



High-Throughput Applications · Summary

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Medium- and High-Throughput DNA, RNA, and Protein Purification

MN offers a variety of kits for medium-throughput and high-throughput DNA, RNA, and protein purification. Our solutions are based on different technologies (NucleoSpin®: silica-membrane technology, NucleoFast®: ultrafiltration technology, NucleoMag®: magnetic-bead technology, Protino®: affinity chromatography). Kits for all applications are available for both, manual and automated use on common laboratory robotic platforms. The NucleoSpin® Core Kits are developed to be used on automation platforms. They only contain a basic content. Additional accessories can be combined as needed. For more information (application notes, consumables, etc.) and ready-to-run scripts for liquid handling platforms please refer to www.mn-net.com/HTapplications.

Summary of applications

	manual use, centrifugation	manual use, vacuum	automated use	page
<i>Plasmid DNA</i>				
NucleoSpin® 8 Plasmid	x ^{1,2}	x ^{1,3}		36
NucleoSpin® 8 Plasmid Core Kit	(x) ⁴	(x) ⁴	x ¹	36
NucleoSpin® 96 Plasmid	x ^{1,2}	x ³		36
NucleoSpin® 96 Plasmid Core Kit	(x) ⁴	(x) ⁴	x ¹	36
NucleoSpin® 96 Flash	x	x ³	x	38
<i>PCR clean-up</i>				
NucleoSpin® 8 Extract II	x ²	x	x	45
NucleoSpin® 8 Extract II Core Kit	(x) ⁴	(x) ⁴	x ¹	45
NucleoSpin® 96 Extract II	x ^{1,2}	x	x	45
NucleoSpin® 96 Extract II Core Kit	(x) ⁴	(x) ⁴	x ¹	45
NucleoFast® 96 PCR	x ¹	x	x	47
NucleoMag® 96 PCR			x ¹	48
<i>Total RNA from cells and tissue</i>				
NucleoSpin® 8 RNA	x	x ³	x	62
NucleoSpin® 8 RNA Core Kit	(x) ⁴	(x) ⁴	x ¹	62
NucleoSpin® 96 RNA	x	x ³	x	62
NucleoSpin® 96 RNA Core Kit	(x) ⁴	(x) ⁴	x ¹	62
NucleoMag® 96 RNA			x ¹	64



Medium- and High-Throughput DNA, RNA, and Protein Purification

	manual use, centrifugation	manual use, vacuum	automated use	page
<i>Genomic DNA from blood</i>				
NucleoSpin® 8 Blood	x	x ¹	x	88
NucleoSpin® 8 Blood Core Kit	(x) ⁴	(x) ⁴		88
NucleoSpin® 8 Blood QuickPure	x			90
NucleoSpin® 96 Blood	x	x	x	88
NucleoSpin® 96 Blood Core Kit	(x) ⁴	(x) ⁴	x ¹	88
NucleoSpin® 96 Blood QuickPure	x			90
NucleoMag® Blood 200 µL / 3 mL			x ¹	91
<i>Genomic DNA from tissue and cells</i>				
NucleoSpin® 8 Tissue	x ¹	x ^{1,3}	x	95
NucleoSpin® 96 Tissue	x	x ³	x	95
NucleoSpin® 96 Tissue Core Kit	(x) ⁴	(x) ⁴	x ¹	95
NucleoMag® 96 Tissue			x ¹	97
<i>Genomic DNA from forensic samples</i>				
NucleoSpin® 8 Trace	x	x	x	100
NucleoSpin® 96 Trace	x	x	x	100
NucleoMag® 96 Trace			x ¹	102
<i>Genomic DNA from plant and fungi</i>				
NucleoSpin® 8 Plant II	x	x ³	x	105
NucleoSpin® 8 Plant II Core Kit	(x) ⁴	(x) ⁴	x ¹	105
NucleoSpin® 96 Plant II	x	x ³	x	105
NucleoSpin® 96 Plant II Core Kit	(x) ⁴	(x) ⁴	x ¹	105
NucleoMag® 96 Plant			x ¹	107
<i>Genomic DNA from food and feed</i>				
NucleoSpin® 8 Food	x	x ³	x	110
NucleoSpin® 96 Food	x	x ³	x	110
<i>Viral RNA and DNA from serum and plasma</i>				
NucleoSpin® 8 Virus	x			118
NucleoSpin® 8 Virus Core Kit	(x) ⁴	(x) ⁴	x ¹	118
NucleoSpin® 96 Virus	x			118
NucleoSpin® 96 Virus Core Kit	(x) ⁴	(x) ⁴	x ¹	118
NucleoMag® 96 Virus			x ¹	120
<i>Purification of His-tag proteins</i>				
Protino® 96 Ni-IDA			manual use, gravity flow	128

1 additional material required. For details see www.mn-net.com or contact tech-bio@mn-net.com

2 support protocol available at www.mn-net.com

3 suitable centrifuge for some sample preparation steps required (e.g., lysate clearing), see next page

4 manual use of the Core Kits is possible; please inquire with Technical Service



Equipment for NucleoSpin[®], NucleoFast[®], and NucleoMag[®] kits

NucleoSpin[®] kits

NucleoSpin[®] kits based on silica-membrane technology are available in flexible 8-well strip format for varying throughput and in convenient 96-well format for high-throughput purification of DNA and RNA.

NucleoSpin[®] 8/96 kits can be processed by centrifugation or under vacuum. The unique MN Wash Plate prevents the bottom of the NucleoSpin[®] binding strips /plate from being contaminated by ethanolic wash buffers during the washing steps, thus improving the drying of the strips /plate under vacuum and preventing ethanol contamination of the eluted DNA. The risk of cross-contamination is minimized by reduced spraying during filtration and elution steps due to optimized outlets of the NucleoSpin[®] 8-well strips and NucleoSpin[®] 96-well plates.

Required hardware

Centrifugation:

For centrifugation, a microtiterplate centrifuge is required, which is able to accommodate NucleoSpin[®] strips /plate stacked on a Round-well Block, Square-well Block, or Rack of Tube Strips (bucket height: up to 85 mm*) and reaches accelerations of 5 600 – 6 000 x *g*. For processing NucleoSpin[®] 8-well strips by centrifugation Starter Set C containing Column Holders C, MN Square-well Blocks, Rack of Tube Strips is additionally required.

Vacuum processing:

A NucleoVac 96 Vacuum Manifold is required for processing under vacuum (see page 138). For processing NucleoSpin[®] 8-well strips under vacuum Starter Set A containing Column Holders A and NucleoSpin[®] Dummy Strips is required, too.

NucleoFast[®] kits

NucleoFast[®] kits can be processed by centrifugation or under vacuum. For centrifugation, a microtiterplate centrifuge is required, which is able to accommodate NucleoFast[®] Plates stacked on a suitable waste collection plate, e.g., MN Square-well Block, and reaches accelerations of 4 500 x *g*. For vacuum processing the NucleoVac 96 Vacuum Manifold or any other suitable vacuum manifold is required (see page 138).

NucleoMag[®] kits

For manual processing of NucleoMag[®] kits a suitable magnetic separator is required, e.g., NucleoMag[®] SEP (see page 138).

Protino[®] kits

Protino[®] kits are processed under gravity flow. No additional equipment is necessary.

* Height depends on application. Please inquire with Technical Service.

For further information please contact our Technical Service (tech-bio@mn-net.com) or see www.mn-net.com/HTapplications