Bioanalysis

MACHEREY-NAGEL

Selection Guide

For DNA, RNA, and protein purification products

- Compact overview of MN Bioanalysis products
- Technical data and product features at a glance
- Select the optimal product for your application

MACHEREY-NAGEL
www.mn-net.com

Selection Guide

RNA, DNA, and protein purification from MACHEREY-NAGEL

Since 1993 MACHEREY-NAGEL has been successfully developing, producing, and worldwide marketing a comprehensive range of ready to use kits and consumables for purification of nucleic acids (DNA and RNA) and proteins.

The company provides innovative bioseparation technologies and exceptional products for a variety of application areas: academic, industrial, clinical, CROs, veterinary diagnostics and governmental research, genomics, nucleic acid based molecular diagnostics, genetic identity (including forensics, veterinary testing, GMO detection / quantification as well as animal species differentiation), gene expression profiling, gene therapy, and proteomics.

This selection guide presents an overview of the broad portfolio of MN products for DNA, RNA, and protein purification. It serves as a guide to find the most suitable product for every application from our constantly growing range of MN Bioanalysis products.

Why choose MN for your life science application

MN is known as a reliable partner for high quality products in sample preparation. Our products cover a broad range of applications and are highly esteemed in leading laboratories worldwide. The vast experience of our research team allows MN to offer optimal solutions for changing requirements and challenges of today's life science.

How to use the selection guide

The directory on the following page provides a first overview sorted by the preferred target, sample material and intended application.

After identifying the target molecule / starting material of your personal interest, follow the corresponding numbers to select the kits which relate to your lab focus.

Selection Guide

Directory

Plasmid DNA

No.	Product	REF	Starting material (*E. coli* culture)	Format	Binding capacity[1]
■ Plasmid DNA					
Molecular biology-grade plasmid DNA					
1	■ NucleoSpin® Plasmid, ■ NucleoSpin® Plasmid (NoLid)	740588.10 / .50 / .250, 740499.10 / .50 / .250	1 – 5 mL (high copy), 6 – 10 mL (low copy)	Mini spin column	60 µg
2	■ NucleoSpin® Plasmid EasyPure	740727.10 / .50 / .250	1 – 5 mL (high copy)	Mini spin column	35 µg
3	■ NucleoSpin® 8 Plasmid, ■ NucleoSpin® 8 Plasmid Core Kit[2], ■ NucleoSpin® 96 Plasmid, ■ NucleoSpin® 96 Plasmid Core Kit[2]	740621 / .5, 740461.4, 740625.1 / .4 / .24, 740616.4 / .24	1 – 5 mL	8-well strip, 96-well plate	30 µg
4	■ NucleoSpin® 96 Flash	740618.2 / .4 / .24	1.1 – 1.3 mL (high copy), 1.1 – 3.9 mL (low copy)	96-well plate	
Transfection-grade plasmid DNA					
5	■ NucleoSpin® Plasmid Transfection-grade	740490.10 / .50 / .250	1 – 5 mL	Mini spin column	35 µg
6	■ NucleoSpin® 96 Plasmid Transfection-grade, ■ NucleoSpin® 96 Plasmid Transfection-grade Core Kit[2]	740491.1 / .4 / .24, 740492.4 / .24	1 – 5 mL	96-well plate	20 µg
7	■ NucleoSnap® Plasmid Midi	740494.10 / .50	50 mL	Snap off column (vacuum processing)	1500 µg
8	■ NucleoBond® Xtra Midi, ■ NucleoBond® Xtra Midi Plus	740410.10 / .50 / .100, 740412.10 / .50	< 200 mL (high copy), < 400 mL (low copy)	Midi gravity flow column	1000 µg
9	■ NucleoBond® Xtra Maxi, ■ NucleoBond® Xtra Maxi Plus	740414.10 / .50 / .100, 740416.10 / .50	< 600 mL (high copy), < 1200 mL (low copy)	Maxi gravity flow column	3000 µg
10	■ NucleoBond® PC 10000	740593	0,5 – 2 L (high copy), 1 – 4 L (low copy)	Giga gravity flow column	10000 µg
11	■ NucleoBond® Xtra BAC	740436.10 / .25	250 – 750 mL (low copy)	Maxi gravity flow column	150 µg
12	■ NucleoMag® Plasmid	744750.1 / .4	≤ 5 mL	Magnetic Beads	
Endotoxin-free plasmid DNA					
13	■ NucleoBond® Xtra Midi EF, ■ NucleoBond® Xtra Midi Plus EF	740420.10 / .50, 740422.10 / .50	< 200 mL (high copy), < 400 mL (low copy)	Midi gravity flow column	1000 µg
14	■ NucleoBond® Xtra Maxi EF, ■ NucleoBond® Xtra Maxi Plus EF	740424.10 / .50, 740426.10 / .50	< 600 mL (high copy), < 1200 mL (low copy)	Maxi gravity flow column	3000 µg
15	■ NucleoBond® 96 Xtra EF	740430.1 / .4	1 – 5 mL	96-well plate	50 µg
16	■ NucleoBond® PC 10000 EF	740548	500 – 2000 mL	Giga gravity flow column	10000 µg
Vaccine-grade plasmid DNA					
17	■ NucleoBond® RS 10	743502	Max. 8 g wet weight	Preparative scale	Up to 10 mg
18	■ NucleoBond® RS 50	743503	Max. 40 g wet weight	Preparative scale	Up to 50 mg
19	■ NucleoBond® RS 100	743504	Max. 80 g wet weight	Preparative scale	Up to 100 mg
20	■ NucleoBond® RS 200	743505	Max. 145 g wet weight	Preparative scale	Up to 200 mg
Plasmid DNA concentration and desalting					
21	■ NucleoSnap® Finisher Midi, ■ NucleoSnap® Finisher Maxi	740434.10 / .50, 740435.10 / .50	DNA eluate	Snap off column (vacuum processing)	1.5 mg
22	■ NucleoSpin® Finisher Midi	740439.10 / .50	DNA eluate	Funnel column (centrifuge processing)	1.5 mg
23	■ NucleoBond® Finalizer, ■ NucleoBond® Finalizer Plus	740519.20 / .100, 740520.20	5 mL DNA eluate	Syringe filter	500 µg
24	■ NucleoBond® Finalizer Large, ■ NucleoBond® Finalizer Large Plus	740418.20 / .100, 740419.20	15 mL DNA eluate	Syringe filter	2000 µg
25	■ NucleoMag® Desalting Beads	744410.50	5 mL (NucleoBond® Xtra Midi eluate), scalable	Magnetic Beads	Approx. 400 – 500 µg per 100 µL

[1] Theoretical value; [2] Kit mainly for use on automation platforms, for additional accessories and detailed information see *www.mn-net.com*

Plasmid DNA

Typical yield / recovery	Elution volume	Vector size	Approximate processing time	Features
25 – 45 µg	50 µL	< 25 kbp	20 min/6 preps	Rapid mini spin purification for high pure DNA | Efficient Wash Buffer AW for minimal protein content
15 – 30 µg	50 µL	< 25 kbp	14 min/6 preps	Ultrafast plasmid mini prep | Liquid RNase included
4 – 30 µg	75 – 150 µL	< 25 kbp	45 min/6 strips or plate	Flexible format | Flexible processing (vacuum / centrifugation / positive pressure) | Automation possible
8 µg (high copy), 1 µg (low copy)		< 250 kbp	90 min/2 plates	For large low-copy DNA e.g. BACs
15 – 30 µg	30 – 50 µL	< 25 kbp	20 min/6 preps	Patented technology for endotoxin removal | Transfection quality, ≤ 50 EU/µg DNA | Purification in mini format | Ultrafast procedure
5 – 20 µg	100 – 200 µL	< 25 kbp	45 min/plate	Novel technology to diminish endotoxin content | Transfection quality, ≤ 50 EU/µg DNA | Purification in HTP format | Ultrafast procedure
250 µg	200 – 500 µL	< 25 kbp	35 min/6 preps	Ultrafast procedure | New column design (snap off column) for vacuum processing of large sample volumes | Transfection quality, ≤ 50 EU/µg DNA
500 µg	200 – 800 µL	< 300 kbp	70 min/prep, 30 min/prep	Lysate clarification and binding in one step | NucleoBond® Xtra Midi Plus: NucleoBond® Finalizer for rapid plasmid | Automation possible | Endotoxin level of 1 – 10 EU/µg DNA
1000 µg	400 – 1000 µL	< 300 kbp	35 – 75 min/prep	Lysate clarification and binding in one step | NucleoBond® Xtra Maxi Plus: NucleoBond® Finalizer for rapid plasmid precipitation | Endotoxin level of 1 – 10 EU/µg DNA
2000 – 10000 µg		< 300 kbp	120 – 150 min/2 preps	Endotoxin level of 1 – 10 EU/µg DNA
10 – 150 µg	500 – 1000 µL	< 300 kbp	75 min/4 preps	Anion exchanger for large construct plasmid DNA (P1, BAC, Pac) | Endotoxin level of 1 – 10 EU/µg DNA | Lysate clarification and binding in one step
1 – 50 µg	50 – 200 µL	< 25 kbp	Depending on instrument type	Plasmid purification through magnetic beads
500 µg	200 – 800 µL	< 300 kbp	85 min/prep, 45 min/prep	Endotoxin level of ≤ 0.05 EU/µg DNA | NucleoBond® Xtra Midi Plus EF: NucleoBond® Finalizer for rapid plasmid precipitation | Automation possible
1000 µg	400 – 1000 µL	< 300 kbp	90 min/prep, 50 min/prep	Endotoxin level of ≤ 0.05 EU/µg DNA | NucleoBond® Xtra Maxi Plus EF: NucleoBond® Finalizer for rapid plasmid precipitation
2 – 4 µg (1.5 mL in 96-well plates), 10 – 50 µg (5 mL in glass tubes)	100 – 200 µL	< 25 kbp, < 300 kbp (without NucleoBond® Finalizer Plate)	120 min/plate	Endotoxin level of < 0.1 EU/µg DNA | NucleoBond® Filter Plate for lysate clarification, NucleoBond® Finalizer Plate for DNA precipitation
2000 – 10000 µg		< 300 kbp	180 min/2 preps	Endotoxin level of < 0.1 EU/µg DNA
8 – 10 mg	30 mL	< 300 kbp	115 min/prep	Large-scale plasmid purification for processes with high regulatory standards | Vaccine-grade plasmid DNA with endotoxin levels of ≤ 0.01 EU/µg DNA | Scalable system for up to 200 mg
40 – 50 mg	120 mL	< 300 kbp	240 min/prep	
80 – 100 mg	250 mL	< 300 kbp	415 min/prep	
160 – 200 mg	400 mL	< 300 kbp	710 min/prep	
90 – 100 %	≥ 100 µL	< 25 kbp	< 10 min/12 preps	No time consuming isopropanol precipitation | New column design (snap off column) for vacuum processing of large sample volumes
90 – 100 %	≥ 100 µL	< 25 kbp	15 min/6 preps	Fast concentration and desalting of plasmid DNA by centrifugation | No time consuming isopropanol precipitation
60 – 90 %	200 – 800 µL	2 – 50 kbp	5 min/prep	Fast plasmid precipitation | Included in the NucleoBond® Xtra Midi Plus (EF) kits | NucleoBond® Finalizer Plus: additional syringes included
60 – 90 %	400 – 1000 µL	2 – 50 kbp	5 min/prep	Fast plasmid precipitation | Included in the NucleoBond® Xtra Maxi Plus (EF) kits | NucleoBond® Finalizer Large Plus: additional syringes included
≥ 90 %	200 – 2000 µL	< 50 kbp	25 min/prep	Convenient and scalable desalting of anion exchange eluates using magnetic beads

Clean up

No.	Product	REF	Typical amount of starting material	Format	Binding capacity[1]
■ Clean up					
PCR clean up					
26	■ NucleoSpin® Gel and PCR Clean up XS	740611.10 / .50 / .250	< 200 µL PCR reaction mixture	XS spin column	5 µg
27	■ NucleoSpin® Gel and PCR Clean up	740609.10 / .50 / .250	< 400 µL PCR reaction mixture	Mini spin column	25 µg
28	■ NucleoSpin® Gel and PCR Clean up Midi	740986.20	< 4 mL PCR reaction mixture	Midi spin column	75 µg
29	■ NucleoSpin® Gel and PCR Clean up Maxi	740610.20	< 10 mL PCR reaction mixture	Maxi spin column	250 µg
30	■ NucleoSpin® 8 PCR Clean up, ■ NucleoSpin® 8 PCR Clean up Core Kit[2], ■ NucleoSpin® 96 PCR Clean up, ■ NucleoSpin® 96 PCR Clean up Core Kit[2]	740668 / .5, 740463.4, 740658.1 / .2 / .4 / .24, 740464.4	< 100 µL PCR reaction mixture	8-well strip, 96-well plate	15 µg
31	■ NucleoFast® 96 PCR Clean up Kit, ■ NucleoFast® 96 PCR Plates	743500.4, 743100.10 / .50	20 – 300 µL PCR reaction mixture	96-well plate	
32	■ NucleoMag® NGS[6] clean up and size selection	744970.5 / .50 / .500	7.5 pg – 5 µg nucleic acids	Magnetic beads	
Gel extraction					
33	■ NucleoSpin® Gel and PCR Clean up XS	740611.10 / .50 / .250	< 200 mg agarose gel	XS spin column	5 µg
34	■ NucleoSpin® Gel and PCR Clean up	740609.10 / .50 / .250	< 400 mg agarose gel	Mini spin column	25 µg
35	■ NucleoSpin® Gel and PCR Clean up Midi	740986.20	< 4 g TAE / TBE agarose gel	Midi spin column	75 µg
36	■ NucleoSpin® Gel and PCR Clean up Maxi	740610.20	< 10 g TAE / TBE agarose gel	Maxi spin column	250 µg
NGS clean up and size selection					
37	■ NucleoMag® NGS[6] clean up and size selection	744970.5 / .50 / .500	7.5 pg – 5 µg nucleic acids in NGS reaction mixture	Magnetic beads	
Genomic DNA clean up					
38	■ NucleoSpin® Inhibitor Removal Kit	740408.10 / .50	Contaminated DNA preparations from diverse sample source	Mini spin column	60 µg
39	■ NucleoSpin® gDNA Clean up XS	740904.10 / .50 / .250	< 400 µL solution containing < 2 µg DNA	XS spin column	3 µg
40	■ NucleoSpin® gDNA Clean up	740230.10 / .50 / .250	< 150 µL solution containing < 25 µg DNA	Mini spin column	50 µg
RNA clean up					
41	■ NucleoSpin® RNA Clean up XS	740903.10 / .50 / .250	< 300 µL RNA solution containing < 90 µg RNA	XS spin column	110 µg
42	■ NucleoSpin® RNA Clean up	740948.10 / .50 / .250	< 200 µL phenol / chloroform extract or reaction mixture	Mini spin column	200 µg
43	■ NucleoSpin® RNA Clean up Maxi	740910.20	< 35 mg crude RNA	Maxi spin column	35 mg
44	■ NucleoMag® NGS Clean up and Size Select	744970.5 / .50 / .500	7.5 pg – 5 µg nucleic acids	Magnetic beads	
Dye terminator removal					
45	■ NucleoSEQ®	740523.10 / .50 / .250	20 µL sequencing reaction mixture	Mini spin column	

[1] Theoretical value; [2] Kit mainly for use on automation platforms, for additional accessories and detailed information see *www.mn-net.com/HTapplications*; [3] Depending on instrument type / setup / configuration. For more detai
[6] Next generation sequencing

Clean up

Typical recovery	Elution volume	Fragment size	Approximate processing time	Features
75 – 95 %	6 – 12 µL	50 bp–approx. 20 kbp	15 min/6 preps	2 in 1 kit – PCR Clean up and gel extraction | In XS prep scale
70 – 95 %	15 – 30 µL	50 bp–approx. 20 kbp	10 min/6 preps	2 in 1 kit – PCR Clean up and gel extraction
70 – 95 %	200 – 400 µL	50 bp–approx. 20 kbp	25 min/6 preps	2 in 1 kit – PCR Clean up and gel extraction | In Midi prep scale
70 – 95 %	1000 µL	50 bp–approx. 20 kbp	30 min/6 preps	2 in 1 kit – PCR Clean up and gel extraction | In Maxi prep scale
75 – 95 %	75 – 150 µL	50 bp–10 kbp	30 min/6 strips, 45 min/plate	Flexible format | Flexible processing (vacuum / centrifugation / positive pressure) | Automation possible
40 – 95 %	25 – 100 µL	> 150 bp	20 min/plate	Fast procedure (vacuum / centrifugation) | Automation possible
≥ 80 %	10 – 100 µL		40 – 120 min/96 preps	Specific protocol for Clean up of PCR reactions
75 – 95 %	6 – 12 µL	50 bp-approx. 20 kbp	15 min/6 preps	2 in 1 kit – PCR Clean up and gel extraction | In XS prep scale
70 – 95 %	15 – 30 µL	50 bp–approx. 20 kbp	10 min/6 preps[4)]	2 in 1 kit – PCR Clean up and gel extraction
70 – 95 %	200 – 400 µL	50 bp–approx. 20 kbp	25 min/6 preps	2 in 1 kit – PCR Clean up and gel extraction | In Midi prep scale
70 – 95 %	1000 µL	50 bp–approx. 20 kbp	30 min/6 preps	2 in 1 kit – PCR Clean up and gel extraction | In Maxi prep scale
≥ 80 %	10 – 100 µL	Tunable (150 – 800 bp)	40 – 120 min/96 preps[3)]	Convenient magnetic bead technology | Easy to adjust for specific applications or sequencers | Optimal scalability for manual and automated
> 75 %	50 – 100 µL	200 bp–approx. 50 kbp	15 min/6 preps	Removal of PCR inhibitors from prepurified DNA eluates
60 – 70 %	6 – 10 µL	100 bp–approx. 50 kbp	20 min/6 preps	For small amounts of genomic DNA (e. g., forensic samples)
80 – 90 %	50 – 100 µL	100 bp–approx. 50 kbp	15 min/10 preps	Special buffer chemistry for clean up of genomic DNA
85 – 95 %	5 – 30 µL	> 200 nt	20 min/6 preps	Easy clean up and concentration of prepurified RNA
85 – 95 %	500 µL	> 200 nt	20 min/6 preps	Easy clean up of prepurified RNA Support protocol for RNA clean-up available
85 – 95 %	3 – 5 mL	> 200 nt	30 min/6 preps	Simple, fast, and convenient clean up of huge RNA amounts
≥ 70 %	10 – 100 µL	> 150 nt	40 – 120 min/96 preps [3)]	Reliable RNA Clean up after RNA purifications or enzymatic reactions, i. e. invitro transcription reactions / certified as RNase-free
	20 µL		5 min/prep (excl. hydration)	Efficient dye terminator removal

led infomation regarding the processing time and equipment (e. g., automation platform, purification manifolds), please have a look at *www.mn-net.com*.; [4)] Gel melting time excluded; [5)] Not available in the USA;

DNA

No.	Product	REF	Typical amount of starting material	Format	Binding capacity[1]
■ DNA					
DNA from blood and biological fluids					
46	■ NucleoBond® HMW DNA	740160.2 / .20	Depending on sample type	Midi gravity flow column	600 µg
47	■ NucleoSpin® Blood	740951.10 / .50 / .250	5 – 200 µL blood / serum / plasma, < 5 × 10^6 human / animal cells	Mini spin column	60 µg
48	■ NucleoSpin® Dx Blood (CE-IVD)[3]	740899.50 / .250	200 µL human blood (fresh or frozen, EDTA, citrate, or heparin treated)	Mini spin column	60 µg
49	■ NucleoSpin® Blood QuickPure	740569.10 / .50 / .250	5 – 200 µL blood / serum / plasma, < 5 × 10^6 human / animal cells	Mini spin column	50 µg
50	■ NucleoSpin® Blood L	740954.20 / .100	0.2 – 2 mL blood / serum / plasma, < 2 × 10^7 human / animal cells	Midi spin column	250 µg
51	■ NucleoSpin® Blood L Vacuum	740954.24	1 – 2 mL whole blood	Midi spin column	250 µg
52	■ NucleoSpin® Blood XL	740950.10 / .50	2 – 10 mL blood / serum / plasma, < 10^8 human / animal cells	Maxi spin column	700 µg
53	■ NucleoSpin® 8 Blood, ■ NucleoSpin® 8 Blood Core Kit[2], ■ NucleoSpin® 96 Blood, ■ NucleoSpin® 96 Blood Core Kit[2]	740664 / .5, 740455.4, 740665.1 / .4 / .24, 740456.4	< 200 µL blood / serum / plasma, < 2 × 10^6 human / animal cells	8-well strip, 96-well plate	20 µg
54	■ NucleoSpin® 8 Blood QuickPure, ■ NucleoSpin® 96 Blood QuickPure	740666 / .5, 740667.2 / .4 / .24	< 200 µL blood / serum / plasma, < 5 × 10^6 human / animal cells	8-well strip, 96-well plate	60 µg
55	■ NucleoMag® Blood 200 µL, ■ NucleoMag® Blood 3 mL	744501.1 / .4, 744502.1	< 200 µL blood (fresh or frozen, EDTA or citrate treated), < 3 mL blood (fresh or frozen, EDTA or citrate treated)	Magnetic beads	0.4 µg/µL beads
56	■ NucleoMag® Blood 200 µL Prefilled Plates	744510	≤ 200 µL blood (fresh or frozen, EDTA or citrate treated)	Magnetic beads	
cfDNA from plasma					
57	■ NucleoSpin® cfDNA XS	740900.10 / .50 / .250	< 240 µL plasma / serum, < 720 µL plasma / serum (multiple loading steps)	XS spin column	
58	■ NucleoSpin® cfDNA Midi, ■ NucleoSpin® cfDNA Midi Core Kit[2]	740303.48, 740302.48	1 – 5 mL plasma (EDTA, Cell-Free DNA BCT®)	Midi spin column	
59	■ NucleoSpin® 96 cfDNA, ■ NucleoSpin® 96 cfDNA Core Kit[2]	740873.1 / .4, 740874.1 / .4	0.5 – 2 mL plasma	96-well plate	
60	■ NucleoSnap® cfDNA	740300.10 / .50	1 – 10 mL plasma (EDTA, Cell-Free DNA BCT®)	Snap off column	
61	■ NucleoMag® cfDNA	744550.1 / .4	1 – 10 mL human plasma (EDTA, Cell-Free DNA BCT®)	Magnetic beads	
DNA from tissue and cells					
62	■ NucleoSpin® DNA RapidLyse	740100.10 / .50 / .250	< 40 mg fresh weight, < 10^6 cells	Mini spin column	60 µg
63	■ NucleoSpin® 96 DNA RapidLyse	740110.1 / .4	< 30 mg fresh weight, < 10^6 cells	96-well plate	40 µg
64	■ NucleoSpin® Tissue XS	740901.10 / .50 / .250	0.025 – 10 mg human / animal tissue, 10 – 10^4 human / animal cells, Guthrie cards (5 – 30 mm^2)	Mini spin column (XS design)	50 µg

[1] Theoretical value; [2] Kit mainly for use on automation platforms, for additional accessories and detailed information see *www.mn-net.com*; [3] Not available in the USA; [4] Depending on instrument type / setup / configuration. For

DNA

Typical yield	Elution volume	Fragment size	Approximate processing time	Features
Depending on amount and quality of sample	50 – 250 µL	2 kbp-approx. 150 kbp (enzymatic lysis)/50 kbp (mechanical lysis)	2 h/12 preps (incl. 30 min lysis)	For purification of high integrity DNA | Compatible with different sample matrices such as tissue, cells, plant leaves, bacteria, yeast, and liquid samples
4 – 6 µg (200 µL blood)	60 – 200 µL	200 bp–approx. 50 kbp	30 min/prep	High quality DNA from blood | Also suitable for DNA from plasma, serum, buffy coat, and other body fluids | Compatible with all blood stabilization substances (e. g., citrate, EDTA, heparin, CPDA)
3 – 5 µg (200 µL blood)	50 – 200 µL	200 bp–approx. 50 kbp	30 min/prep	CE-IVD marked isolation of gDNA from blood | Compatible with several blood stabilization substances (citrate, EDTA, heparin)
4 – 6 µg (200 µL blood)	30 – 50 µL	200 bp–approx. 50 kbp	25 min/prep	Fast procedure | Washing and drying combined in a single step | Compatible with all blood stabilization substances (e. g., citrate, EDTA, heparin, CPDA)
40 – 60 µg (2 mL blood)	120 – 200 µL	200 bp–approx. 50 kbp	60 min/prep	For processing of larger blood volumes 0.2 – 2 mL) | Compatible with all blood stabilization substances (e. g., citrate, EDTA, heparin, CPDA)
50 – 80 µg (2 mL blood)	600 µL	300 bp–approx. 50 kbp	75 min/24 preps	Parallel processing of 24 samples for time saving workflows (vacuum, positive pressure) | Compatible with blood stabilization substances (e. g., citrate, EDTA) | Automation possible
200 – 300 µg (10 mL blood)	600 – 2000 µL	200 bp–approx. 50 kbp	60 min/prep	For processing of large blood volumes (2 – 10 mL) | Compatible with all blood stabilization substances (e. g., citrate, EDTA, heparin, CPDA)
4 – 6 µg (200 µL blood)	100 µL	300 bp–approx. 50 kbp	35 min/6 strips (excl. lysis), 70 min/plate (excl. lysis)	Flexible format | Flexible processing (vacuum / centrifugation / positive pressure) | Automation possible | Compatible with blood stabilization substances (e. g., citrate, EDTA, heparin)
4 – 6 µg (200 µL blood)	75 – 100 µL	300 bp–approx. 50 kbp	60 min/12 strips, 60 min/2 plates	Fast procedure and flexible format | Manual processing by centrifuge | Compatible with all blood stabilization substances (e. g., citrate, EDTA, heparin, CPDA)
2 – 8 µg (200 µL blood), 100 – 130 µg (3 mL blood)	50 – 100 µL, 1000 µL	300 bp–approx. 50 kbp	40 – 120 min/96 preps[4], 60 min/24 preps[4]	Easily adapted to automated use | Compatible with blood stabilization substances (e. g., citrate, EDTA)
2 – 8 µg	100 µL	300 bp-approx. 50 kbp	30 min/32 preps (excl. lysis)	Ready-to-use plates prefilled with the buffer chemistry for the easy and rapid DNA extraction from blood | Lysis performed externally | Only compatible with MN extraction platforms [4]
25 pg–25 ng (240 µL plasma)	5 – 30 µL	≥ 50 bp	20 min/6 preps	Special buffer chemistry for cell-free DNA from plasma and serum | XS column design for elution in ≥ 5 µL for highest concentration
Depending on sample source, storage, and quality	200 µL	≥ 50 bp	90 min/24 preps	Superior recovery of fragmented cell-free DNA | Parallel purification of 24 samples | Special adapter set for NucleoVac 96 Vacuum Manifold available | Optimized protocol for Cell-Free DNA BCT® (Streck) | Automation possible
Depending on sample source, storage, and quality	100 µL	≥ 50 bp	90 min/plate	High throughput solution for cell-free DNA isolation | Optimized protocol for Cell-Free DNA BCT® (Streck) | Manual or automated processing (vacuum / centrifugation / positive pressure)
Depending on sample source, storage, and quality	20 – 100 µL	≥ 50 bp	45 min/6 preps	NucleoSnap® column for quick processing of large sample volumes by vacuum | Highly efficient recovery of nucleic acids from “Liquid Biopsies” | No Carrier RNA needed
Depending on sample source, storage, and quality	50 – 200 µL	≥ 50 bp	60 min/24 preps (excl. lysis)[4]	Consistent cfDNA recovery from 1 – 10 mL plasma samples | Efficient purification of fragmented DNA as small as 50 bp | Automation possible
1 – 30 µg (depending on sample source)	60 – 100 µL	200 bp–approx. 50 kbp	25 min/6 preps (excl. lysis)	Powerful lysis in one hour or less | Unique lysis chemistry for gDNA from cells, tissues, and organs | Superior DNA yields compared to standard extraction methods
1 – 30 µg (depending on sample source)	100 µL	200 bp–approx. 50 kbp	60 min/plate (excl. lysis)[4]	Unique lysis chemistry for DNA from a variety of sample materials in one hour or less | Manual or automated processing by vacuum, positive pressure, or centrifugation | Easy automation on robotic platforms
0.1 – 0.5 ng (10^2 HeLa cells), 10 – 50 ng (10^4 HeLa cells)	5 – 30 µL	200 bp–approx. 50 kbp	20 min/prep (excl. lysis)	Purification of genomic, bacterial, and viral DNA from smallest samples

r more detailed infomation regarding the processing time and equipment (e. g., automation platform, purification manifolds), please have a look at *www.mn-net.com*.

DNA

No.	Product	REF	Typical amount of starting material	Format	Binding capacity[1)]
65	NucleoSpin® Tissue	740952.10 / .50 / .250	< 25 mg human / animal tissue, 10^2 – 10^7 human / animal cells	Mini spin column	60 µg
66	NucleoSpin® 8 Tissue, NucleoSpin® 8 Tissue Core Kit[2)], NucleoSpin® 96 Tissue, NucleoSpin® 96 Tissue Core Kit[2)]	740740 / .5, 740453.4, 740741.2 / .4 / .24, 740454.4	< 20 mg human / animal tissue, < 10^6 human / animal cells	8-well strip, 96-well plate	40 µg
67	NucleoMag® Tissue	744300.1 / .4 / .24	< 20 mg human / animal tissue, < 10^6 human / animal cells	Magnetic beads	0.4 µg/µL beads
68	NucleoMag® Tissue Prefilled Plates	744302	< 20 mg human / animal tissue, < 10^6 human / animal cells	Magnetic beads	
69	NucleoMag® RNA/DNA Pro	744370.1	< 20 mg human / animal tissue, < 10^6 human / animal cells < 40 plant tissue	Magnetic beads	
70	NucleoSpin® DNA Lipid Tissue	740471.10 / .50	< 40 mg lipid rich tissue (e. g., brain, fish, adipose tissue)	Mini spin column	60 µg
71	NucleoSpin® DNA Insect	740470.10 / .50	< 40 mg fresh, frozen, dried, or ethanol preserved insect / crustacean sample	Mini spin column	60 µg
DNA from FFPE samples					
72	NucleoSpin® DNA FFPE XS	740980.10 / .50 / .250	≤ 7 sections (10 µm) of 250 mm^2 total area, < 15 mg paraffin	XS spin column	50 µg
73	NucleoSpin® 8 DNA FFPE, NucleoSpin® 96 DNA FFPE	740242 / .5, 740240.1 / .4	≤ 10 mg tissue / 7 sections (10 µm) of 250 mm^2 total area (< 15 mg paraffin)	8-well strip, 96-well plate	20 µg
74	NucleoMag® DNA FFPE	744320.1 / .4	≤ 5 mg tissue (< 15 mg paraffin)	Magnetic beads	0.4 µg/µL beads
DNA from forensic samples					
75	NucleoSpin® Forensic Filters, NucleoSpin® Forensic Filters (Bulk)	740988.10 / .50 / .250, 740988.50B / .250B / .1000B	Swabs, denim, cigarette butts, and other solid sample carriers	Semipermeable mini spin tube	
76	NucleoSpin® DNA Forensic	740840.10 / .50 / .250	Casework samples, contact traces (e. g., dried blood spots, cigarette filters, swabs)	Mini spin column	7 µg
77	NucleoSpin® 8 Trace, NucleoSpin® 96 Trace	740722.1 / .5, 740726.2 / .4	Casework samples, contact traces (e. g., dried blood spots, cigarette filters, swabs)	8-well strip, 96-well plate	20 µg
78	NucleoMag® DNA Forensic	744660.1 / .4	Casework samples, contact traces (e. g., dried blood spots, cigarette filters, swabs)	Magnetic beads	0.4 µg/µL beads
DNA from plant and fungi					
79	NucleoSpin® Plant II	740770.10 / .50 / .250	< 100 mg (wet weight), < 20 mg (dry weight) plant tissue	Mini spin column	50 µg
80	NucleoSpin® Plant II Midi	740771.20	< 400 mg (wet weight), < 80 mg (dry weight) plant tissue	Midi spin column	200 µg
81	NucleoSpin® Plant II Maxi	740772.10	< 1500 mg (wet weight), < 300 mg (dry weight) plant tissue	Maxi spin column	500 µg
82	NucleoSpin® 8 Plant II, NucleoSpin® 8 Plant II Core Kit[2)], NucleoSpin® 96 Plant II, NucleoSpin® 96 Plant II Core Kit[2)]	740669 / .5, 740467.4, 740663.2 / .4 / .24, 740468.4	20 – 100 mg (wet weight) plant tissue	8-well strip, 96-well plate	30 µg
83	NucleoMag® Plant	744400.1 / .4 / .24	20 – 50 mg (wet weight) plant tissue	Magnetic bead	0.4 µg/µL beads
84	NucleoMag® 384 Plant	744402.1 / .4	30 mg (wet weight)	Magnetic bead	0.2 µg/µL beads

[1)] Theoretical value; [2)] Kit mainly for use on automation platforms, for additional accessories and detailed information see *www.mn-net.com*; [3)] Depending on instrument type / setup / configuration. For more detailed infomation r

DNA

Typical yield	Elution volume	Fragment size	Approximate processing time	Features
20 – 35 µg (25 mg mouse liver)	60 – 100 µL	200 bp–approx. 50 kbp	20 min/prep (excl. lysis)	Allround genomic DNA purification kit for purification from clinical and forensic samples, tissues, cells, yeast, bacteria, or viruses
15 – 25 µg (20 mg human / animal tissue)	100 – 200 µL	300 bp–approx. 50 kbp	20 min/6 strips (excl. lysis), 60 min/plate (excl. lysis)	Flexible format | Flexible processing (vacuum / centrifugation / positive pressure) | Automation possible | Numerous support protocols facilitate processing for challenging sample materials
10 – 20 µg (20 mg human / animal tissue)	50 – 200 µL	300 bp–approx. 50 kbp	40 – 120 min/96 preps (excl. lysis)[3]	Efficient lysis and small elution volumes for highest concentrated DNA | Easily adapted to automated use
10 – 20 µg (20 mg human Magnetic beads	50 – 200 µL	300 bp–approx. 50 kbp	30 min / 32 preps (excl. lysis)	Ready-to-use plates prefilled with the buffer chemistry for the easy and rapid DNA extraction from cells and tissues | Lysis performed externally | Only compatible with MN extraction platforms [4]
Depending on sample type, quality and amount	50 – 200 µL 50 – 200 µL	300 bp–approx. 50 kbp	120 min/plate	Magnetic bead-based kit for the automated, parallel extraction of RNA and DNA
Depending on sample type, quality, and water content	25 – 200 µL	200 bp–approx. 50 kbp	35 min/6 preps	Genomic DNA from tissue with a high lipid content | Special buffer composition for efficient removal of lipids | MN Bead Tubes for efficient lysis included | Fast and convenient procedure without RNA contamination
< 25 µg (depending on sample and disruption device)	25 – 200 µL	200 bp–approx. 50 kbp	35 min/6 preps	Suitable for insect or crustacean samples | High quality DNA from fresh, frozen, dried or ethanol preserved specimen | MN Bead Tubes for efficient lysis of an exoskeleton included | Fast and convenient procedure
Depending on sample amount and quality	5 – 30 µL	50 bp–approx. 50 kbp	70 min/6 preps (excl. lysis)	Odorless paraffin removal by patented Paraffin Dissolver | No use of xylene needed | Efficient removal of crosslinks | Manual or automated processing
Depending on amount and quality of sample	100 µL	50 bp–approx. 50 kbp	60 min/6 strips or plate (excl. lysis)	Odorless paraffin removal by patented Paraffin Dissolver | No use of xylene needed | Efficient removal of cross-links | Manual or automated processing (vacuum / centrifugation / positive pressure)
Depending on amount and quality of sample	> 25 µL	300 bp–approx. 50 kbp	40 – 120 min/96 preps (excl. lysis)[3]	Odorless paraffin removal by patented Paraffin Dissolver | No use of xylene needed | Efficient removal of crosslinks | Manual or automated processing
				Semipermeable mini spin tubes for incubation and lysate separation in one tube without buffer leakage (single blistered or bulk)
1 – 3 µg from buccal swabs	50 – 100 µL		20 min/prep (excl. lysis)	Excellent DNA purity from all casework samples | Uniform buffer system for single sample (NucleoSpin® DNA Forensic) analysis and for high throughput analysis (NucleoMag® DNA Forensic) | Conformity to ISO 18385 for doubtless DNA profiling
Depending on sample amount and quality	50 – 100 µL	200 bp–approx. 50 kbp	30 min/6 strips (excl. lysis), 70 min/plate (excl. lysis)	Flexible format | Flexible processing (vacuum / centrifugation / positive pressure) | Automation possible
1 – 3 µg from buccal swabs	25 – 50 µL		40 – 120 min/96 preps (excl. lysis)[3]	Excellent DNA purity from all casework samples | Uniform buffer system for single sample (NucleoSpin® DNA Forensic) analysis and for high throughput analysis (NucleoMag® DNA Forensic) | Conformity to ISO 18385 for doubtless DNA profiling | Automation possible
1 – 30 µg (100 mg plant tissue, wet weight)	50 – 100 µL	50 bp–approx. 50 kbp	30 min/prep	Two optional lysis buffers (based on CTAB or SDS) for optimal lysis
10 – 100 µg (400 mg plant tissue, wet weight)	200 – 400 µL	50 bp–approx. 50 kbp	90 min/prep	For processing of large plant samples | NucleoSpin® Midi Filters and RNase A included
50 – 300 µg (1500 mg plant tissue, wet weight)	1000 – 2000 µL	50 bp–approx. 50 kbp	90 min/prep	For processing of larger plant samples | NucleoSpin® Maxi Filters and RNase A included
1 – 30 µg (100 mg plant tissue, wet weight)	100 – 200 µL	50 bp–approx. 50 kbp	60 min/6 strips or plate (excl. lysis)	Flexible format | Flexible processing (vacuum / centrifugation / positive pressure) | Automation possible
10 – 20 µg (50 mg plant tissue, wet weight)	50 – 200 µL	300 bp–approx. 50 kbp	40 – 120 min/96 preps (excl. lysis)[3]	Easily adapted to automated use
Depending on sample source	50 – 200 µL	300 bp–approx. 50 kbp	40 – 120 min/96 preps, 60 min/384 preps (excl. lysis)[3]	Easily adapted to automated use | Tailored preparation of DNA from plant samples in a 384-well format

egarding the processing time and equipment (e. g., automation platform, purification manifolds), please have a look at *www.mn-net.com*.

DNA

No.	Product	REF	Typical amount of starting material	Format	Binding capacity[1]
DNA from microorganisms					
85	NucleoSpin® Microbial DNA	740235.10 / .50 / .250	< 40 mg wet weight cell pellet (bacteria, yeast, fungi)	Mini spin column	60 µg
86	NucleoSpin® DNA Yeast	740236.10 / .50	< 100 mg wet weight	Mini spin column	60 µg
87	NucleoMag® DNA Bacteria	744310.1 / .4	< 40 mg (10^8 – 10^9) bacteria, < 30 mg fungi, < 40 mg other tissues	Magnetic Beads	0.4 µg/µL beads
DNA from soil and stool					
88	NucleoSpin® Soil	740780.10 / .50. / .250	< 500 mg soil / sludge / sediment	Mini spin column	50 µg
89	NucleoSpin® 8 Soil, NucleoSpin® 96 Soil	740779 740787.2 / .4	< 500 mg soil / sludge / sediment	8-well strip, 96-well plate	50 µg
90	NucleoSpin® DNA Stool	740472.10 / .50 / .250	180 – 220 mg fresh or frozen human stool (for animal stool lower amounts may be required for optimal results)	Mini spin column	50 µg
91	NucleoMag® DNA Microbiome	744330.1 / .4	(50 – 200 mg) Biofilm samples (incl. swabs), Soil, Stool	Magnetic Beads	0.4 µg/µL beads
DNA from food and feed					
92	NucleoSpin® Food	740945.10 / .50 / .250	< 200 mg food / feed	Mini spin column	30 µg
93	NucleoSpin® 8 Food, NucleoSpin® 96 Food	740975 / .5, 740976.2 / .4	< 200 mg food / feed	8-well strip, 96-well plate	30 µg
94	NucleoMag® DNA Food	744945.1 / .4	< 200 mg food / feed	Magnetic beads	0.4 µg/µL beads
DNA from water					
95	NucleoSpin® eDNA Water	740402.10 / .50	Several liters of water depending on filtration system, < 40 mL unfiltered water	XS spin column	
96	NucleoMag® DNA/RNA Water	744220.1 / .4	10 – 1000 mL	Magnetic Beads	0.4 µg/µL beads
HMW DNA from various sample types					
97	NucleoBond® HMW DNA	740160.2 / .20	Depending on sample type	Mid gravity flow column	600 µg
98	NucleoMag® HMW DNA	744160.1 / .4	Depending on sample type	Magnetic beads	
Direct PCR					
99	NucleoType Blood PCR	743201.25 / .100 / .500	Whole blood from human and animal samples / punches from blood storage cards	Transfer tools, PCR mix, Inhibitor Removal Pearls	
100	NucleoType Mouse PCR	743200.25 / .100 / .500	Mouse tail clipping (1 mm), mouse ear punch (Ø 1 mm), mouse blood (1 µL), mouse hairs (approx. 3 – 30)	Lysis Buffer, PCR mix, Liquid Proteinase K	
101	NucleoType Plant PCR	743202.25 / .100 / .500	Plant leaf (e. g., corn, tobacco, or fruit flesh)	Plant transfer tool, and PCR mix	
102	NucleoType Seed PCR	743203.25 / .100 / .500	Hard plant material (e. g., soybeen, wheat, corn, rice, moss, fern leaf, or fir needle)	Lysis buffer P, PCR mix, and Liquid Proteinase K	

[1] Theoretical value; [2] Kit mainly for use on automation platforms, for additional accessories and detailed information see *www.mn-net.com*; [3] Depending on instrument type / setup / configuration. For more detailed infomation r

DNA

Typical yield	Elution volume	Fragment size	Approximate processing time	Features
Depending on sample type and disruption; approx. 5 – 25 µg (30 mg wet weight)	100 – 200 µL	200 bp–approx. 50 kbp	35 min/prep	Suitable for a large variety of starting materials | MN Bead Tubes for efficient lysis included | Fast and easy procedure | Liquid Proteinase K included, no additional enzyme required
Up to 20 µg	100 – 200 µL	200 bp–approx. 50 kbp	35 min/preps	Isoaltion of total DNA from yeast and fungi | MN Bead Tubes Type C included
Depending on amount and quality of sample	50 – 100 µL	300 bp–approx. 50 kbp	40 – 120 min/96 preps (excl. lysis)	Magnetic bead based kit for the isolation of genomic DNA from bacteria and yeast | Easily adapted to automated use
2 – 10 µg (500 mg soil)	30 – 100 µL	50 bp–approx. 50 kbp	90 min/10 preps	Two lysis buffers and a special additive for optimal lysis and complete removal of inhibitors | MN Bead Tubes and NucleoSpin® Inhibitor Removal Column included
2 – 10 µg (500 mg soil)	100 – 200 µL	50 bp–approx. 50 kbp	150 min/6 strips or plate	MN Bead Tubes and NucleoSpin® Inhibitor Removal Strips / Plate included
2 – 10 µg (depending on sample and disruption device)	30 – 100 µL	200 bp–approx. 50 kbp	60 min/10 preps	Suitable for any stool sample – high quality DNA from stool from carnivores, omnivores, and herbivores | MN Bead Tubes for efficient lysis included | NucleoSpin® Inhibitor Removal Columns ensure highest purity of the isolated DNA
Depending on amount and quality of sample	50 – 200 µL	300 bp–approx. 50 kbp	40 – 120 min/96 preps, depending on instruments/ automation used	Isolation of genomic DNA from microorganisms in soil, stool and biofilm (swab) samples | Easily adapted to automated use
0.1 – 10 µg (200 mg food)	100 µL	300 bp–approx. 50 kbp	30 min/6 preps	Suitable for complex food matrices | Removal of PCR inhibitors
0.1 – 10 µg (200 mg food)	100 – 200 µL	300 bp–approx. 50 kbp	60 min/6 strips (excl. lysis), 120 min/plate (excl. lysis)	Flexible format | Flexible processing (vacuum / centrifugation / positive pressure) | Automation possible | Removal of PCR inhibitors
0.1 – 10 µg (depending on sample type)	50 – 200 µL	300 bp–approx. 50 kbp	40 – 120 min/96 preps (excl. lysis)[3]	Suitable for species identification / GMO detection | Extraction of DNA from contaminating bacteria (food safety) | Kit chemistry allows full sample flexibility | Removal of PCR inhibitors for enhanced results | Get even low amounts of partially degraded DNA from complex matrices | Easily adapted to automated use
Depending on amount and quality of sample	100 µL		< 70 min (excluding water filtration)	For the isolation of eDNA from milliliter to liters of environmental water samples
Depending on amount and quality of sample	50 – 250 µL	300 bp–approx. 50 kbp	40 – 120 min/96 preps (excl. lysis)	Flexible magnetic bead based isolation of DNA and RNA from water and air samples | Easily adapted to automated use
Depending on amount and quality of sample	50 – 250 µL	2 kbp–approx. 150 kbp	2 h/12 preps (incl. 30 min lysis)	For purification of high integrity DNA | Compatible with different sample matrices such as tissue, cells, plant leaves, bacteria, yeast, and liquid samples
Depending on amount and quality of sample	100 – 200 µL	≥ 50 kb – up to 100 – 200 kb	60 – 120 min/48 preps depending on manual or automated processing	
		Recommended for up to 1 kbp	< 1 min, 30 – 90 min PCR cycling (depending on cycler protocol)	Pretreatment of challenging blood samples with Inhibitor Removal Pearls | Transfer of blood aliquot with the Blood Transfer Tool
		Recommended for up to 1 kb	5 min/prep (DNA release) 30 – 90 min PCR cycling (depending on cycler protocol)	Kit for rapid mouse typing experiments with common samples such as tail clips, ear punch, hair, and blood | Efficient lysis buffer allows DNA preparation within 5 minutes | HotStart PCR Master Mix with agarose gel loading dye included
		Recommended for up to 1 kb	< 1 min, 30 – 90 min PCR cycling (depending on cycler protocol)	Direct PCR | Transfer of plant leaf aliquot with Plant Transfer Tool (PTT) directly into PCR Mix
		Recommended for up to 2 kb	5 min/prep (DNA release, 30 – 90 min PCR cycling (depending on cycler protocol)	Simple sample preparation in less than 5 min | Optimized Lysis Buffer P | Proteinase K included

egarding the processing time and equipment (e. g., automation platform, purification manifolds), please have a look at *www.mn-net.com*.; [4] Not available in the USA

RNA

No.	Product	REF	Typical amount of starting material	Format	Binding capacity[1]
■ RNA					
RNA from cells and tissue					
103	■ NucleoSpin® RNA	740955.10 / .50 / .250	< 5 × 10^6 cultured cells, < 10^9 bacterial cells, < 10^8 yeast cells, < 30 mg human / animal tissue	Mini spin column	200 µg
104	■ NucleoSpin® RNA Plus	740984.10 / .50 / .250	10^7 cultured cells, < 10^9 bacterial cells, < 10^8 yeast cells, < 30 mg human / animal tissue	Mini spin column	200 µg
105	■ NucleoSpin® RNA XS	740902.10 / .50 / .250	1 – 10^5 cells, < 5 mg human / animal tissue	XS spin column	110 µg
106	■ NucleoSpin® RNA Plus XS	740990.10 / .50 / .250	1 – 10^5 cells, < 5 mg human / animal tissue	XS spin column	110 µg
107	■ NucleoSpin® RNA Midi	740962.20	< 5 × 10^7 cultured cells, < 10^{10} bacterial cells, < 3 × 10^8 yeast cells, < 200 mg human / animal tissue	Midi spin column	700 µg
108	■ NucleoSpin® 8 RNA, ■ NucleoSpin® 8 RNA Core Kit[2], ■ NucleoSpin® 96 RNA, ■ NucleoSpin® 96 RNA Core Kit[2]	740698 / .5, 740465.4, 740709.2 / .4 / .24, 740466.4	< 2 × 10^6 cells, < 20 mg human / animal tissue	8-well strip, 96-well plate	100 µg
109	■ NucleoMag® RNA Pro	744360.1 / .4	Animal tissue, Cells, Plant, Tissue sections	Magnetic beads	
110	■ NucleoZOL	740404.200	Per mL NucleoZOL: < 2 – ^{106} cultured bacteria / yeast cells, < 100 mg human / animal / plant tissue, < 0.4 mL (viral) fluids	Reagent	
111	■ NucleoSpin® RNA Set for NucleoZOL	740406.10 / .50	< 500 µL NucleoZOL sample	Mini spin column	200 µg
MicroRNA					
112	■ NucleoSpin® miRNA	740971.10 / .50 / .250	< 10^7 cells, < 30 mg human / animal tissue, < 50 mg plant tissue, < 150 µL reaction mixture	Mini spin column	200 µg
113	■ NucleoSpin® miRNA Plasma	740981.10 / .50 / .250	< 300 µL plasma / serum (< 900 µL with multiple loading steps)	Mini spin column	200 µg
114	■ Exosome Precipitation Solution (Serum / Plasma)[4]	740398.2 / .12 / .60	0.1 – 1 mL serum / plasma	Buffer set	
115	■ Exosome Precipitation Solution (Urine)[4]	740399.12 / .50 / .250	1 – 10 mL urine	Buffer set	
RNA, DNA, and protein isolation					
116	■ NucleoSpin® TriPrep	740966.10 / .50 / .250	< 5 × 10^6 cells, < 30 mg human / animal tissue, < 100 mg plant tissue	Mini spin column	200 µg
117	■ NucleoSpin® RNA/Protein	740933.10 / .50 / .250	< 5 × 10^6 cells, < 30 mg human / animal tissue, < 100 mg plant tissue	Mini spin column	200 µg

[1] Theoretical value; [2] Kit mainly for use on automation platforms, for additional accessories and detailed information see *www.mn-net.com*; [3] Depending on instrument type / setup / configuration. For more detailed infomation r

RNA

Typical yield / recovery	Elution volume	Fragment size	Approximate processing time	Features
14 µg (10^6 HeLa cells), 70 µg (10^9 bacterial cells)	30 – 120 µL	> 200 nt	35 min/6 preps	rDNase and NucleoSpin® Filters included
40 – 60 µg (5 × 10^6 HeLa cells), 80 – 100 µg (20 mg mouse liver), 40 – 70 µg (20 mg mouse kidney), 30 – 60 µg (5 mg mouse spleen)	30 – 120 µL	> 200 nt	20 min/6 preps	Filtration and DNA removal in one step with the NucleoSpin® gDNA Removal Column | No ß-mercaptoethanol / TCEP necessary
0.1 – 1.5 ng (10^2 HeLa cells), 1 – 1.5 µg (10^5 HeLa cells)	5 – 30 µL	> 200 nt	35 min/6 preps	For smallest samples | rDNase and NucleoSpin® Filters included | No ß-mercapthoethanol
0.5 – 2 µg (10^5 HeLa cells), 0.05 – 0.2 ng (10 HeLa cells), 2.5 – 8 ng (0.5 µg mouse liver), 0.1 – 0.5 ng (0.5 µg mouse brain)	5 – 30 µL	> 100 nt	18 min/6 preps	For extra small samples down to single cell analysis | gDNA removal column – no DNA digestion needed | No ß-mercapthoethanol or TCEP | XS columns allow elution in 5 µL for highest RNA concentration
620 µg (4 × 10^7 HeLa cells)	500 – 1000 µL	> 200 nt	80 min/4 preps	Large scale RNA preparation | rDNase and NucleoSpin® Filters included
20 µg (2 × 10^6 HeLa cells, 20 mg mouse liver)	50 – 130 µL	> 200 nt	45 min/6 strips, 70 min/plate	Flexible format | Flexible processing (vacuum / centrifugation / positive pressure) | Automation possible | rDNase included
< 30 µg	50 – 200 µL	> 200 nt	90 – 120 min/plate	rDNase included | Easily adapted to automated use | Improved performance
Total RNA: 6 – 8 µg/mg (liver), 3 – 4 µg/mg (kidney, spleen), 0.5 – 1.5 µg/mg (muscle, brain), 4 – 10 µg/10^6 (cultured cells) Large RNA: 5 – 7 µg/mg (liver), 3 – 4 µg/mg (kidney, spleen), 0.5 – 1.5 µg/mg (muscle, brain), 3 – 8 µg/10^6 (cultured cells)	Flexible	> 10 nt (total RNA), > 10 – 200 nt (small RNA), > 200 nt (large RNA)	< 1 h	No chloroform, no phase separation, easy procedure | High RNA yield and purity from any sample material | Small and large RNA in one or in separated fractions | Combination with NucleoSpin® RNA Set (mini spin columns) possible
85 – 95 % (depending on sample quality)	60 µL	> 10 nt (total RNA), > 10 – 200 nt (small RNA), > 200 nt (large RNA)	< 1 h	Total RNA (incl. miRNA) with a simple bind-wash-elute procedure | Efficient lysis, superior yields | Save time and benefit from the easy and proven handling
100 µg total RNA (10^7 HeLa cells: 10 µg small RNA, 90 µg large RNA)	30 – 100 µL	≥ 18 nt	45 min/6 preps (small and large RNA), 35 min/6 preps (small RNA only)	Optional fractionation of small and large RNA | No organic solvents | rDNase and NucleoSpin® Filters included
Depending on sample amount and quality	20 – 50 µL	≥ 18 nt	40 min/10 preps, 70 min/10 preps (incl. DNA digestion)	Efficient purification of RNA | Optional co-isolation of cfDNA
			45 min/6 preps	RNA purification from exosomes | Simple and efficient precipitation of exosomes | No ultracentrifugation | Flexible scale | Ideal for subsequent nucleic acid purification with NucleoSpin® miRNA Plasma
			45 min/6 preps	RNA purification from exosomes | Simple and efficient precipitation of exosomes | No ultracentrifugation | Flexible scale | Ideal for subsequent nucleic acid purification with NucleoSpin® miRNA Plasma
< 70 µg RNA, < 6 µg DNA, < 1200 µg protein	40 – 120 µL (RNA), 100 µL (DNA), 10 – 100 µL (protein)	> 200 nt (RNA), < 30 kbp (DNA), 15 – 300 kDa (protein)	30 min/6 preps (RNA), 45 min/6 preps (RNA and DNA), +35 min/6 preps (protein)	RNA, DNA, and proteins - three molecules in separate fractions | One procedure
< 70 µg RNA, < 1200 µg protein	40 – 120 µL (RNA), 10 – 100 µL (protein)	> 200 nt (RNA), 15 – 300 kDa (protein)	30 min/6 preps (RNA), +35 min/6 preps (protein)	RNA and proteins - two molecules in separate fractions | One procedure

egarding the processing time and equipment (e. g., automation platform, purification manifolds), please have a look at *www.mn-net.com*.; [4] Not available in the USA

RNA

No.	Product	REF	Typical amount of starting material	Format	Binding capacity[1]
RNA, DNA, and protein isolation					
118	NucleoSpin® RNA/DNA Buffer Set	740944	See NucleoSpin® RNA, NucleoSpin® RNA XS, NucleoSpin® miRNA, NucleoSpin® RNA Blood, NucleoSpin® RNA Plant, NucleoSpin® RNA/Protein	Buffer set	
RNA from blood					
119	NucleoSpin® Dx RNA Blood (CE-IVD)	740201.50	1200 µL stabilized blood (S-Monovette RNA Exact)	Mini spin column	200 µg
120	NucleoSpin® RNA Blood	740200.10 / .50	< 400 µL whole blood (fresh or frozen)	Mini spin column	200 µg
121	NucleoSpin® RNA Blood Midi	740210.20	400 – 1300 µL whole blood (fresh or frozen)	Midi spin column	700 µg
122	NucleoSpin® 8 RNA Blood, NucleoSpin® 96 RNA Blood	740220 / .5, 740225.2 / .4	< 400 µL whole blood (fresh or frozen)	8-well strip, 96-well plate	100 µg
Total RNA from FFPE samples					
123	NucleoSpin® totalRNA FFPE XS	740969.10 / .50 / .250	< 10 sections (10 µm) with < 5 mg tissue	XS spin column	100 µg
124	NucleoSpin® totalRNA FFPE	740982.10 / .50 / .250	< 10 sections (10 µm) with < 50 mg tissue	Mini spin column	200 µg
RNA from plant and fungi					
125	NucleoSpin® RNA Plant and Fungi	740120.10 / .50 / .250	< 500 mg plant / fungal material	Mini spin column	200 µg
126	NucleoSpin® 96 RNA Plant and Fungi, NucleoSpin® 96 RNA Plant and Fungi Core Kit [2]	740128.1 / .4, 740129.4	50 – 500 mg (wet weight)	96-well plate	200 µg
127	NucleoSpin® RNA Plant	740949.10 / .50 / .250	< 100 mg plant material	Mini spin column	200 µg
RNA from soil and stool					
128	NucleoBond® RNA Soil	740140.20	< 2 g soil	Midi gravity flow column	600 µg
129	DNA Set for NucleoBond® RNA Soil	740141.20	NucleoBond® RNA Soil kit required	Buffer set	
130	NucleoBond® RNA Soil Mini	740142.10 / .50	0.25 – 0.5 g soil	Mini gravity flow column	30 µg
131	DNA Set for NucleoBond® RNA Soil Mini	740143.10 / .50	NucleoBond® RNA Soil Mini kit required	Buffer set	
132	NucleoSpin® RNA Stool	740130.10 / .50	180 – 220 mg fresh or frozen human stool (for animal stool lower amounts may be required for optimal results)	Mini spin column	200 µg
RNA stabilization					
133	NucleoProtect® RNA	740400.50 / .250 / .500	Variable	Stabilization solution	

[1] Theoretical value

RNA

Typical yield / recovery	Elution volume	Fragment size	Approximate processing time	Features
RNA yield and quality identical to NucleoSpin® RNA kits	100 µL (DNA)	< 30 kbp (DNA)	5 min/6 preps (DNA), for RNA, see NucleoSpin® RNA kits	RNA and DNA – two molecules in separate fractions | One procedure
> 1 µg (0.7 – 4.2 µg) per preparation from blood from healthy subjects	40 – 60 µL	> 200 nt	45 min/6 min	CE-IVD certified workflow for RNA purification form Sarstedt S-Monovette RNA Exact
1 – 8 µg (400 µL whole blood)	40 – 120 µL	> 200 nt	55 min/6 preps	No selective erythrocyte lysis – direct lysis of whole blood | rDNase included
4 – 26 µg (1.3 mL whole blood)	200 – 400 µL	> 200 nt	75 min/6 preps	No selective erythrocyte lysis – direct lysis of whole blood | rDNase included
1 – 8 µg (400 µL whole blood)	50 – 130 µL	> 200 nt	60 min/6 strips, 100 min/plate	No selective erythrocyte lysis – direct lysis of whole blood | rDNase included | Flexible format | Flexible processing (vacuum / centrifugation / positive pressure) | Automation possible
Depending on sample amount and quality	5 – 30 µL	> 18 nt	70 min/6 preps (90 min incl. optional rDNase digest)	Special Paraffin Dissolver (patented technology) – no xylene necessary – high decrosslinking efficiency
Depending on sample amount and quality	30 – 50 µL	> 18 nt	70 min/6 preps (90 min incl. optional rDNase digest)	Special Paraffin Dissolver (patented technology) – no xylene necessary – high decrosslinking efficiency
20 – 70 µg	50 µL	> 200 nt	25 min/6 preps	Universal kit and tailored protocols for challenging plant and fungal samples | Convenient handling and efficient isolation of high integrity RNA | NucleoSpin® RNA Plant and Fungi Filters for lysate clearing included
20 – 70 µg	100 µL	> 200 nt	50 min/plate	High-throughput RNA isolation from plant and fungal samples | NucleoSpin® RNA Plant and Fungi Filter Plate for lysate clearing included
3 – 70 µg	40 – 60 µL	> 200 nt	30 min/6 preps	Convenient handling and efficient isolation of high integrity RNA | DNase included
1 – 10 µg	100 µL	> 100 nt	60 min/6 preps	Anion exchange technology to optimize RNA yield and purity – suitable for metagenomic studies | Combination of mechanical homogenization and chemical lysis for large sample amounts
5 – 50 µg	100 µL		15 min/12 preps	Parallel preparation of RNA and DNA in one hour
0.25 – 2.5 µg	50 – 100 µL	> 100 nt	60 min/12 preps	RNA purification from soil samples for qRT-PCR analysis | Parallel preparation of RNA and DNA in one hour
1.25 – 12.5 µg	50 – 100 µL		15 min/12 preps	Parallel preparation of RNA and DNA in one hour
10 – 30 µg (varies by sample and protocol used)	100 µL	> 18 nt	70 min/10 preps	Total RNA isolation (incl. miRNA) from human and animal stool samples | No Proteinase K treatment required | NucleoSpin® PCR Inhibitor Removal Columns included
	10 x volume NucleoProtect® per sample volume			For cells, tissue, bacteria, yeast, insects, plants, buffy coat and leukocytes | Long storage times

Viral RNA and DNA

No.	Product	REF	Typical amount of starting material	Format	Binding capacity[1]
	Viral RNA and DNA				
	Viral RNA / DNA from blood, biological fluids and clinical samples				
134	NucleoSpin® Virus	740983.10 / .50 / .250	< 200 µL serum / plasma / cell-free biological fluid, < 400 µL (with two loading steps)	Mini spin column	25 µg
135	NucleoSpin® Dx Virus (CE-IVD)[4]	740895.50	150 µL serum / plasma	Mini spin column	40 µg
136	NucleoSpin® RNA Virus F	740958	< 1 mL serum / plasma / cell-free biological fluid	Funnel column	30 µg
137	NucleoSpin® 8 Virus, NucleoSpin® 8 Virus Core Kit[2], NucleoSpin® 96 Virus, NucleoSpin® 96 Virus Core Kit[2]	740643 / .5, 740451.4, 740691.2 / .4, 740452.4	< 150 µL serum / plasma / cell-free biological fluid	8-well strip, 96-well plate	40 µg
138	NucleoMag® Virus	744800.1 / .4	< 200 µL serum / plasma / cell-free biological fluid	Magnetic beads	0.2 µg/µL beads
139	NucleoSpin® Blood	740951.10 / .50 / .250	5 – 200 µL blood / serum / plasma, < 5 × 10^6 human / animal cells	Mini spin column	60 µg
	Viral RNA / DNA and bacterial DNA from clinical samples				
140	NucleoMag® Pathogen	744210.1 / .4	Fully scalable, typically < 200 µL whole blood / serum / plasma / swab wash solution / feces, < 25 mg tissue	Magnetic beads	0.4 µg/µL beads
141	NucleoMag® Pathogen Prefilled Plates	744209	< 200 µL whole blood / serum / plasma / swab wash solution / feces, < 25 mg tissue	Magnetic beads	
142	NucleoMag® Dx Pathogen	744215.4	≤ 200 µL swab wash solution / saliva	Magnetic beads	0.4 µg/µL beads
	Viral RNA / DNA and bacterial DNA from veterinary samples				
143	NucleoSpin® VET	740842.10 / .50 / .250	< 200 µL serum, plasma, cell-free biological fluids, milk, 100 µL blood, 5 – 10 mg tissue, one dry or wet swab, or approx. 100 mg feces	Mini spin column	25 µg
144	NucleoMag® VET	744200.1 / .4	< 200 µL whole blood / serum / plasma / swab wash solution / feces, < 10 – 30 mg tissue (e. g., ear notches)	Magnetic beads	0.4 µg/µL beads
145	NucleoProtect® VET Prefilled Plates	744211	< 200 µL whole blood / serum / plasma / swab wash solution / feces, < 10 – 30 mg tissue (e.g., ear notches)	Magnetic beads	
146	NucleoProtect® VET Reagent	740750.50 / .500	Animal whole blood or swab samples	Stabilization and inactivation solution	
147	NucleoProtect® VET Blood Tube	740755	1.6 mL animal whole blood	Stabilization and inactivation solution (prefilled)	
148	NucleoProtect® VET Swab Tube	740760	Animal swab samples such as oral, throat, nasal or pharyngeal swabs	Stabilization and inactivation solution (prefilled)	

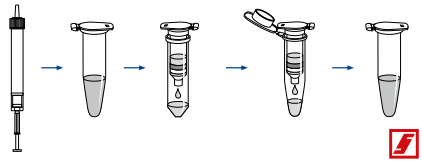
[1] Theoretical value; [2] Kit mainly for use on automation platforms, for additional accessories and detailed information see *www.mn-net.com*; [3] Depending on instrument type / setup / configuration. For more detailed infomation r

MACHEREY-NAGEL and Sarstedt

Double Power Unleashed: Partnering for Protection and Purification Excellence!

Product Overview

- Protocols available for the S-Monovette® RNA Exact in combination with NucleoSpin® RNA Blood, NucleoSpin® Dx RNA Blood and NucleoSpin® RNA Blood Midi
- Protocols available for the S-Monovette® DNA Exact in combination with NucleoSpin® Blood and NucleoMag® Blood
- Protocols available for the S-Monovette® cfDNA Exact in combination with NucleoSpin® Blood, NucleoSpin® cfDNA, NucleoSnap cfDNA and NucleoMag® cfDNA



SARSTEDT

Viral RNA and DNA

Typical yield	Elution volume	Fragment size	Approximate processing time	Features
Depending on sample amount and quality	30 µL	100 bp–approx. 50 kbp	50 min/6 preps	For RNA and DNA viruses from plasma / serum or cell-free body fluids | Carrier RNA and Liquid Proteinase K included
Depending on sample amount and quality	50 µL	100 bp–approx. 50 kbp	30 min/6 preps	CE-IVD marked | For RNA and DNA viruses from plasma and serum | Carrier RNA and Proteinase K included
Depending on sample amount and quality	50 – 100 µL	100 bp–approx. 50 kbp	45 min/6 preps	NucleoSpin® Funnel Columns: large buffer volumes, small elution volumes
Depending on sample amount and quality	70 – 100 µL	100 bp–approx. 50 kbp	60 min/6 strips or plate	Flexible format | Flexible processing (vacuum / centrifugation / positive pressure) | Automation possible | Proteinase K included
Depending on sample amount and quality	50 – 100 µL	300 bp–approx. 50 kbp	40 – 120 min/96 preps[3)]	Proteinase K included | Easily adapted to automated use
4 – 6 µg (200 µL blood)	60 – 200 µL	200 bp–approx. 50 kbp	30 min/prep	All purpose effectiveness compatible with all blood stabilization substances (e. g., citrate, EDTA, heparin, CPDA) I Suitable for pathogen detection by isolation of viral DNA or bacterial DNA from blood samples
Depending on sample amount and quality	50 – 100 µL	300 bp–approx. 50 kbp	40 – 120 min/96 preps[3)]	One kit for all common clinical sample types | High sensitivity | Reliable nucleic acid isolation – suitable even for low viral titers | Easily adapted to automated use
Depending on sample amount and quality	100 µL	300 bp–approx. 50 kbp	30 min/32 samples	Ready-to-use plates prefilled with the buffer chemistry for the easy and rapid viral DNA and RNA extraction from clinical samples | Lysis performed externally | Only compatible with MN extraction platforms [4)]
Depending on sample amount and quality	50 – 100 µL	300 bp–approx. 50 kbp	40 – 120 min/96 preps, depends on instruments / automation used	CE-IVD certified for isolation of viral RNA from oral / nasal swabs and saliva (SARS-CoV-2) | Easily adapted to automated use
≥ 80 %	< 100 µL	100 bp–approx. 50 kbp	20 – 40 min	For the isolation and purification of animal pathogen nucleic acids from veterinary materials | Support protocols available
Depending on sample amount and quality	50 – 100 µL	300 bp–approx. 50 kbp	40 – 120 min/96 preps[3)]	Allround kit for veterinary diagnostics | One tube procedure for minimal risk of cross-contamination | Easily adapted to automated use
Depending on sample amount and quality	100 µL	300 bp–approx. 50 kbp	30 min/32 samples	Ready-to-use plates prefilled with the buffer chemistry for the easy and rapid viral DNA and RNA exrtraction from veterinary samples | Lysis performed externally | Only compatible with MN extraction platforms [4)]
Depending on sample amount and quality		2.5 x NucleoProtect® volume per sample volume		Inactivation of viral pathogens in animal whole blood swab samples and preservation of nucleic acids | Not intended for human use
Depending on sample amount and quality				Blood collection tube pre-filled with 4.0 mL NucleoProtect® VET reagent | Compatible with ruminants, swine, poultry, equine blood samples
Depending on sample amount and quality				Srew cap swab collection tube pre-filled with 1.5 mL Nucleo-Protect® VET reagent | Compatible with different swab types

egarding the processing time and equipment (e. g., automation platform, purification manifolds), please have a look at *www.mn-net.com*.; [4)] Not available in the USA

Accessories

No.	Product	REF	Format	Handling
	Accessories			
	NucleoVac Manifold			
149	NucleoVac 96 Vacuum Manifold	740681	Accessories	Vacuum
150	NucleoVac 96 Regulator	740641	Accessories	Vacuum
151	NucleoVac 24 Vacuum Manifold	740299	Accessories	Vacuum
152	NucleoVac Valves	740298	Accessories	Vacuum
	Positive Pressure Frames			
153	MN Positive Pressure Frame Universal	740497	Accessories	Positive pressure, vacuum
154	MN Positive Pressure Frame MPE_2	740474	Accessories	Positive pressure, vacuum
	Magnetic Bead Separator			
155	NucleoMag® SEP Mini	744901	Accessories	Magnetic Beads
156	NucleoMag® SEP Maxi	744902	Accessories	Magnetic Beads
157	NucleoMag® SEP	744900	Accessories	Magnetic Beads
	NucleoBond® Rack			
158	NucleoBond® Rack Small	740562	Rack	Gravity Flow
159	NucleoBond® Smart Rack	740413	Rack	Gravity Flow
160	NucleoBond® Xtra Combi Rack	740415	Rack	Gravity Flow
161	NucleoBond® Rack Large	740563	Rack	Gravity Flow
162	NucleoBond® PC 10000 Rack	740599	Rack	Gravity Flow
	Plastics			
163	Collection Tubes	740600	Plastics	Centrifugation
164	MN Square-well Block	740476	Plastics	Centrifugation, Vacuum
165	Square-well Block	740481	Plastics	Vacuum, magnetic separation
166	Elution Plates, U-Bottom	740672	Plastics	Vacuum, Magnetic separation
	Bead beating			
167	MN Bead Tube Holder	740469	Mini Prep	Bead beating
168	MN Bead Tube Type A	740786.50	Mini Prep	Bead beating
169	MN Bead Tube Type B	740812.50	Mini Prep	Bead beating
170	MN Bead Tube Type C	740813.50	Mini Prep	Bead beating
171	MN Bead Tube Type D	740814.52	Mini Prep	Bead beating
172	MN Bead Tube Type E	740815.50	Mini Prep	Bead beating
173	MN Bead Tube Type F	740816.50	Mini Prep	Bead beating
174	MN Bead Tube Type G	740817.50	Mini Prep	Bead beating

Accessories

Brand	Features
NucleoSpin® 8/96	Consists of Manifold base, Lid, Spacer set, two waste containers
NucleoSpin® 8/96	Additional equipment for controlling of vacuum
NucleoSpin® NucleoSnap®	Parallel processing of 1 – 24 samples
NucleoSpin® NucleoSnap®	Regulation of individual flow rates
	Adapter frame for the direct filtration of crude lysate from NucleoSpin® Filter Plates into NucleoSpin® Binding Plates through positive pressure
	Adapter frame for the direct filtration of crude lysate from NucleoSpin® Filter Plates into NucleoSpin® Binding Plates through positive pressure | Suitable for e.g. MPE_2 Unit
NucleoMag®	For use with 12 × 1.5 mL or 2 mL reaction tubes
NucleoMag®	For use with 4 × 50 mL Falcon Tubes
NucleoMag®	For use with 96-well plates
NucleoBond®	Rack for use with NucleoBond® AX 20 Columns
NucleoBond®	Rack for use with NucleoBond® Xtra Midi / Maxi, Xtra BAC, AX 20, AX 100, AX 500, AX 2000, and AX 10000 Columns
NucleoBond®	Rack for use with NucleoBond® Xtra Midi / Maxi, Xtra BAC, AX 100, AX 500, AX 2000 and AX 10000 Columns
NucleoBond®	Rack for use with NucleoBond® AX 500, AX 2000, AX 10000, BAC 100, and Xtra Midi Columns
NucleoBond®	Rack for use with NucleoBond® PC 10000 (EF)
	Collection Tubes 2 mL without lid
	96-well blcok with base with 2.1 mL wells
	96-well block for use with NucleoMag® SEP
	96-well microplates with 300 µL
	Rubber-foam adapter for processing MN Bead Tubes with Vortex-Genie 2
	0.06 – 0.8 mm ceramic beads for soil, stool and filtered water and air samples
	40 – 400 µm glass beads for bacteria
	1 – 3 mm corundum beads for yeast and fungi
	3 mm steel beads for insect, crustacean and other tissue samples
	40 – 400 µm flass + 3 mm steel beads for bacteria within insects, crustaceans and other tissue samples
	1 – 3 mm corundum + 3 mm steel beads for challenging tissue samples
	5 mm steel beads for plant samples

More information

For more detailed information on our Accessories, check out our Accessory Guide.

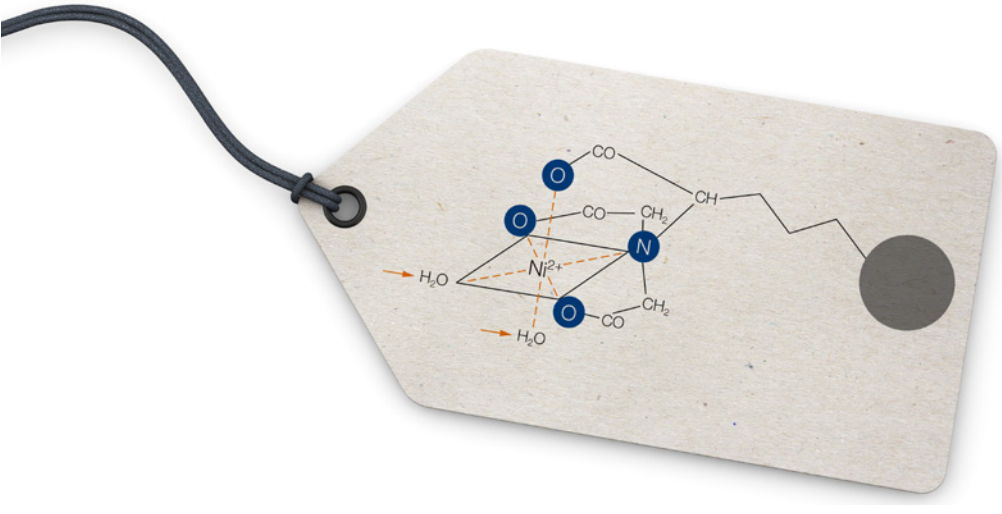
Protein purification

No.	Product	REF	Format	Binding capacity[1)]
■ Protein purification				
Purification of His-tag proteins				
175	■ Protino® Ni-NTA Agarose	745400.25 / .100 / .500	Aqueous suspension	50 mg/mL
176	■ Protino® Ni-NTA Columns 1 mL	745410.5	1 mL FPLC™ column	50 mg
177	■ Protino® Ni-NTA Columns 5 mL	745415.1 / .5	5 mL FPLC™ column	250 mg
178	■ Protino® 96 Ni-NTA	745425.1 / .4	96-well plate	2 mg/well
179	■ Protino® Ni-TED Resin	745200.5 / .30 / .120 / .600	Bulk resin	10 mg/g resin
180	■ Protino® Ni-TED 150 Packed Columns	745100.10 / .50	Mini gravity flow column	400 µg
181	■ Protino® Ni-TED 1000 Packed Columns	745110.5 / .50	Midi gravity flow column	2.5 mg
182	■ Protino® Ni-TED 2000 Packed Columns	745120.5 / .25	Maxi gravity flow column	5 mg
183	■ Protino® Ni-IDA Resin	745210.5 / .30 / .120 / .600	Bulk resin	20 mg/g resin
184	■ Protino® Ni-IDA 150 Packed Columns	745150.10 / .50	Mini gravity flow column	800 µg
185	■ Protino® Ni-IDA 1000 Packed Columns	745160.5 / .50	Midi gravity flow column	5 mg
186	■ Protino® Ni-IDA 2000 Packed Columns	745170.5 / .25	Maxi gravity flow column	10 mg
187	■ Protino® 96 Ni-IDA	745300.1 / .4	96-well plate	1 mg/well
Purification of GST-tag proteins				
188	■ Protino® Glutathione Agarose 4B	745500.10 / .100	Aqueous suspension	8 mg/mL
189	■ Protino® GST/4B Columns 1 mL	745510.5	1 mL FPLC™ column	10 mg
190	■ Protino® GST/4B Columns 5 mL	745515.1 / .5	5 mL FPLC™ column	50 mg
Porablot – Blotting Membranes				
191	■ Porablot PVDF	741260	Blotting	50 – 100 µg/cm^2 (pore size: 0.2 µm)
192	■ Porablot Nitrocellulose	74180	Blotting	100 µg/cm^2
193	■ Porablot Nitrocellulose (+ supporting tissue)	741290	Blotting	100 µg/cm^2

[1)] Protino® Ni-IDA / TED / NTA: binding capacity refers to 6xHis-GFPuv; Protino® Glutathione Agarose 4B: binding capacity will vary for each GST-tagged protein.

Protein purification

Matrix	Ligand	Features
6 % beaded agarose (crosslinked)	NTA	50 % (v/v) aqueous suspension precharged with Ni^{2+} | Suitable for batch binding, gravity flow columns, and FPLC™ applications
6 % beaded agarose (crosslinked)	NTA	Ready to use prepacked FPLC™ columns | Agarose precharged with Ni^{2+} | Male and female outlet for ÄKTA™ platform | Adaptors for other systems available
6 % beaded agarose (crosslinked)	NTA	Ready to use prepacked FPLC™ columns | Agarose precharged with Ni^{2+} | Male and female outlet for ÄKTA™ platform | Adaptors for other systems available
6 % beaded agarose (crosslinked)	NTA	Unique Protein Purification Plate | Leak-free incubation | Agarose precharged with Ni^{2+} | Suitable for centrifugation and vacuum | Automation possible
Macroporous silica	TED	Dry matrix precharged with Ni^{2+} | Suitable for batch binding, gravity flow columns, and FPLC™ applications | Unique silica concept
Macroporous silica	TED	Ready to use gravity flow columns | Matrix precharged with Ni^{2+} | Buffers included | Unique silica concept
Macroporous silica	TED	Ready to use gravity flow columns | Matrix precharged with Ni^{2+} | Buffers included | Unique silica concept
Macroporous silica	TED	Ready to use gravity flow columns | Matrix precharged with Ni^{2+} | Buffers included | Unique silica concept
Macroporous silica	IDA	Dry matrix precharged with Ni^{2+} | Suitable for batch binding, gravity flow columns, and FPLC™ applications | Unique silica concept
Macroporous silica	IDA	Ready to use gravity flow columns | Matrix precharged with Ni^{2+} | Buffers included | Unique silica concept
Macroporous silica	IDA	Ready to use gravity flow columns | Matrix precharged with Ni^{2+} | Buffers included | Unique silica concept
Macroporous silica	IDA	Ready to use gravity flow columns | Matrix precharged with Ni^{2+} | Buffers included | Unique silica concept
Macroporous silica	IDA	Ready to use gravity flow 96-well plates | Matrix precharged with Ni^{2+} | Buffers included | Unique silica concept
4 % beaded agarose	Glutathione	75 % (v/v) aqueous suspension | Suitable for batch binding, gravity flow columns, and FPLC™ applications
4 % beaded agarose	Glutathione	Ready to use prepacked FPLC™ columns | Male and female outlet for ÄKTA™ platform | Adaptors for other systems available
4 % beaded agarose	Glutathione	Ready to use prepacked FPLC™ columns | Male and female outlet for ÄKTA™ platform | Adaptors for other systems available
Polyvinylidendifluorid (PVDF)		PVDF membrane for high quality transfer membranes
100 % nitrocellulose		Nitrocellulose membrane for high quality transfer membranes
100 % nitrocellulose with inert supporting tissue		Nitrocellulose membrane for high quality transfer membranes



Selection Guide

Technologies

	Technology	Separation principle	Material	Format
NucleoBond®	Anion exchange chromatography	Solid phase extraction	Modified, macroporous silica particles	Gravity flow columns (from small to giga format) / 96-well plates
NucleoFast®	Ultrafiltration	Ultrafiltration	Ultrafiltration membrane	96-well plates
NucleoMag®	Magnetic bead technology	Chaotropic salt binding / Nucleic acid precipitation	Superparamagnetic beads (non silica)	Flexible (1 – 384)
NucleoSEQ®	Gel filtration	Size exclusion	Size exclusion matrix	Mini spin columns filled with dry matrix
NucleoSnap®	Silica membrane technology	Nucleic acid precipitation and filtration or chaotropic salt binding	Silica membrane	Snap off column
NucleoSpin®	Silica membrane technology	Chaotropic salt binding	Silica membrane	Spin columns (from extra small to extra large scale) / 8-well strips / 96-well plates
NucleoType	Sample preparation and PCR	DNA release and direct PCR	HotStart PCR Master Mix (enhancer, loading dye, and stabilizer included)	Buffer and PCR mix
Protino® Ni-IDA / TED	Affinity chromatography	Interaction between His-tag of the recombinant protein and immobilized Ni^{2+} ions, elution with imidazole	Macroporous silica with immobilized Ni^{2+}	Dry material, gravity flow columns (Midi, Midi, Maxi) / 96-well plates
Protino® Ni-NTA Agarose	Affinity chromatography	Interaction between His-tag of the recombinant protein and immobilized Ni^{2+} ions, elution with imidazole	6 % beaded agarose (cross-linked), precharged with Ni^{2+} | 50 % aqueous suspension containing 30 % ethanol	Bulk material / columns for FPLC™ / 96-well plates
Protino® Glutathione Agarose 4B	Affinity chromatography	Interaction between the GST-tag of the recombinant protein and immobilized glutathione	4 % beaded agarose with immobilized glutathione | 75 % aqueous suspension containing 20 % ethanol	Bulk resin / columns for FPLC™

You did not find what you were looking for? For technical questions, information on our products, sample kits, individual consumables and buffers, please contact us.

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KATEN300034 Product Selection Guide en10b

www.mn-net.com

MACHEREY-NAGEL

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