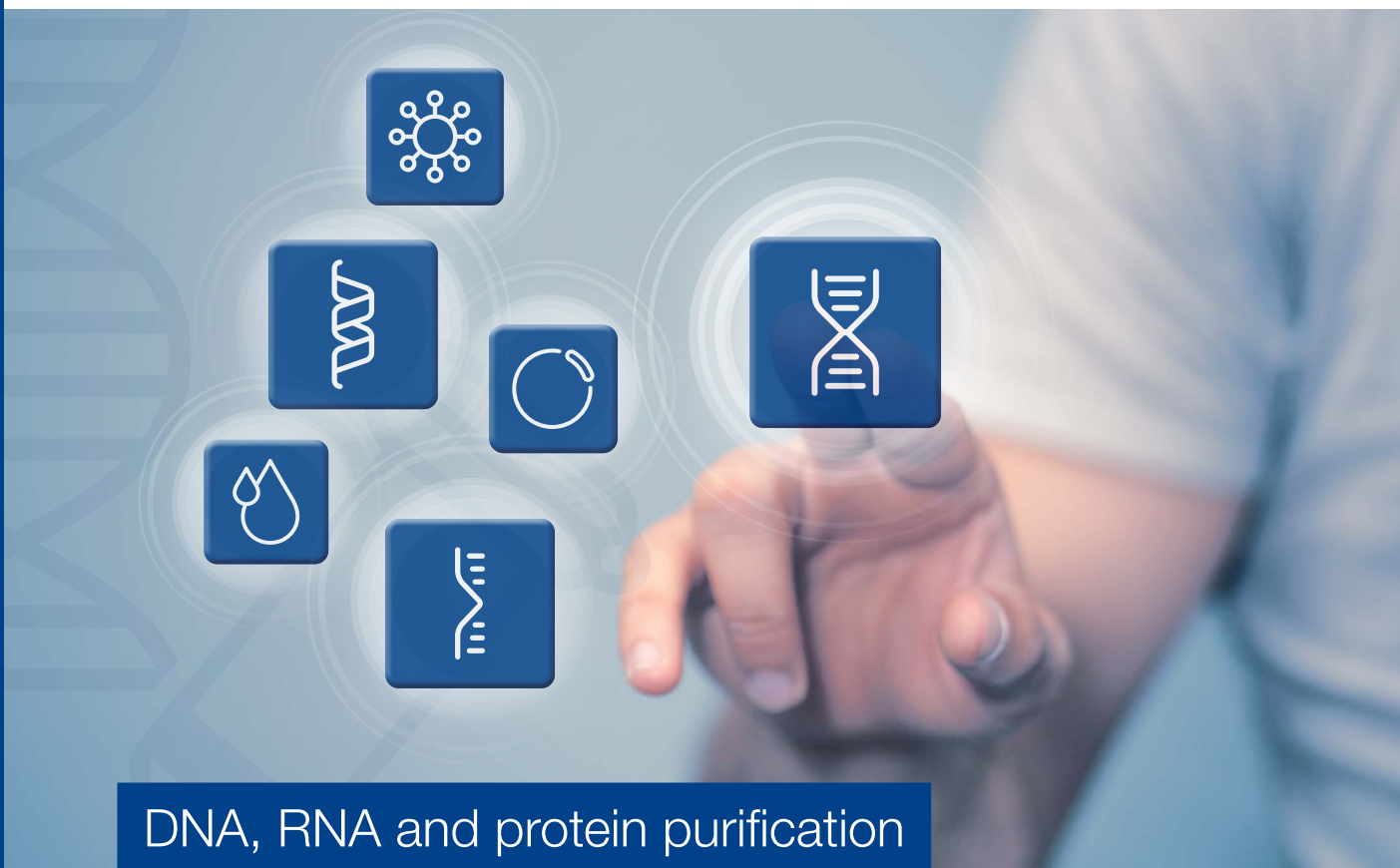


MACHEREY-NAGEL

Most Wanted Products

Bioanalysis



DNA, RNA and protein purification

- Tailored solution for every application
- Selective benchmarking for your benefit
- Outstanding quality made in Germany

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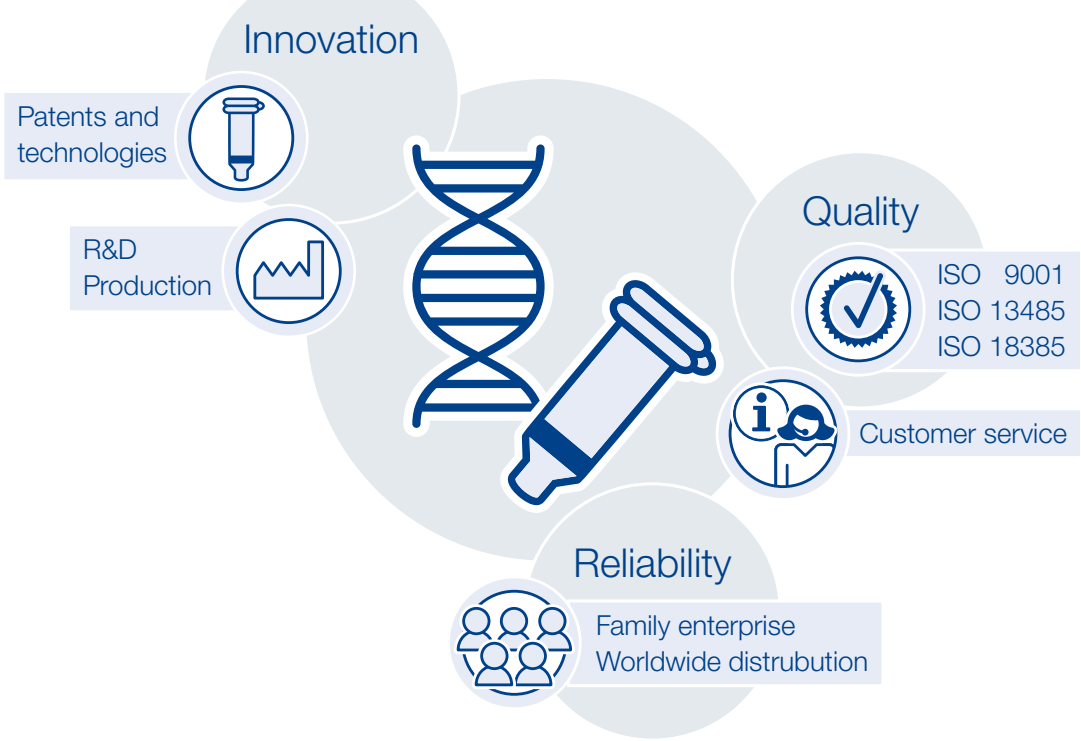
Founded in 1911, MACHEREY-NAGEL evolved into one of the leading companies in Filtration, Rapid Tests, Water Analysis, and Chromatography.

Since 1993, MACHEREY-NAGEL provides ready-to-use kits and consumables for the purification of DNA, RNA, and proteins (Bioanalysis). As pioneers in nucleic acid purification MACHEREY-NAGEL stands for innovation, quality and reliability. Our products are tailored for academic, industrial, and clinical research.



Why MACHEREY-NAGEL?
Because decision is a matter of trust!

Pioneers in Nucleic acid purification

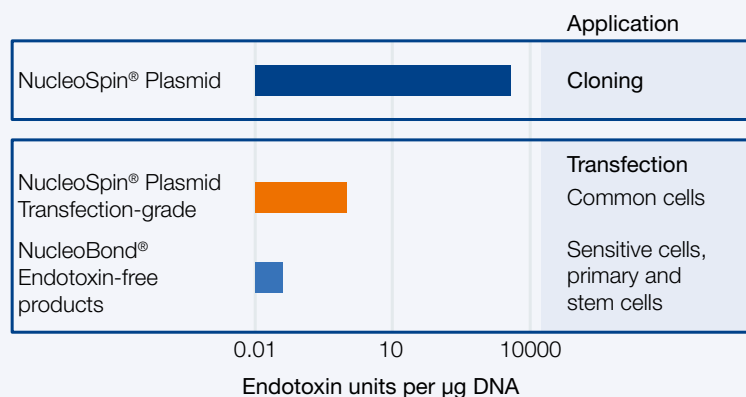


Introduction

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Good to know



Endotoxin removal

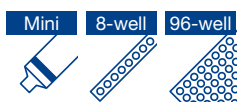
Endotoxins are co-purified during plasmid preparation from bacteria. Since they interfere with eukaryotic cell survival, endotoxin reduction is essential prior for applications like cell transfection.

A quantitative chromogenic LAL-test was used to assess endotoxin content. As indicated, the content of endotoxin is strongly dependent on the plasmid purification technology. Low endotoxin levels were detected following purification with NucleoSpin® Plasmid Transfection-grade, resulting in a plasmid solution suitable for transfection of common cells. For transfection of sensitive cells, plasmids should be purified with NucleoBond® technology. Applications like cloning or sequencing are insensitive to endotoxins and plasmids can be purified with NucleoSpin® technology.

NucleoSpin® plasmid isolation kits

■ NucleoSpin® Plasmid – The mini prep for standard applications

- The proven plasmid mini prep for molecular biology-grade DNA
- Suitable for high- and low-copy plasmids
- High yields: up to 40 μg of Plasmid DNA



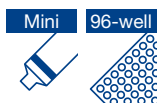
■ NucleoSpin® Plasmid EasyPure – Ultra-fast preparation of plasmid DNA

- Convenient handling due to only one combined washing and drying step
- Our fastest mini prep procedure (14 min/6 preps)
- Liquid RNase A included



■ NucleoSpin® Plasmid Transfection-grade – Mini prep plasmids even for transfections

- Our new solution for transfection-grade plasmid DNA
- Mini prep procedure with patented endotoxin removal technology (< 50 EU/ μg DNA)
- HTP version for high throughput applications available



Ordering information

Product	Preps	REF
NucleoSpin® Plasmid *	10 / 50 / 250	740588.10 / .50 / .250
NucleoSpin® Plasmid EasyPure	10 / 50 / 250	740727.10 / .50 / .250
NucleoSpin® Plasmid Transfection-grade *	10 / 50 / 250	740490.10 / .50 / .250

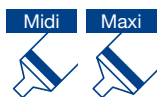
* Kits also available in 8-well strips or/and 96-well plate format (see page 12)



NucleoBond® and NucleoSnap® plasmid isolation kits

■ NucleoBond® Xtra Midi/Maxi – Classic, but fast and yielding

- Convenient lysate clearing and column loading in one step
- High yield anion exchange prep for 400 µg (Midi) and 1000 µg (Maxi) transfection-grade plasmid DNA
- Fast flow through procedure due to large column diameter



- Column filter for parallel lysate clearing and binding
- Large column diameter for high gravity flow-through rates
- Optimized anion-exchange resin for high plasmid DNA yield

■ NucleoBond® Xtra Midi/Maxi EF – Ultrapure for your transfection

- Endotoxin-free plasmid DNA (< 0.05 EU/µg DNA) for highly sensitive applications
- Up to 1 mg endotoxin-free plasmid DNA with one single maxi prep
- Protocols for low-copy plasmids available



■ NucleoSnap® Plasmid Midi – The new column design

- Isolation of 400–700µg plasmid DNA with time saving filtration technology (25 min / 6 preps)
- Innovative column design for vacuum processing of large volumes (50 mL) and elution in mini spin format (200 µL–500 µL) by centrifugation
- Endotoxin removal buffer for successful transfections



Ordering information

Product	Preps	REF
NucleoSnap® Plasmid Midi	10 / 50	740494.10 / .50
NucleoBond® Xtra Midi	10 / 50 / 100	740410.10 / .50 / .100
NucleoBond® Xtra Midi Plus *	10 / 50	740412.10 / .50
NucleoBond® Xtra Maxi	10 / 50 / 100	740414.10 / .50 / .100
NucleoBond® Xtra Maxi Plus *	10 / 50	740416.10 / .50
NucleoBond® Xtra Midi EF	10 / 50	740420.10 / .50
NucleoBond® Xtra Midi Plus EF *	10	740422.10
NucleoBond® Xtra Maxi EF	10 / 50	740424.10 / .50
NucleoBond® Xtra Maxi Plus EF *	10 / 50	740426.10 / .50

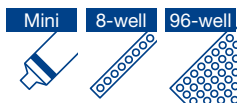
* incl. NucleoBond® Finalizer system: Time-saving syringe filter technology for DNA desalting and concentration without centrifugation



Gel/PCR and Sequencing DNA clean-up kits

■ NucleoSpin® Gel and PCR Clean-up – The two-in-one kit

- One uniform binding buffer with pH indicator for indication of optimal binding conditions
- High recoveries of small fragments down to 50 bp
- Special buffers for single stranded DNA or SDS containing samples available



■ NucleoSEQ – Proven technology for big dye removal

- Gel filtration technology in a convenient spin column format
- Pre-filled single spin columns for dye-terminator removal without ethanol precipitation
- Long-term storage at room temperature



■ NucleoMag® NGS Clean-up and Size Select – Select your Fragment size

- Tunable size selection from 150 bp to 800 bp of Next Generation Sequencing library preparation reactions
- Magnetic-bead technology allows for scalability in manual and automated workflows



Ordering information

Product	Preps	REF
NucleoSpin® Gel and PCR Clean-up *	10 / 50 / 250	740609.10 / .50 / .250
NucleoSEQ®	10 / 50 / 250	740523.10 / .50 / .250
NucleoMag® NGS Clean-up and Size Select	5 / 50 / 500 mL	744970.5 / .50 / .500

* Kits also available in 8-well strips and 96-well plate format (see page 12)

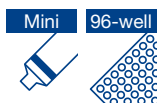


Genomic DNA purification products

Genomic DNA isolation kits

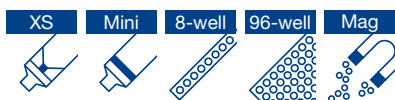
■ NucleoSpin® DNA RapidLyse – Faster, easier and superior results

- Very fast and powerful lysis of gDNA from cells, tissues and organs
- Processing time of 1 h or less, due to unique lysis chemistry
- Superior gDNA yields compared to standard extraction methods



■ NucleoSpin® Tissue – The proven allrounder for your gDNA Isolation

- More than 16 supplementary protocols for a huge variety of starting materials
- From Mini XS columns for > 0.025 mg sample material to high throughput formats
- Proteinase K included



■ NucleoSpin® Blood – Flexible use and reliable results

- Suitable for all blood stabilization substances (e.g., citrate, EDTA, heparin, CPDA)
- Pathogen detection by isolation of viral DNA or bacterial DNA from 200 µL up to 10 mL blood samples
- Complete removal of PCR inhibitors allows reliable processing



Ordering information

Product	Preps	REF
NucleoSpin® Tissue XS	10/50/250	740901.10/.50/.250
NucleoSpin® Tissue *	10/50/250	740952.10/.50/.250
NucleoSpin® Blood *	10/50/250	740951.10/.50/.250

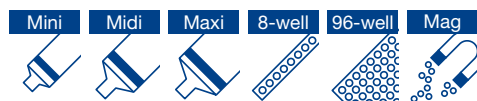
* Kits also available in 8-well strips/ 96-well plate and magnetic bead based format (see page 12)



Genomic DNA isolation kits

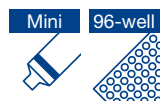
■ NucleoSpin® Plant II – Cover all your plant applications

- Comprehensive compatibility with diverse plant materials due to a selectable lysis buffer chemistry including CTAB or SDS
- NucleoSpin® Filters for lysate clarification and RNase A included
- Flexible sample amount from 100 mg tissue (Mini), 400 mg (Midi) up to 1500 mg (Maxi)



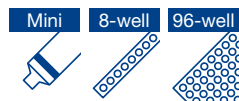
■ NucleoSpin® Soil – Select your way for pure DNA

- Alternative lysis systems to obtain highest yield from diverse samples
- Ceramic beads included for most efficient cell disruption to obtain up to 10 µg DNA/500 mg soil
- NucleoSpin® Inhibitor Removal Column to remove PCR inhibitors completely



■ NucleoSpin® Food – Find out what's inside your food

- Complete removal of PCR inhibitors from various sample materials
- Even low amounts of partially degraded DNA be purified from complex matrices
- Isolate DNA from up to 200 mg sample material from single prep to HTP



Ordering information

Product	Preps	REF
NucleoSpin® Plant II *	10 / 50 / 250	740770.10 / .50 / .250
NucleoSpin® Plant II Midi	20	740771.20
NucleoSpin® Plant II Maxi	10	740772.10
NucleoSpin® Soil *	10 / 50 / 250	740780.10 / .50 / .250
NucleoSpin® Food *	10 / 50 / 250	740945.10 / .50 / .250

* Kits also available in 8-well strips or/and 96-well plate and magnetic bead based format (see page 12)



RNA isolation kits

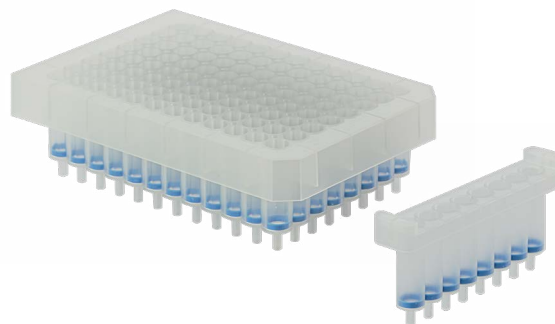
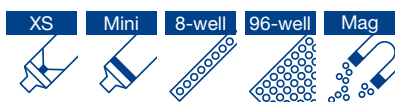
NucleoSpin® RNA Plus – Ultrafast and convenient

- Lysate clearing and gDNA removal with one column only
- No time-consuming rDNase digestion necessary (20 min/6 preps)
- New efficient lysis buffer, no β -mercapthoethanol or TCEP necessary



NucleoSpin® RNA – The Mini prep for your standard applications

- High integrity RNA from various sample types
- NucleoSpin® Filters included for efficient sample homogenization
- RNA Isolation from Mini XS columns for < 5 mg sample material to HTP applications



NucleoSpin® miRNA –The most selective way to get your miRNA

- Parallel isolation of small (<200 nt) and large (>200 nt) RNA from various sample types
- Excellent RNA recovery and purity by chaotropic salt lysis without phenol/chloroform (patent pending)
- Additional isolation of total protein fraction ready to use for SDS-PAGE and Western blot analysis



Ordering information

Product	Preps	REF
NucleoSpin® RNA Plus	10 / 50 / 250	740984.10 / .50 / .250
NucleoSpin® RNA *	10 / 50 / 250	740955.10 / .50 / .250
NucleoSpin® RNA XS	10 / 50 / 250	740902.10 / .50 / .250
NucleoSpin® miRNA	10 / 50 / 250	740971.10 / .50 / .250

* Kits also available in 8-well strips/ 96-well plate and magnetic bead based format (see page 12)



RNA isolation kits

■ NucleoZOL® – The new generation of liquid RNA isolation

- High yield total RNA extraction from all kind of samples
- No chloroform, no phase separation: easy and safe procedure
- Flexible protocol allows fast (< 1 h) isolation of total RNA in one fraction or two separate small (10-200 nt) and large (>200 nt) fractions

Reag



■ NucleoSpin RNA Set for NucleoZOL® – Speed up your experiment

- Mini spin column and buffer set for the isolation of RNA from NucleoZOL lysates
- Time saving and convenient handling of NucleoZOL lysates for high concentrated eluates (60 µL).
- Superior RNA yields due to the efficient NucleoZOL lysis with a typical recovery of 85-95%

Mini



Ordering information

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

* NucleoZOL not included

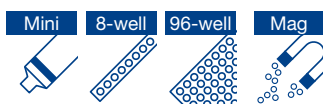
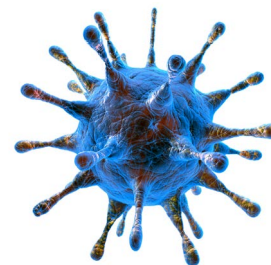


Pathogen nucleic acid isolation products

Pathogen nucleic acid isolation kits

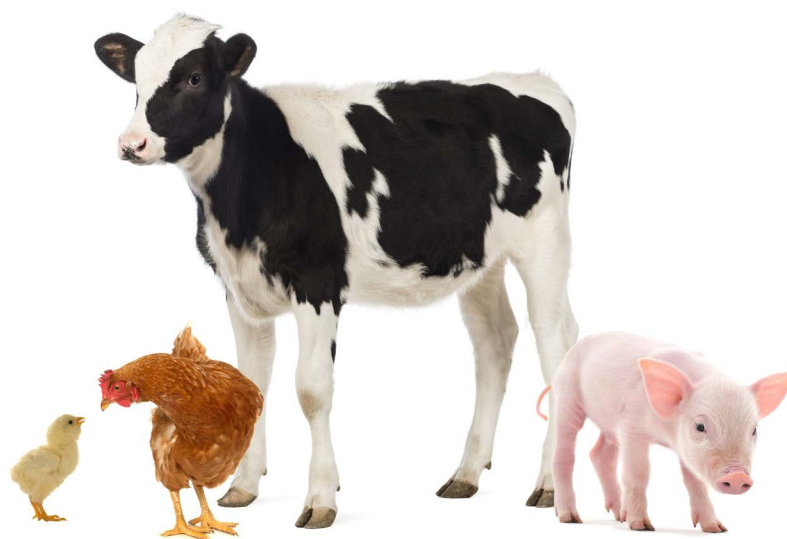
■ NucleoSpin® Virus – One kit for viral RNA and DNA

- Reliable virus extraction from cell-free biological fluids like fresh or frozen serum / plasma treated with EDTA or citrate
- Purification of human or animal viral RNA and DNA from up to 400 µL biological fluids
- Highest sensitivity for DNA and RNA viruses e.g. HIV, HPV, H5N1, HCV, HBV, BTV...



■ NucleoMag® VET – The Allround kit for veterinary diagnostics

- Purification of viral RNA / DNA, parasites and bacterial DNA from all common veterinary sample materials
- Magnetic-bead-based technology for scalable and highly sensitive requirements
- Processing time: 45–120 min/96 preps (45 min for KingFisher® Flex)



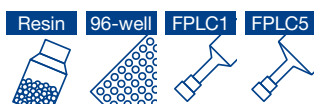
Ordering information

Product	Preps	REF
NucleoSpin® Virus *	10 / 50 / 250	740983.10 / .50 / .250
NucleoMag® VET	1 x 96 / 4 x 96	744200.1 / .4

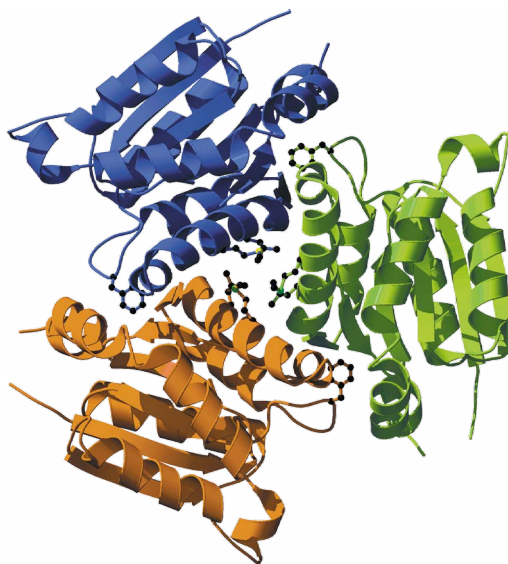
* Kits also available in 8-well strips/ 96-well plate and magnetic bead based format (see page 12)

Purification of His-tag proteins

- **Protino® Ni-NTA Agarose** – Save money without compromises
 - Simply replace your current Ni-NTA products, no optimization or protocol change necessary
 - Suitable for small proteins, large protein complexes, proteins with low expression rates – universal use
 - Aqueous suspension for batch binding, gravity flow, and FPLC™ applications (1mL / 5mL)



- **Protino® Glutathione Agarose 4B** - Market-leading performance
 - Best choice for cost-effective GST-tag protein purification
 - Equivalent to Glutathione Sepharose™ 4B / GSTrap™ 4B columns – no protocol change
 - High binding capacity with up to 8 mg/mL



Ordering information

Product	Preps	REF
Protino® Ni-NTA Agarose *	25 / 100 / 500 mL	745400.25 / .100 / .500
Protino® Glutathione Agarose 4B *	10 / 100 mL	745500.10 / .100













* Kits also available as ready-to-use and filled 1 mL FPLC and 5 mL FPLC columns (see page 12)

High throughput formats

Ordering information

Product	Preps	REF
NucleoSpin® 8 Plasmid	12 x 8 / 60 x 8	740621 / .5
NucleoSpin® 96 Plasmid	1 x 96 / 4 x 96 / 24 x 96	740625.1 / .4 / 24
NucleoSpin® 96 Plasmid Transfection-grade	1 x 96 / 4 x 96 / 24 x 96	740491.1 / .4 / 24
NucleoBond® 96 Xtra EF	1 x 96 / 4 x 96	740430.1 / .4
NucleoSpin® 8 PCR Clean-up	12 x 8 / 60 x 8	740668 / .5
NucleoSpin® 96 PCR Clean-up	1 x 96 / 2 x 96 / 4 x 96 / 24 x 96	740658.1 / .2 / .4 / .24
NucleoMag® PCR	1 x 96 / 4 x 96 / 24 x 96	744100.1 / .4 / .24
NucleoSpin® 96 DNA RapidLyse	1 x 96 / 4 x 96	740110.1 / .4
NucleoSpin® 8 Blood	12 x 8 / 60 x 8	740664 / .5
NucleoSpin® 96 Blood	1 x 96 / 4 x 96 / 24 x 96	740665.1 / .4 / .24
NucleoMag® Blood 200 µL	1 x 96 / 4 x 96	744501.1 / .4
NucleoMag® Blood 3 mL	1 x 96	744502.1
NucleoSpin® 8 Tissue	12 x 8 / 60 x 8	740740 / .5
NucleoSpin® 96 Tissue	2 x 96 / 4 x 96 / 24 x 96	740741.2 / .4 / .24
NucleoMag® Tissue	1 x 96 / 4 x 96 / 24 x 96	744300.1 / .4 / .24
NucleoSpin® 8 Plant II	12 x 8 / 60 x 8	740669 / .5
NucleoSpin® 96 Plant II	2 x 96 / 4 x 96 / 24 x 96	740663.2 / .4 / .24
NucleoMag® Plant	1 x 96 / 4 x 96 / 4 x 96	744400.1 / .4 / .24
NucleoSpin® 96 Soil	2 x 96 / 4 x 96	740787.2 / .4
NucleoSpin® 8 Food	12 x 8 / 60 x 8	740975 / .5
NucleoSpin® 96 Food	2 x 96 / 4 x 96 / 24 x 96	740976.2 / .4 / .24
NucleoSpin® 8 RNA	12 x 8 / 60 x 8	740698 / .5
NucleoSpin® 96 RNA	2 x 96 / 4 x 96 / 24 x 96	740709.2 / .4 / 24
NucleoMag® RNA	1 x 96 / 4 x 96	744350.1 / .4
NucleoSpin® 8 Virus	12 x 8 / 60 x 8	740643 / .5
NucleoSpin® 96 Virus	2 x 96 / 4 x 96	740691.2 / .4
NucleoMag® Virus	1 x 96 / 4 x 96	744800.1 / .4
Protino® 96 Ni-NTA (Protino® Ni-NTA Agarose, Protino® Purification Plate)	1 x 96 / 4 x 96	745425.1 / .4

Icon annotation:

 <p>XS Mini spin column for microcentrifuge tubes (1.5 mL or 2 mL) with a funnel shaped thrust ring for extra small elution volumes</p>	 <p>Maxi NucleoBond® Xtra Maxi / NucleoBond® AX 500 Column for gravity flow or 50 mL NucleoSpin® Maxi Column for centrifuges</p>	 <p>Mag Superparamagnetic beads</p>	 <p>FPLC5 Ready to use and prefilled 5 mL column for fast protein liquid chromatography (FPLC)</p>
 <p>Mini Mini spin column for microcentrifuge tubes (1.5 mL or 2 mL)</p>	 <p>Reag Liquid reagent solution</p>	 <p>Snap Disposable funnel container combined with a mini spin column for vacuum processing and subsequent centrifugation for elution</p>	 <p>8-well Mini spin columns in 8-well strip format</p>
 <p>Midi Midi column for gravity flow (NucleoBond® Xtra / NucleoBond® PC technology) or 15 mL midi spin columns for centrifuges</p>	 <p>Resin Insoluble bead based resin matrix</p>	 <p>FPLC1 Ready to use and prefilled 1 mL column for fast protein liquid chromatography (FPLC)</p>	 <p>96-well Mini spin columns in 96-well plate format</p>

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