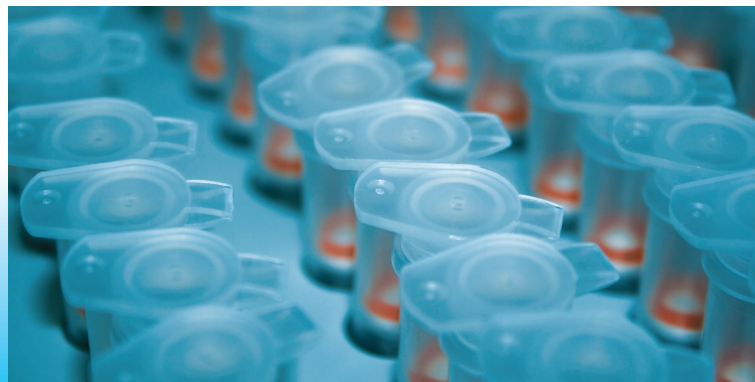


Genomic DNA

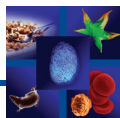
Processing of individual starting materials necessitates the combination of selective purification technologies and chemistries.

A comprehensive range of specialized MACHEREY-NAGEL DNA isolation kits enables successful genomic DNA isolation. To suit all throughput needs, MACHEREY-NAGEL's purification kits are provided in single preparation format as well as flexible medium- and efficient high-throughput formats.

<i>Circulating DNA from plasma</i>	82
<i>Genomic DNA from blood and biological fluids</i>	83
<i>Genomic DNA from tissue and cells</i>	92
<i>Genomic DNA from FFPE samples</i>	98
<i>Genomic DNA from forensic samples</i>	99
<i>Genomic DNA from plant and fungi</i>	103
<i>Genomic DNA from soil</i>	108
<i>Genomic DNA from food and feed</i>	109



www.mn-net.com/gDNA



Genomic DNA · Summary of Products



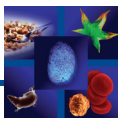
Circulating DNA from plasma

Format	Sample	Product	Page
Single prep (silica-membrane technology)			
Mini spin columns – XS design	240 µL plasma	NucleoSpin® Plasma XS	82



Genomic DNA from blood and biological fluids

Format	Sample	Product	Page
Single prep (silica-membrane technology)			
Mini spin columns	5 – 200 µL whole blood	NucleoSpin® Blood	83
		NucleoSpin® Blood QuickPure	84
Midi spin columns	200 µL – 2 mL whole blood	NucleoSpin® Blood L	86
Maxi spin columns	2 – 10 mL whole blood	NucleoSpin® Blood XL	86
Gravity-flow columns (anion-exchange chromatography)	1 – 20 mL whole blood	NucleoBond® CB	87
Single prep CE-IVD marked (silica-membrane technology)			
Mini spin columns	200 µL whole blood	NucleoSpin® Dx Blood	85
Manual and automated high throughput (HTP)			
8-well strips, 96-well plates (silica-membrane technology)	200 µL whole blood	NucleoSpin® 8/96 Blood	88
		NucleoSpin® 8/96 Blood Core Kit	
		NucleoSpin® 8/96 Blood QuickPure	90
96-well systems (magnetic-bead technology)	200 µL whole blood	NucleoMag® Blood 200 µL	91
	3 mL whole blood	NucleoMag® Blood 3 mL	



Genomic DNA · Summary of Products



Genomic DNA from tissue and cells

Format	Sample	Product	Page
Single prep (silica-membrane technology)			
Mini spin columns	<25 mg tissue, <10 ⁷ cells	NucleoSpin® Tissue	92
Mini spin columns – XS design	0.025 – 10 mg tissue, 10 – 10 ⁴ cells	NucleoSpin® Tissue XS	93
Gravity-flow columns (anion-exchange chromatography)	20 – 400 mg tissue	NucleoBond® AXG	94
Manual and automated high throughput (HTP)			
8-well strips, 96-well plates (silica-membrane technology)	<20 mg tissue, <10 ⁶ cells	NucleoSpin® 8/96 Tissue NucleoSpin® 96 Tissue Core Kit	95
96-well systems (magnetic-bead technology)	<20 mg tissue, <10 ⁷ cells	NucleoMag® 96 Tissue	97



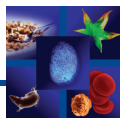
Genomic DNA from FFPE samples

Format	Sample	Product	Page
Single prep (silica-membrane technology)			
Mini spin columns – XS design	≤7 sections (10 μm) of 250 mm ² total area (<15 mg paraffin)	NucleoSpin® FFPE DNA	98



Genomic DNA from forensic samples

Format	Sample	Product	Page
Single prep (silica-membrane technology)			
Funnel columns	Forensic samples, buccal swabs	NucleoSpin® DNA Trace	99
Manual and automated high throughput (HTP)			
8-well strips, 96-well plates (silica-membrane technology)	Forensic samples, buccal swabs	NucleoSpin® 8/96 Trace	100
96-well systems (magnetic-bead technology)	Forensic samples, buccal swabs	NucleoMag® 96 Trace	102



Genomic DNA · Summary of Products



Genomic DNA from plant and fungi

Format	Sample	Product	Page
Single prep (silica-membrane technology)			
Mini spin columns	<100 mg plant tissue	NucleoSpin® Plant II	103
Midi spin columns	<400 mg plant tissue	NucleoSpin® Plant II Midi	104
Maxi spin columns	<1 500 mg plant tissue	NucleoSpin® Plant II Maxi	104
Manual and automated high throughput (HTP)			
8-well strips, 96-well plates (silica-membrane technology)	<100 mg plant tissue	NucleoSpin® 8/96 Plant II NucleoSpin® 8/96 Plant II Core Kit	105
96-well systems (magnetic-bead technology)	5 – 20 mg plant tissue	NucleoMag® 96 Plant	107



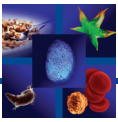
Genomic DNA from soil

Format	Sample	Product	Page
Single prep (silica-membrane technology)			
Mini spin columns	<500 µg soil, sludge, or sediment	NucleoSpin® Soil	108



Genomic DNA from food and feed








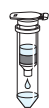

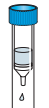


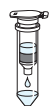
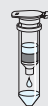
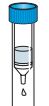




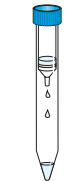

Format	Sample	Product	Page
Single prep			
Mini spin columns (silica-membrane technology)	<200 mg food	NucleoSpin® Food	109
Manual and automated high throughput (HTP)			
8-well strips, 96-well plates (silica-membrane technology)	<200 mg food	NucleoSpin® 8/96 Food	110



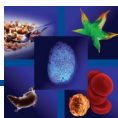
Genomic DNA · Summary of Procedures

Genomic DNA isolation Single prep

Mini spin columns		Mini spin columns – XS design				Midi spin columns		Maxi spin columns	
NucleoSpin®	page	NucleoSpin®	page	NucleoSpin®	page	NucleoSpin®	page	NucleoSpin®	page
Blood	83	Plasma XS	82	FFPE DNA	98	Blood L	86	Blood XL	86
Blood QuickPure	84	Tissue XS	93			Plant II Midi	104	Plant II Maxi	104
Dx Blood	85								
Tissue	92								
Plant II	103								
Soil	108								
Food	109								

 sample, e.g., whole blood, cultured cells, tissue, plant tissue, fungi, food samples lysis of sample material incl. homogenization	 sample, e.g., plasma, small amounts of cells, small amounts of tissue lysis of sample material incl. homogenization	 FFPE sample paraffin removal  lysis decrosslinking	 sample, e.g., whole blood, plant tissue, fungi lysis of sample material incl. homogenization	 sample, e.g., whole blood, plant tissue, fungi lysis of sample material incl. homogenization
↓	↓	↓	↓	↓
 binding	 binding	 binding	 binding	 binding
↻	↻	↻	↻	↻
 washing	 washing	 washing	 washing	 washing
↻	↻	↻	↻	↻
 elution	 elution	 elution	 elution	 elution

Silica-membrane technology



Genomic DNA · Summary of Procedures

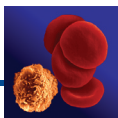
Genomic DNA isolation

Single prep

Manual and automated HTP

Funnel columns		8-well strips/96-well plates		96-well systems	
NucleoSpin®	page	NucleoSpin®	page	NucleoMag®	page
DNA Trace	99	8/96 Blood	88	Blood 200 µL / 3 mL	91
		8/96 Blood QuickPure	90	96 Tissue	97
		8/96 Tissue	95	96 Trace	102
		8/96 Trace	100	96 Plant	107
		8/96 Plant II	105		
		8/96 Food	110		

Silica-membrane technology		Magnetic-bead technology	
<p>sample, e.g., blood spots, cigarette filters, human bones</p> <p>lysis of sample material incl. homogenization</p> <p>binding</p> <p>washing</p> <p>elution</p>	<p>sample, e.g., cells, tissue</p> <p>lysis of sample material incl. homogenization</p> <p>NucleoSpin® binding strips</p> <p>NucleoSpin® binding plate</p> <p>binding</p> <p>vacuum or centrifugation</p> <p>washing drying</p> <p>vacuum or centrifugation</p> <p>elution</p>	<p>sample, e.g., cells, tissue</p> <p>lysis of sample material incl. homogenization</p> <p>binding</p> <p>washing</p> <p>elution</p>	



NucleoSpin® Plasma XS

Ideal for circulating DNA from serum and plasma

Features

For rapid purification of circulating DNA from plasma and serum

- High recovery even of fragmented DNA >50 bp
- Elution in as little as 5 µL
- Concentrated DNA even from dilute samples
- DNA ready to use for real-time PCR



Product at a glance

Technology	Silica-membrane technology
Format	Mini spin columns – XS design
Sample material	720 µL plasma or serum (multiple loading steps)
Fragment size	>50 bp
Typical yield	0.1 – 100 ng per mL plasma, depending on sample
Typical concentration	1.2 – 12 000 pg/µL, depending on sample
Elution volume	5 – 30 µL
Preparation time	High sensitivity procedure: 22 – 27 min / 6 preps Rapid procedure: 15 – 20 min / 6 preps
Procedure chart see page 80	

Applications*

- Circulating DNA from plasma or serum
- Ideal for analysis of fetal DNA from maternal plasma
- Ideal for detection of tumor markers in plasma

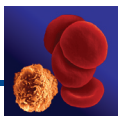
* Kits to be used for research purposes only (see page 160)

For detailed product information and application data see www.mn-net.com/DNAblood

Ordering information

Product	Preps	Specification	REF
NucleoSpin® Plasma XS	10	NucleoSpin® Plasma XS Columns with Collection Tubes, Collection Tubes (2 mL), buffers, Proteinase K	740900.10
	50	as above	740900.50
	250	as above	740900.250

For separate kit components see “Accessories” page 137



single prep

manual HTP
automated HTP

mini spin columns

mini spin columns, CE-marked
midi spin columns
maxi spin columns
gravity-flow columns



NucleoSpin® Blood

Features

For rapid purification of high-quality DNA from blood

- Ready-to-use DNA in less than 30 min
- Complete removal of PCR inhibitors
- Suitable for whole blood, treated with citrate, EDTA, heparin, CPDA
- Consistently high DNA yields
- Also suitable for isolation of viral DNA or bacterial DNA from blood samples



Product at a glance

Technology	Silica-membrane technology
Format	Mini spin columns
Sample material	5 – 200 µL whole blood, serum, plasma, body fluids <5 x 10 ⁶ cultured cells
Fragment size	200 bp – approx. 50 kbp
Typical yield	4 – 6 µg
A ₂₆₀ /A ₂₈₀	1.6 – 1.9
Typical concentration	40 – 100 ng/µL
Elution volume	60 – 200 µL
Preparation time	~30 min / prep
Binding capacity	60 µg
Procedure chart	see page 80

Applications*

- Genomic, bacterial, viral DNA isolation
- DNA from whole blood (human or animal blood, fresh or frozen)
- DNA from whole blood treated with citrate, EDTA, heparin, CPDA
- DNA from serum, plasma, buffy coat, platelets, body fluids (e.g., amniotic fluid)
- DNA from cultured cells
- Typical downstream applications: PCR, Southern blotting, enzymatic reactions

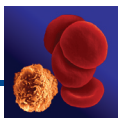
* Kits to be used for research purposes only (see page 160)

For detailed product information and application data see www.mn-net.com/DNAblood

Ordering information

Product	Preps	Specification	REF
NucleoSpin® Blood	10	NucleoSpin® Blood Columns with Collection Tubes, Collection Tubes (2 mL), buffers, Proteinase K	740951.10
	50	as above	740951.50
	250	as above	740951.250

For separate kit components see “Accessories” page 137



single prep	mini spin columns
manual HTP	mini spin columns, CE-marked
automated HTP	midi spin columns
	maxi spin columns
	gravity-flow columns



NucleoSpin® Blood QuickPure

Features

For ultra-fast purification of highly concentrated DNA from blood

- Ultra-fast procedure
- Washing and drying in one combined step (hands-on-time < 10 min)
- Consistently high DNA yields
- Elution volume only 30 – 50 µL
- Highly concentrated DNA, ready to use for sensitive downstream applications



Product at a glance

Technology	Silica-membrane technology
Format	Mini spin columns
Sample material	5 – 200 µL whole blood (human or animal, fresh or frozen), body fluids <5 x 10 ⁶ cultured cells (lymphocytes)
Fragment size	200 bp – approx. 50 kbp
Typical yield	4 – 6 µg
A ₂₆₀ /A ₂₈₀	1.6 – 1.9
Typical concentration	80 – 120 ng/µL
Elution volume	30 – 50 µL
Preparation time	~25 min / prep
Hands-on-time	< 10 min
Binding capacity	50 µg
Procedure chart see page 80	

Applications*

- DNA from whole blood (human or animal, fresh or frozen)
- DNA from whole blood treated with citrate, EDTA, heparin, CPDA
- DNA from buffy coat, platelets, body fluids (e.g., amniotic fluid), serum, plasma
- DNA from cultured cells
- Typical downstream applications: PCR, Southern blotting, enzymatic reactions

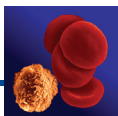
* Kits to be used for research purposes only (see page 160)

For detailed product information and application data see www.mn-net.com/DNAblood

Ordering information

Product	Preps	Specification	REF
NucleoSpin® Blood QuickPure	10	NucleoSpin® Blood QuickPure Columns with Collection Tubes, Collection Tubes (2 mL), buffers, Proteinase K	740569.10
	50	as above	740569.50
	250	as above	740569.250

For separate kit components see "Accessories" page 137



single prep	mini spin columns
manual HTP	mini spin columns, CE-marked
automated HTP	midi spin columns
	maxi spin columns
	gravity-flow columns

NucleoSpin® Dx Blood

CE-IVD marked kit

Features

For rapid purification of high-quality DNA from blood

- CE-IVD marked in accordance with EU Directive 98/79/EC
- Fits into *in-vitro* diagnostic workflows*
- Suitable for EDTA, citrate, and heparin blood from common blood collecting systems
- For fresh and frozen blood samples
- Reproducible results for reliable downstream applications
- Available as 50 prep and 250 prep kit



Product at a glance

Technology	Silica-membrane technology
Format	Mini spin columns
Sample material	200 µL whole blood (fresh or frozen, EDTA, citrate, or heparin treated)
Typical yield	3 – 5 µg (depending on individual blood sample)
A ₂₆₀ /A ₂₈₀	1.9 – 2.1
Typical concentration	40 – 60 ng/µL
Elution volume	50 – 200 µL
Preparation time	~30 min / prep
Procedure chart	see page 80

Applications

- Isolation of gDNA from 200 µL whole blood samples
- Compatible with common blood collection tubes and anticoagulants
- CE-IVD marked kit, DNA to be used with any downstream application employing enzymatic amplification and detection of DNA (e.g., PCR)

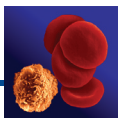
* CE-IVD marked kit: not available in all countries, please inquire.

For detailed product information and application data see www.mn-net.com/DNAblood

Ordering information

Product	Preps	Specification	REF
NucleoSpin® Dx Blood	50	NucleoSpin® Dx Blood Columns with Collection Tubes, Collection Tubes (2 mL), Elution Tubes (1.5 mL), Lysis Tubes (1.5 mL), buffers, Proteinase K	740899.50
	250	as above	740899.250

For separate kit components see “Accessories” page 137



single prep	mini spin columns
manual HTP	mini spin columns, CE-marked
automated HTP	midi spin columns
	maxi spin columns
	gravity-flow columns

NucleoSpin® Blood L / XL

Features

For rapid large scale purification of DNA from blood

- Ready-to-use DNA in less than 60 min
- Complete removal of PCR inhibitors
- Suitable for whole blood, treated with citrate, EDTA, heparin, CPDA
- Consistently high DNA yields



Product at a glance

	NucleoSpin® Blood L	NucleoSpin® Blood XL
Technology	Silica-membrane technology	
Format	Midi spin columns	Maxi spin columns
Sample material	0.2 – 2 mL whole blood 2 x 10 ⁷ cultured cells	2 – 10 mL whole blood 10 ⁸ cultured cells
Fragment size	200 bp – approx. 50 kbp	200 bp – approx. 50 kbp
Typical yield	40 – 60 µg	200 – 300 µg
A ₂₆₀ /A ₂₈₀	1.6 – 1.9	1.6 – 1.9
Typical concentration	200 – 500 ng/µL	200 – 500 ng/µL
Elution volume	120 – 200 µL	600 – 1 000 µL
Preparation time	~60 min / prep	~60 min / prep
Binding capacity	250 µg	700 µg
Procedure chart see page 80		

Applications*

- DNA from whole blood (human or animal blood, fresh or frozen)
- DNA from whole blood treated with citrate, EDTA, heparin, CPDA
- DNA from serum, plasma, buffy coat, platelets, body fluids (e.g., amniotic fluid)
- DNA from cultured cells
- Typical downstream applications: PCR, Southern blotting, enzymatic reactions

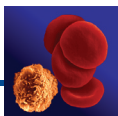
* Kits to be used for research purposes only (see page 160)

For detailed product information and application data see www.mn-net.com/DNAblood

Ordering information

Product	Preps	Specification	REF
NucleoSpin® Blood L	20	NucleoSpin® Blood L Columns with Collection Tubes, Collection Tubes (15 mL), buffers, Proteinase K	740954.20
NucleoSpin® Blood XL	10	NucleoSpin® Blood XL Columns with Collection Tubes, Collection Tubes (50 mL), buffers, Proteinase K	740950.10
	50	as above	740950.50

For separate kit components see "Accessories" page 137



single prep	mini spin columns
manual HTP	mini spin columns, CE-marked
automated HTP	midi spin columns
	maxi spin columns
	gravity-flow columns



NucleoBond® CB

Features

The anion exchanger for purification of up to 500 µg genomic DNA from whole blood

- Ultra-pure genomic DNA from different samples
- Kits for 100 – 500 µg genomic DNA
- Sample size up to 20 mL whole blood
- High molecular weight DNA up to 300 kbp



Product at a glance

	NucleoBond® CB 20	NucleoBond® CB 100	NucleoBond® CB 500
Technology	Anion-exchange chromatography		
Format	Mini gravity-flow columns	Midi gravity-flow columns	Maxi gravity-flow columns
Sample material	0.1 – 1 mL whole blood <50 µL buffy coat 5 x 10 ⁶ cells	2 – 5 mL whole blood <250 µL buffy coat 2 x 10 ⁷ cells	5 – 20 mL whole blood <1 mL buffy coat 10 ⁸ cells
Fragment size	500 bp – 300 kbp	500 bp – 300 kbp	500 bp – 300 kbp
Typical yield	20 µg	100 µg	500 µg
A ₂₆₀ /A ₂₈₀	1.80 – 1.95	1.80 – 1.95	1.80 – 1.95
Preparation time	4 – 5 h	4 – 5 h	4 – 5 h
Binding capacity	20 µg	100 µg	500 µg

Applications*

- Genomic DNA from whole blood, serum, plasma, cultured cells, buffy coat

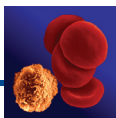
* Kits to be used for research purposes only (see page 160)

For detailed product information and application data see www.mn-net.com/DNAblood

Ordering information

Product	Preps	Specification	REF
NucleoBond® CB kits			
NucleoBond® CB 20	20	NucleoBond® AXG 20 Columns, buffers, Proteinase K	740507
NucleoBond® CB 100	20	NucleoBond® AXG 100 Columns, buffers, Proteinase K	740508
NucleoBond® CB 500	10	NucleoBond® AXG 500 Columns, buffers, Proteinase K	740509
NucleoBond® AXG columns without buffers			
NucleoBond® AXG 20	20	NucleoBond® AXG 20 Columns	740544
NucleoBond® AXG 100	20	NucleoBond® AXG 100 Columns	740545
NucleoBond® AXG 500	10	NucleoBond® AXG 500 Columns	740546
Product accessories			
	Pack of	Specification	REF
NucleoBond® Small Rack	1	for use with NucleoBond® AXG 20 Columns	740562
NucleoBond® Large Rack	1	for use with NucleoBond® AXG 100 and 500 Columns	740563

For separate kit components see “Accessories” page 137



single prep	
manual HTP	
automated HTP	8-well strips
	96-well plates
	96-well systems

NucleoSpin® 8/96 Blood · NucleoSpin® 8/96 Blood Core Kit

Features

Isolation of genomic DNA from whole blood in flexible 8-well strip format and for high throughput in convenient 96-well format

- Time-saving parallel isolation of genomic DNA from whole blood
- Optimized for manual or automated use under vacuum
- Improved flow-rate reduces risk of clogging
→ no cross-contamination, reliable results
- Innovative MN Wash Plate minimizes risk of cross-contamination
- Complete processing possible at room temperature
- Consistently high yields
- NucleoSpin® 8/96 Blood Core Kit:
Kits with basic content focussed on automation platforms.
Additional accessories can be combined as needed.



Product at a glance

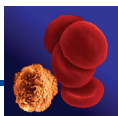
	NucleoSpin® 8 Blood NucleoSpin® 8 Blood Core Kit	NucleoSpin® 96 Blood NucleoSpin® 96 Blood Core Kit
Technology	Silica-membrane technology	
Format	8-well strips	96-well plates
Processing	Manual or automated, optimized for vacuum processing	
Sample material	Whole blood treated with EDTA, citrate, heparin, CPDA, human or animal blood 200 µL whole blood, 2 x 10 ⁶ cultured cells	
Fragment size	300 bp – approx. 50 kbp	300 bp – approx. 50 kbp
Typical yield	4 – 6 µg	4 – 6 µg
A ₂₆₀ /A ₂₈₀	1.8 – 1.9	1.8 – 1.9
Elution volume	100 µL	100 µL
Preparation time	35 min / 6 strips	70 min / plate
Binding capacity	20 µg	20 µg
Procedure chart see page 81		

Applications*

- Manual or automated isolation of genomic DNA from whole blood or cultured cells
- Typical downstream applications: PCR, Southern blotting, any kind of enzymatic reaction

* Kits to be used for research purposes only (see page 160)

① For detailed product information and application data see www.mn-net.com/DNAblood



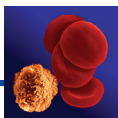
single prep				
manual HTP				
automated HTP	<table border="1"> <tr> <td>8-well strips</td> </tr> <tr> <td>96-well plates</td> </tr> <tr> <td>96-well systems</td> </tr> </table>	8-well strips	96-well plates	96-well systems
8-well strips				
96-well plates				
96-well systems				

Ordering information

Product	Preps	Specification	REF
NucleoSpin® 8 Blood	12 x 8	NucleoSpin® Blood Binding Strips, MN Wash Plate, Rack of Tube Strips, buffers, Proteinase K	740664
	60 x 8	as above	740664.5
NucleoSpin® 8 Blood Core Kit	48 x 8	NucleoSpin® Blood Binding Strips, buffers, Proteinase K	740455.4
NucleoSpin® 96 Blood	1 x 96	NucleoSpin® Blood Binding Plate, MN Wash Plate, Lysis Block, Rack of Tube Strips, Tubes (15 mL), buffers, Proteinase K	740665.1
	4 x 96	as above	740665.4
	24 x 96	as above	740665.24
NucleoSpin® 96 Blood Core Kit	4 x 96	NucleoSpin® Blood Binding Plates, buffers, Proteinase K	740456.4

Product accessories	Pack of	Specification	REF
NucleoVac 96 Vacuum Manifold	1		740681
NucleoVac Vacuum Regulator	1	for controlling of vacuum	740641
Starter Set A	1	for use of NucleoSpin® 8-well strips on the NucleoVac 96 Vacuum Manifold	740682
Starter Set C	1	for use of NucleoSpin® 8-well strips under centrifugation	740684

For separate kit components see "Accessories" page 137



single prep	
manual HTP	8-well strips
automated HTP	96-well plates



NucleoSpin® 8/96 Blood QuickPure

Features

Isolation of genomic DNA from whole blood in flexible 8-well strip format and for high throughput in convenient 96-well format

- Time-saving parallel isolation of genomic DNA from whole blood
- Optimized for manual use in a centrifuge
- Reduced number of washing and drying steps minimizes hands-on-time
- Consistently high DNA yields



Product at a glance

	NucleoSpin® 8 Blood QuickPure	NucleoSpin® 96 Blood QuickPure
Technology	Silica-membrane technology	
Format	8-well strips	96-well plates
Processing	Manual, centrifugation	Manual, centrifugation
Sample material	Human or animal whole blood, treated with EDTA, citrate, heparin, CPDA 200 µL whole blood, 300 µL whole blood* 200 µL serum, plasma, buffy coats, body fluids, 10 ⁷ lymphocytes	
Fragment size	300 bp – approx. 50 kbp	300 bp – approx. 50 kbp
Typical yield	4 – 6 µg	4 – 6 µg
A ₂₆₀ /A ₂₈₀	1.6 – 1.9	1.6 – 1.9
Elution volume	75 – 100 µL	75 – 100 µL
Preparation time	60 min / 12 strips	60 min / 2 plates
Binding capacity	60 µg	60 µg
Procedure chart see page 81		

Applications**

- Manual isolation of genomic DNA from whole blood, serum, plasma, buffy coats, platelets, body fluids, or cultured cells under centrifugation
- Typical downstream applications: PCR, Southern blotting, any kind of enzymatic reaction

* For preparation of 300 µL samples increased volumes of Binding Buffer BQ1 are required, see page 143

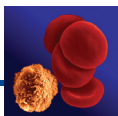
** Kits to be used for research purposes only (see page 160)

For detailed product information and application data see www.mn-net.com/DNAblood

Ordering information

Product	Preps	Specification	REF
NucleoSpin® 8 Blood QuickPure	12 x 8	NucleoSpin® Blood QuickPure Binding Strips, Racks of Tube Strips, Self-adhering Foil, buffers, Proteinase K	740666
	60 x 8	as above	740666.5
NucleoSpin® 96 Blood QuickPure	2 x 96	NucleoSpin® Blood QuickPure Binding Plates, MN Square-well Blocks, Round-well Blocks Low, Self-adhering Foil, buffers, Proteinase K	740667.2
	4 x 96	as above	740667.4
	24 x 96	as above	740667.24
Product accessories	Pack of	Specification	REF
Starter Set C	1 set	for use of NucleoSpin® 8-well strips under centrifugation	740684

For separate kit components see "Accessories" page 137



single prep				
manual HTP				
automated HTP	<table border="1"> <tr> <td>8-well strips</td> </tr> <tr> <td>96-well plates</td> </tr> <tr> <td>96-well systems</td> </tr> </table>	8-well strips	96-well plates	96-well systems
8-well strips				
96-well plates				
96-well systems				

NucleoMag® Blood 200 µL/3 mL

Features

Magnetic-bead based isolation of genomic DNA from whole blood

- One-tube procedure minimizes risk of cross-contamination
- Small elution volumes: ≥50 µL (NucleoMag® Blood 200 µL), ≥1 mL (NucleoMag® Blood 3 mL)
- Easily adapted to automated use
- Consistently high yields

Product at a glance

	NucleoMag® Blood 200 µL	NucleoMag® Blood 3 mL
Technology	Magnetic-bead technology	
Format	Highly reactive superparamagnetic beads	
Processing	Manual or automated	Automated*
Sample material	200 µL whole blood (fresh or frozen, EDTA, or citrate treated)	3 mL whole blood (fresh or frozen, EDTA, or citrate treated)
Fragment size	20 – approx. 50 kbp	20 – approx. 50 kbp
Typical yield	2 – 8 µg	100 – 130 µg
A ₂₆₀ /A ₂₈₀	1.6 – 1.9	1.6 – 1.9
Elution volume	≥50 µL	≥1 mL
Preparation time	45 min / 96 preps*	60 min / 24 preps*
Binding capacity	Approx. 0.4 µg / µL beads	Approx. 0.4 µg / µL beads
Procedure chart see page 81		

Applications**

- Manual or automated isolation of genomic DNA from whole blood
- Typical downstream applications: PCR, real-time PCR, Southern blotting, any kind of enzymatic reaction

* Established on KingFisher® Flex

** Kits to be used for research purposes only (see page 160)

i For detailed product information and application data see www.mn-net.com/DNAblood

Ordering information

Product	Preps	Specification	REF
NucleoMag® Blood 200 µL	1 x 96	NucleoMag® B-Beads, buffers, Proteinase K	744501.1
	4 x 96	as above	744501.4
NucleoMag® Blood 3 mL	1 x 96	NucleoMag® B-Beads, buffers, Proteinase K	744502.1
Material to be supplied by the user			
Separation plate, e.g., Square-well Block	4		740481
	24		740481.24
Elution plate, e.g., Elution Plate U-bottom	24		740486.24
For use of NucleoMag® Blood 200 µL only on KingFisher® 96 / Flex	1 set	Square-well Blocks, Deep-well Tip Combs and Elution Plates for 4 x 96 preparations	744951
KingFisher® 96 Accessory Kit B			
Product accessories			
Product accessories	Pack of	Specification	REF
NucleoMag® SEP	1	magnetic separator	744900

For separate kit components see “Accessories” page 137 or contact Technical Service



single prep	mini spin columns
manual HTP	mini spin columns – XS design
automated HTP	gravity flow columns



NucleoSpin® Tissue

Highest sensitivity and flexibility

Features

Allround kit with highest sensitivity for purification of total DNA from clinical or forensic samples, tissues, cells, yeast, bacteria, or viruses

- High DNA recovery and purity
- Reliable DNA purification for reproducible results
- Suitable for a huge variety of starting materials
 - more than 16 optimized support protocols available



Product at a glance

Technology	Silica-membrane technology
Format	Mini spin columns
Sample material	<25 mg tissue 10 ² – 10 ⁷ cultured cells
Fragment size	200 bp – approx. 50 kbp
Typical yield	20 – 35 µg
A ₂₆₀ /A ₂₈₀	1.7 – 1.9
Elution volume	60 – 100 µL
Preparation time	~20 min / prep (excl. lysis)
Binding capacity	60 µg

Procedure chart see page 80

Applications*

- DNA from tissue (e.g., mouse tails)
- DNA from cells (e.g., cultured human or animal cells, bacteria, yeast)
- DNA from clinical samples (e.g., stool, urine, biopsy samples)
- DNA from forensic samples (e.g., dried blood spots, hair, buccal swabs, cigarette stubs)
- DNA from FFPE tissue
- DNA from blood sample storage cards (e.g., NucleoCard®, page 145)
- Typical downstream applications: multiplex PCR, Southern blotting, enzymatic reactions

* Kits to be used for research purposes only (see page 160)

For detailed product information and application data see www.mn-net.com/DNA tissue

Ordering information

Product	Preps	Specification	REF
NucleoSpin® Tissue	10	NucleoSpin® Tissue Columns, Collection Tubes (2 mL), buffers, Proteinase K	740952.10
	50	as above	740952.50
	250	as above	740952.250

For separate kit components see “Accessories” page 137



single prep	mini spin columns
manual HTP	mini spin columns – XS design
automated HTP	gravity flow columns

NucleoSpin® Tissue XS

5 µL elution volume → highly concentrated DNA

Features

Purification of genomic, bacterial, and viral DNA from smallest samples

- High sensitivity for DNA isolation from small sample quantities, like biopsy materials, forensic samples, or FACS sorted cells
- Elution in as little as 5 µL resulting in concentrated DNA
- Excellent DNA recovery and purity for reliable results
- DNA ready to use for multiplex PCR and all common downstream applications



Product at a glance

Technology	Silica-membrane technology	
Format	Mini spin columns – XS design	
Sample material	Tissue samples:	0.025 – 10 mg
	Blood samples:	1 – 30 µL, fresh or frozen
	Cultured cells:	10 – 10 000
	Guthrie cards:	spots of 5 – 30 mm ²
Fragment size	200 bp – approx. 50 kbp	
Typical yield	100 HeLa cells:	0.1 – 0.5 ng
	1 000 HeLa cells:	1 – 5 ng
	10 000 HeLa cells:	10 – 50 ng
	0.025 mg mouse liver:	20 – 100 ng
	0.25 mg mouse liver:	200 – 1 000 ng
	2.5 mg mouse liver:	600 – 3 000 ng
A ₂₆₀ /A ₂₈₀	1.7 – 1.9	
Elution volume	5 – 30 µL	
Preparation time	~40 min / prep (excl. lysis)	
Binding capacity	110 µg	
Procedure chart see page 80		

Applications*

- DNA isolation from tissue (e.g., mouse kidney, laser micro-dissections)
- DNA isolation from cells (e.g., bacteria, yeast, cultured cells)
- DNA isolation from clinical samples (e.g., biopsy samples, fine needle aspirates)
- DNA isolation from forensic samples (e.g., dried blood spots, buccal swabs, finger prints)
- DNA suitable for sensitive applications (e.g., multiplex PCR, real-time PCR)

* Kits to be used for research purposes only (see page 160)

For detailed product information and application data see www.mn-net.com/DNA tissue

Ordering information

Product	Preps	Specification	REF
NucleoSpin® Tissue XS	10	NucleoSpin® Tissue XS Columns, Collection Tubes (2 mL), buffers, Proteinase K	740901.10
	50	as above	740901.50
	250	as above	740901.250

For separate kit components see “Accessories” page 137



single prep	mini spin columns
manual HTP	mini spin columns – XS design
automated HTP	gravity-flow columns



NucleoBond® AXG

Features

The anion-exchanger columns for purification of up to 500 µg genomic DNA

- Ultra-pure genomic DNA from tissue, bacteria, or yeast
- Combine NucleoBond® AXG columns and the corresponding buffer set for highest flexibility:
 NucleoBond® AXG columns + NucleoBond® Buffer Set III → genomic DNA from bacteria and yeast*
 NucleoBond® AXG columns + NucleoBond® Buffer Set IV → genomic DNA from tissue

Product at a glance

	NucleoBond® AXG 20	NucleoBond® AXG 100	NucleoBond® AXG 500
Technology	Anion-exchange chromatography		
Format	Mini gravity-flow columns	Midi gravity-flow columns	Maxi gravity-flow columns
Sample material	2 – 5 mL bacterial culture 3 – 5 mL yeast culture* <20 mg tissue	15 – 20 mL bacterial culture 10 – 20 mL yeast culture* <100 mg tissue	60 – 80 mL bacterial culture 100 – 500 mL yeast culture* <400 mg tissue
Fragment size	500 bp – 300 kbp	500 bp – 300 kbp	500 bp – 300 kbp
Typical yield	20 µg	100 µg	500 µg
A ₂₆₀ /A ₂₈₀	1.80 – 1.95	1.80 – 1.95	1.80 – 1.95
Preparation time	4 – 5 h	4 – 5 h	4 – 5 h
Binding capacity	20 µg	100 µg	500 µg

Applications**

- Genomic DNA from bacteria, yeast*, tissue

* For isolation of genomic DNA from yeast additional buffers are required, see user manual

** Kits to be used for research purposes only (see page 160)

For detailed product information and application data see www.mn-net.com/DNAissue

Ordering information

Product	Preps	Specification	REF
NucleoBond® AXG columns without buffers			
NucleoBond® AXG 20	20	NucleoBond® AXG 20 Columns	740544
NucleoBond® AXG 100	20	NucleoBond® AXG 100 Columns	740545
NucleoBond® AXG 500	10	NucleoBond® AXG 500 Columns	740546
NucleoBond® buffer sets			
NucleoBond® Buffer Set III for isolation of genomic DNA from bacteria and yeast*	1 set	for 10 NucleoBond® AXG 500 Columns, 20 NucleoBond® AXG 100 Columns or 100 NucleoBond® AXG 20 Columns	740603
NucleoBond® Buffer Set IV for isolation of genomic DNA from tissue	1 set	for 10 NucleoBond® AXG 500 Columns, 20 NucleoBond® AXG 100 Columns or 100 NucleoBond® AXG 20 Columns	740604
Product accessories			
	Pack of	Specification	REF
NucleoBond® Rack Small	1	for use with NucleoBond® AXG 20 Columns	740562
NucleoBond® Rack Large	1	for use with NucleoBond® AXG 100 and 500 Columns	740563

For separate kit components see "Accessories" page 137



NucleoSpin® 8/96 Tissue · NucleoSpin® 96 Tissue Core Kit

Features

Isolation of genomic DNA from human or animal tissue, cultured cells, or bacteria in flexible 8-well strip format and for high throughput in convenient 96-well plate format

- Processing possible under vacuum or by centrifugation
- Suitable for manual and automated processing
- Innovative MN Wash Plate minimizes risk of cross-contamination
- NucleoSpin® 96 Tissue Core Kit:
Kits with basic content focussed on automation platforms.
Additional accessories can be combined as needed.



Product at a glance

	NucleoSpin® 8 Tissue	NucleoSpin® 96 Tissue NucleoSpin® 96 Tissue Core Kit
Technology	Silica-membrane technology	
Format	8-well strips	96-well plates
Processing	Manual or automated, vacuum or centrifugation	
Sample material	<20 mg tissue, <10 ⁶ cultured cells, bacteria	
Fragment size	300 bp – approx. 50 kbp	300 bp – approx. 50 kbp
Typical yield	15 – 25 µg	15 – 25 µg
A ₂₆₀ /A ₂₈₀	1.8 – 1.9	1.8 – 1.9
Elution volume	100 – 200 µL	100 – 200 µL
Preparation time	20 min / 6 strips (excl. lysis)	60 min / plate (excl. lysis)
Binding capacity	40 µg	40 µg
Procedure chart	see page 81	

Applications*

- Manual or automated isolation of DNA from human and animal tissue, cultured cells, or bacteria
- Typical downstream applications: PCR, Southern blotting, any kind of enzymatic reaction

* Kits to be used for research purposes only (see page 160)

① For detailed product information and application data see www.mn-net.com/DNA tissue

Ordering information see next page



Genomic DNA from Tissue and Cells

single prep				
manual HTP				
automated HTP	<table border="1"> <tr> <td>8-well strips</td> </tr> <tr> <td>96-well plates</td> </tr> <tr> <td>96-well systems</td> </tr> </table>	8-well strips	96-well plates	96-well systems
8-well strips				
96-well plates				
96-well systems				

Ordering information

Product	Preps	Specification	REF
NucleoSpin® 8 Tissue	12 x 8	NucleoSpin® Tissue Binding Strips, MN Wash Plate, MN Square-well Blocks, Rack of Tube Strips, Self-adhering Foil, buffers, Proteinase K	740740
	60 x 8	as above	740740.5
NucleoSpin® 96 Tissue	2 x 96	NucleoSpin® Tissue Binding Plates, MN Wash Plates, MN Square-well Blocks, Round-well Blocks, Racks of Tube Strips, Self-adhering Foil, buffers, Proteinase K	740741.2
	4 x 96	as above	740741.4
	24 x 96	as above	740741.24
NucleoSpin® 96 Tissue Core Kit	4 x 96	NucleoSpin® Tissue Binding Plates, buffers, Proteinase K	740454.4
Product accessories	Pack of	Specification	REF
NucleoVac 96 Vacuum Manifold	1		740681
NucleoVac Vacuum Regulator	1	for controlling of vacuum	740641
Starter Set A	1	for use of NucleoSpin® 8-well strips on the NucleoVac 96 Vacuum Manifold	740682
Starter Set C	1	for use of NucleoSpin® 8-well strips under centrifugation	740684

For separate kit components see "Accessories" page 137



single prep				
manual HTP				
automated HTP	<table border="1"> <tr> <td>8-well strips</td> </tr> <tr> <td>96-well plates</td> </tr> <tr> <td>96-well systems</td> </tr> </table>	8-well strips	96-well plates	96-well systems
8-well strips				
96-well plates				
96-well systems				



NucleoMag® 96 Tissue

Features

Magnetic-bead based isolation of genomic DNA from human or animal tissue, cultured cells, or bacteria

- One-tube procedure minimizes risk of cross-contamination
- Small elution volumes $\geq 50 \mu\text{L}$ possible
- Yield does not depend on elution volume
- Easily adapted to automated use
- Processing at room temperature (excluding lysis step)

Product at a glance

Technology	Magnetic-bead technology
Format	Highly reactive superparamagnetic beads
Processing	Manual or automated
Sample material	<20 mg tissue, <10 ⁷ cells or bacteria
Fragment size	300 bp – approx. 50 kbp
Typical yield	10 – 20 μg
A ₂₆₀ /A ₂₈₀	1.6 – 1.9
Elution volume	$\geq 50 \mu\text{L}$
Preparation time	120 min / 96 preps
Binding capacity	Approx. 0.4 $\mu\text{g} / \mu\text{L}$ beads
Procedure chart	see page 81

Applications*

- Manual or automated isolation of DNA from human and animal tissue, cultured cells, or bacteria
- Typical downstream applications: PCR, Southern blotting, any kind of enzymatic reaction

* Kits to be used for research purposes only (see page 160)

For detailed product information and application data see www.mn-net.com/DNA tissue

Ordering information

Product	Preps	Specification	REF
NucleoMag® 96 Tissue	1 x 96	NucleoMag® B-Beads, buffers, Proteinase K	744300.1
	4 x 96	as above	744300.4
	24 x 96	as above	744300.24
Material to be supplied by the user			
Lysis tubes, e.g., Rack of Tube Strips	4 sets	incl. Cap Strips	740477
Separation plate, e.g., Square-well Block	4		740481
	24		740481.24
Elution plate, e.g., Elution Plate U-bottom	24		740486.24
For use with KingFisher® 96 platform	1 set	Square-well Blocks, Deep-well Tip Combs	744950
KingFisher® 96 Accessory Kit A		and Elution Plates for 4 x 96 preparations	
Product accessories			
Product accessories	Pack of	Specification	REF
NucleoMag® SEP	1	magnetic separator	744900

For separate kit components see “Accessories” page 137



NucleoSpin® FFPE DNA

Features

Improved DNA quality from formalin-fixed, paraffin-embedded samples – no xylene needed

- Very easy paraffin removal – Paraffin Dissolver (patent pending) included
- Concentrated DNA by elution in small volume
- Overcoming formalin crosslinking of DNA by incubation in decrosslinking buffer
- High quality DNA for improved performance in PCR



Product at a glance

Technology	Silica-membrane technology
Format	Mini spin columns – XS design
Sample material	≤7 sections (10 µm) of 250 mm ² total area (<15 mg paraffin*)
Typical yield	Depending on amount and quality of the sample
DNA quality	Strongly depending on sample quality
Elution volume	5 – 30 µL
Preparation time	70 min / 6 preps (excl. lysis)
Binding capacity	110 µg
Procedure chart	see page 80

Applications**

- Rapid isolation of DNA from formalin-fixed, paraffin-embedded samples
- Isolation of DNA from fresh and archive FFPE samples
- Isolation of DNA from specimen of object slides
- Typical downstream application: PCR

* When using the standard protocol with Paraffin Dissolver. Larger quantities of paraffin can be processed when using additional Paraffin Dissolver or the standard protocol with xylene for deparaffinization.

** Kits to be used for research purposes only (see page 160)

For detailed product information and application data see www.mn-net.com/DNAFFPE

Ordering information

Product	Preps	Specification	REF
NucleoSpin® FFPE DNA	10	NucleoSpin® FFPE DNA Columns, Collection Tubes (2 mL), Paraffin Dissolver, buffers, Proteinase K	740980.10
	50	as above	740980.50
	250	as above	740980.250

For separate kit components see “Accessories” page 137



single prep

manual HTP

automated HTP

funnel columns



NucleoSpin® DNA Trace

Patented technology for highest sensitivity

Features

Isolation of DNA from forensic samples, suitable for trace amounts of DNA

- Perfect for the recovery of DNA traces in a large volume of starting material
- Concentrated DNA by elution in 100 µL
- Closed system, no cross-contamination → highest safety
- Support protocol for isolation of genomic DNA from human bones*



Product at a glance

Technology	Silica-membrane technology
Format	Funnel columns
Sample material	Forensic samples, buccal swabs, blood spots
Typical yield	> 10 ng
Typical recovery	> 70%
A ₂₆₀ /A ₂₈₀	1.7 – 1.9
Elution volume	100 µL
Preparation time	60 min / prep
Binding capacity	20 µg
Procedure chart see page 81	

Applications**

- DNA isolation from forensic samples, e.g., blood spots, swabs
- For trace analysis and forensic investigations
- Genomic DNA from human bones*
- Typical downstream applications: PCR, real-time PCR, enzymatic reactions

* Additional NucleoSpin® DNA Trace Bone Buffer Set required (see ordering information)

** Kits to be used for research purposes only (see page 160)

For detailed product information and application data see www.mn-net.com/DNAforensic

Ordering information

Product	Preps	Specification	REF
NucleoSpin® DNA Trace	4	NucleoSpin® Funnel Columns with Collection Tubes, Collection Tubes (50 mL), Collection Tubes (0.5 mL), buffers, Proteinase K	740942.4
	25	as above	740942.25
Product accessories	Pack of	Specification	REF
NucleoSpin® DNA Trace Bone Buffer Set	1	for completion of the NucleoSpin® DNA Trace kit, sufficient for 25 preparations of genomic DNA from human bones, only to be used in combination with the NucleoSpin® DNA Trace kit for 25 preparations	740943.25

For separate kit components see "Accessories" page 137



single prep	
manual HTP	
automated HTP	8-well strips
	96-well plates
	96-well systems

NucleoSpin® 8/96 Trace

Features

Isolation of genomic DNA from forensic samples in flexible 8-well strip format and for high throughput in approved 96-well format

- Time-saving parallel isolation of genomic DNA from forensic samples (e.g., buccal swabs, dried blood spots, cigarette filters)
- Processing possible under vacuum or by centrifugation
- Suitable for manual and automated processing
- Innovative MN Wash Plate minimizes risk of cross-contamination
- DNA ready to use for any kind of enzymatic reaction, e.g., STR analysis



Product at a glance

	NucleoSpin® 8 Trace	NucleoSpin® 96 Trace
Technology	Silica-membrane technology	
Format	8-well strips	96-well strips
Processing	Manual or automated, vacuum or centrifugation	
Sample material	Forensic samples, buccal swabs, blood spots, cigarette filters	
Typical yield	1 – 2 µg	1 – 2 µg
A ₂₆₀ /A ₂₈₀	1.8 – 1.9	1.8 – 1.9
Elution volume	50 – 100 µL	50 – 100 µL
Preparation time	30 min / 6 strips	70 min / plate
Binding capacity	20 µg	20 µg

Procedure chart see page 81

Applications*

- Manual or automated isolation of genomic DNA from forensic samples

* Kits to be used for research purposes only (see page 160)

For detailed product information and application data see www.mn-net.com/DNAforensic



Genomic DNA from Forensic Samples

single prep				
manual HTP				
automated HTP	<table border="1"> <tr><td>8-well strips</td></tr> <tr><td>96-well plates</td></tr> <tr><td>96-well systems</td></tr> </table>	8-well strips	96-well plates	96-well systems
8-well strips				
96-well plates				
96-well systems				

Ordering information

Product	Preps	Specification	REF
NucleoSpin® 8 Trace	12 x 8	NucleoSpin® Trace Binding Strips, MN Wash Plate, MN Square-well Blocks, Rack of Tube Strips, Self-adhering Foil, buffers, Proteinase K	740722.1
	60 x 8	as above	740722.5
NucleoSpin® 96 Trace	2 x 96	NucleoSpin® Trace Binding Plates, MN Wash Plates, MN Square-well Blocks, Racks of Tube Strips, buffers, Proteinase K	740726.2
	4 x 96	as above	740726.4
Product accessories	Pack of	Specification	REF
NucleoVac 96 Vacuum Manifold	1		740681
NucleoVac Vacuum Regulator	1	for controlling of vacuum	740641
Starter Set A	1	for use of NucleoSpin® 8-well strips on the NucleoVac 96 Vacuum Manifold	740682
Starter Set C	1	for use of NucleoSpin® 8-well strips under centrifugation	740684
NucleoSpin® Trace Filter Plate	20		740677

For separate kit components see "Accessories" page 137



single prep	
manual HTP	
automated HTP	8-well strips
	96-well plates
	96-well systems



NucleoMag® 96 Trace

Features

Magnetic-bead based isolation of genomic DNA from forensic samples (e.g., buccal swabs, dried blood spots, cigarette filters)

- One-tube procedure minimizes risk of cross-contamination
- Small elution volumes ≥ 50 µL possible
- Easily adapted to automated use

Product at a glance

Technology	Magnetic-bead technology
Format	Highly reactive superparamagnetic beads
Processing	Manual or automated
Sample material	Buccal swabs, dried blood spots, cigarette filters
Typical yield	1 – 3 µg
Typical concentration	10 – 30 ng/µL
A ₂₆₀ /A ₂₈₀	1.6 – 1.9
Elution volume	≥ 50 µL
Preparation time	120 min / 96 preps
Binding capacity	Approx. 0.4 µg / µL beads
Procedure chart see page 81	

Applications*

- Manual or automated isolation of DNA from buccal swabs, dried blood spots, cigarette filters
- Typical downstream applications: PCR, STR analysis, any kind of enzymatic reaction

* Kits to be used for research purposes only (see page 160)

For detailed product information and application data see www.mn-net.com/DNAforensic

Ordering information

Product	Preps	Specification	REF
NucleoMag® 96 Trace	1 x 96	NucleoMag® B-Beads, buffers, Proteinase K	744600.1
	4 x 96	as above	744600.4
	24 x 96	as above	744600.24

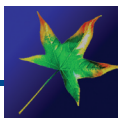
Material to be supplied by the user

Lysis tubes, e.g., Rack of Tube Strips	4 sets	incl. Cap Strips	740477
Separation plate, e.g., Square-well Block	4		740481
	24		740481.24
Elution plate, e.g., Elution Plate U-bottom	24		740486.24

For use with KingFisher® 96 platform	1 set	Square-well Blocks, Deep-well Tip Combs and Elution Plates for 4 x 96 preparations	744950
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Product accessories	Pack of	Specification	REF
NucleoMag® SEP	1	magnetic separator	744900

For separate kit components see "Accessories" page 137



single prep	mini spin columns
manual HTP	midi spin columns
automated HTP	maxi spin columns

NucleoSpin® Plant II

Select the most efficient lysis buffer

Features

The second generation for rapid isolation of genomic DNA from plant samples with higher yield and quality

- Two alternative lysis buffers included for optimal processing of various samples and highest flexibility:
Lysis Buffer PL1, based on CTAB lysis method
Lysis Buffer PL2, based on SDS lysis method
- NucleoSpin® Filters included for clarification of lysate
- Improved buffer compositions → higher yield and purity
- Optimized silica membrane → improved DNA binding
- RNase A included



Product at a glance

Technology	Silica-membrane technology
Format	Mini spin columns
Sample material	<100 mg plant tissue (wet weight), <20 mg plant tissue (dry weight)
Lysate clarification	NucleoSpin® Filters
Fragment size	50 bp – approx. 50 kbp
Typical yield	1 – 30 µg
A ₂₆₀ /A ₂₈₀	1.6 – 1.9
Elution volume	2 x 50 µL
Preparation time	30 min / prep
Binding capacity	50 µg
Procedure chart	see page 80

Applications

- DNA from plant cells and tissue
- DNA from fungi
- Typical downstream applications: PCR, Southern blotting, enzymatic reactions

For detailed product information and application data see www.mn-net.com/DNAplant

Ordering information

Product	Preps	Specification	REF
NucleoSpin® Plant II	10	NucleoSpin® Plant II Columns, NucleoSpin® Filters, Collection Tubes (2 mL), buffers, RNase A	740770.10
	50	as above	740770.50
	250	as above	740770.250

For separate kit components see “Accessories” page 137



single prep	mini spin columns
manual HTP	midi spin columns
automated HTP	maxi spin columns



NucleoSpin® Plant II Midi / Maxi

Features

For rapid medium and large scale preparation of genomic DNA from plant cells and tissue

- Two alternative lysis buffers included for optimal processing of various samples and highest flexibility:
Lysis Buffer PL1, based on CTAB lysis method
Lysis Buffer PL2, based on SDS lysis method
- NucleoSpin® Filters L/XL included for clarification of lysate
- Improved buffer compositions → higher yield and purity
- RNase A included



Product at a glance

	NucleoSpin® Plant II Midi	NucleoSpin® Plant II Maxi
Technology	Silica-membrane technology	
Format	Midi spin columns	Maxi spin columns
Sample material	<400 mg plant tissue (wet weight) <80 mg plant tissue (dry weight)	<1 500 mg plant tissue (wet weight) <300 mg plant tissue (dry weight)
Lysate clarification	NucleoSpin® Filters L	NucleoSpin® Filters XL
Fragment size	50 bp – approx. 50 kbp	50 bp – approx. 50 kbp
Typical yield	10 – 100 µg	50 – 300 µg
A ₂₆₀ /A ₂₈₀	1.8 – 1.9	1.8 – 1.9
Elution volume	200 – 400 µL	1 000 – 3 000 µL
Preparation time	90 min / prep	90 min / prep
Binding capacity	200 µg	500 µg
Procedure chart see page 80		

Applications

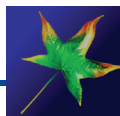
- DNA from plant cells and tissue
- DNA from fungi
- Typical downstream applications: PCR, Southern blotting, enzymatic reactions

For detailed product information and application data see www.mn-net.com/DNAplant

Ordering information

Product	Preps	Specification	REF
NucleoSpin® Plant II Midi	20	NucleoSpin® Plant II Midi Columns with Collection Tubes, NucleoSpin® Filters L, Collection Tubes (15 mL), buffers, RNase A	740771.20
NucleoSpin® Plant II Maxi	10	NucleoSpin® Plant II Maxi Columns with Collection Tubes, NucleoSpin® Filters XL, Collection Tubes (50 mL), buffers, RNase A	740772.10

For separate kit components see "Accessories" page 137



NucleoSpin® 8/96 Plant II · NucleoSpin® 8/96 Plant II Core Kit

Features

Isolation of genomic DNA from plant cells and tissue in flexible 8-well strip format and for high throughput in approved 96-well format

- Time-saving parallel isolation of genomic DNA from plant cells and tissue
- Processing possible under vacuum* or by centrifugation
- Suitable for manual and automated processing
- Innovative MN Wash Plate minimizes risk of cross-contamination
- DNA ready to use for any kind of enzymatic reaction
- NucleoSpin® 8 / 96 Plant II Core Kit:
Kits with basic content focussed on automation platforms.
Additional accessories can be combined as needed.



Product at a glance

	NucleoSpin® 8 Plant II NucleoSpin® 8 Plant II Core Kit	NucleoSpin® 96 Plant II NucleoSpin® 96 Plant II Core Kit
Technology	Silica-membrane technology	
Format	8-well strips	96-well strips
Processing	Manual or automated, vacuum* or centrifugation	
Sample material	20 – 100 mg plant tissue, plant cells	
Fragment size	50 bp – approx. 50 kbp	50 bp – approx. 50 kbp
Typical yield	5 – 30 µg	5 – 30 µg
A ₂₆₀ /A ₂₈₀	1.8 – 1.9	1.8 – 1.9
Elution volume	100 – 200 µL	100 – 200 µL
Preparation time	120 min / 12 strips	120 min / plate
Binding capacity	30 µg	30 µg
Procedure chart see page 81		

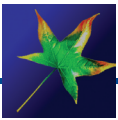
Applications

- Manual or automated isolation of genomic DNA from plant cells and tissue

* A centrifuge is required for clearing the lysate

For detailed product information and application data see www.mn-net.com/DNAplant

Ordering information see next page

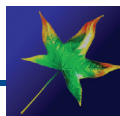


single prep				
manual HTP				
automated HTP	<table border="1"> <tr> <td>8-well strips</td> </tr> <tr> <td>96-well plates</td> </tr> <tr> <td>96-well systems</td> </tr> </table>	8-well strips	96-well plates	96-well systems
8-well strips				
96-well plates				
96-well systems				

Ordering information

Product	Preps	Specification	REF
NucleoSpin® 8 Plant II	12 x 8	NucleoSpin® Plant II Binding Strips, MN Wash Plates, MN Square-well Block, Rack of Tube Strips, Gas-permeable Foil, Self-adhering Foil, buffers, RNase A	740669
	60 x 8	as above	740669.5
NucleoSpin® 8 Plant II Core Kit	48 x 8	NucleoSpin® Plant II Binding Strips, buffers, RNase A	740467.4
NucleoSpin® 96 Plant II	2 x 96	NucleoSpin® Plant II Binding Plates, MN Wash Plates, MN Square-well Blocks, Racks of Tube Strips, Gas-permeable Foil, buffers, RNase A	740663.2
	4 x 96	as above	740663.4
	24 x 96	as above	740663.24
NucleoSpin® 96 Plant II Core Kit	4 x 96	NucleoSpin® Plant II Binding Plates, buffers, RNase A	740468.4
Product accessories	Pack of	Specification	REF
NucleoVac 96 Vacuum Manifold	1		740681
NucleoVac Vacuum Regulator	1	for controlling of vacuum	740641
Starter Set A	1	for use of NucleoSpin® 8-well strips on the NucleoVac 96 Vacuum Manifold	740682
Starter Set C	1	for use of NucleoSpin® 8-well strips under centrifugation	740684

For separate kit components see "Accessories" page 137



single prep				
manual HTP				
automated HTP	<table border="1"> <tr> <td>8-well strips</td> </tr> <tr> <td>96-well plates</td> </tr> <tr> <td>96-well systems</td> </tr> </table>	8-well strips	96-well plates	96-well systems
8-well strips				
96-well plates				
96-well systems				

NucleoMag® 96 Plant

Features

Magnetic-bead based isolation of genomic DNA from plant tissue

- One-tube procedure minimizes risk of cross-contamination
- Small elution volumes $\geq 50 \mu\text{L}$ possible
- Yield does not depend on elution volume
- Easily adapted to automated use

Product at a glance

Technology	Magnetic-bead technology
Format	Highly reactive superparamagnetic beads
Processing	Manual or automated
Sample material	20 – 50 mg plant tissue
Fragment size	300 bp – approx. 50 kbp
Typical yield	10 – 20 μg
A_{260}/A_{280}	1.6 – 1.9
Elution volume	$\geq 50 \mu\text{L}$
Preparation time	120 min / 96 preps
Binding capacity	Approx. 0.4 $\mu\text{g} / \mu\text{L}$ beads
Procedure chart	see page 81

Applications

- Manual or automated isolation of DNA from plant tissue
- Typical downstream applications: PCR, Southern blotting, any kind of enzymatic reaction

For detailed product information and application data see www.mn-net.com/DNAplant

Ordering information

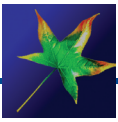
Product	Preps	Specification	REF
NucleoMag® 96 Plant	1 x 96	NucleoMag® C-Beads, Elution Plate U-bottom, buffers, RNase A	744400.1
	4 x 96	as above	744400.4
	24 x 96	as above	744400.24

Material to be supplied by the user

Homogenization tubes, e.g., Rack of Tube Strips	4 sets	incl. Cap Strips	740477
Separation plate, e.g., Square-well Block	4		740481
	24		740481.24
For use with KingFisher® 96 platform KingFisher® 96 Accessory Kit B	1 set	Square-well Blocks, Deep-well Tip Combs and Elution Plates for 4 x 96 preparations	744951

Product accessories	Pack of	Specification	REF
NucleoMag® SEP	1	magnetic separator	744900

For separate kit components see “Accessories” page 137



NucleoSpin® Soil

High yield and purity from diverse samples

Features

Isolation of total DNA from diverse soil types

- Two alternative lysis buffers and a special additive (Enhancer SX) for optimal processing of various soil samples → high yield and high purity
- NucleoSpin® Bead Tubes with ceramic beads for most efficient cell disruption of Gram-positive bacteria, archaea, yeast, fungi, and algae in soil, sludge or sediment
- NucleoSpin® Inhibitor Removal Column to eliminate all PCR inhibitors, such as humic substances – DNA is ready-to-use for PCR without dilution



Product at a glance

Technology	Silica-membrane technology
Format	Mini spin columns
Sample material	<500 mg soil, sludge, or sediment
Typical yield	2 – 10 µg
Elution volume	30 – 100 µL
Preparation time	90 min / 10 preps
Binding capacity	50 µg
Procedure chart see page 80	

Applications

- Total DNA from microorganisms in soil and sediment
- Quantify and detect microorganisms from environmental samples
- Typical downstream applications: PCR, real-time PCR, Southern blotting, microarray technology

For detailed product information and application data see www.mn-net.com/DNAsoil

Ordering information

Product	Preps	Specification	REF
NucleoSpin® Soil	10	NucleoSpin® Soil Columns, NucleoSpin® Bead Tubes, NucleoSpin® Inhibitor Removal Columns, Collection Tubes (2 mL), Collection Tubes (2 mL, lid), buffers	740780.10
	50	as above	740780.50
	250	as above	740780.250

For separate kit components see “Accessories” page 137



single prep

manual HTP

automated HTP

mini spin columns



NucleoSpin® Food

Features

For rapid small-scale isolation of genomic DNA from food and feed

- Complete removal of PCR inhibitors → get high quality DNA
- Even low amounts of partially degraded DNA can be purified from complex matrices
- Fast and easy procedure
- DNA from various sample materials → highest flexibility



Product at a glance

Technology	Silica-membrane technology
Format	Mini spin columns
Sample material	5 – 200 mg
Fragment size	300 bp – approx. 50 kbp
Typical yield	0.1 – 10 µg
A ₂₆₀ /A ₂₈₀	1.6 – 1.9
Elution volume	100 µL
Preparation time	30 min / 6 preps
Binding capacity	30 µg
Procedure chart see page 80	

Applications

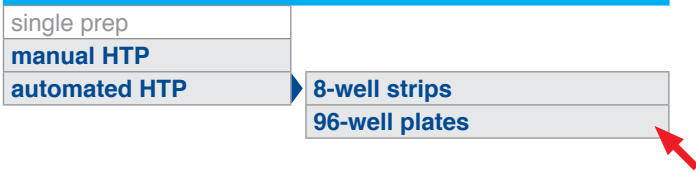
- DNA from complex matrices, e.g., processed food, soy (milk and flour), chocolate, cereals, meat, animal feed
- Typical downstream applications: real-time PCR, Southern blotting, enzymatic reactions

For detailed product information and application data see www.mn-net.com/DNAfood

Ordering information

Product	Preps	Specification	REF
NucleoSpin® Food	10	NucleoSpin® Food Columns, Collection Tubes (2 mL), buffers, Proteinase K	740945.10
	50	as above	740945.50
	250	as above	740945.250

For separate kit components see “Accessories” page 137



NucleoSpin® 8/96 Food

Features

Isolation of genomic DNA from food and feed in flexible 8-well strip format and for high throughput in approved 96-well format

- Complete removal of PCR inhibitors
- Processing possible under vacuum or by centrifugation
- Suitable for manual and automated processing



Product at a glance

	NucleoSpin® 8 Food	NucleoSpin® 96 Food
Technology	Silica-membrane technology	
Format	8-well strips	96-well strips
Processing	Manual or automated, vacuum or centrifugation	
Sample material	<200 mg food or feed	
Fragment size	300 bp – approx. 50 kbp	300 bp – approx. 50 kbp
Typical yield	0.1 – 10 µg	0.1 – 10 µg
A ₂₆₀ /A ₂₈₀	1.8 – 1.9	1.8 – 1.9
Elution volume	100 – 200 µL	100 – 200 µL
Preparation time	<60 min / 6 strips (excl. lysis)	<120 min / plate (excl. lysis)
Binding capacity	30 µg	30 µg
Procedure chart see page 81		

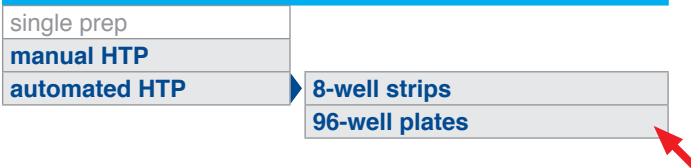
Applications

- Manual or automated isolation of DNA from food and feed
- Identification of GMO-DNA or animal components
- Typical downstream application: real-time PCR

For detailed product information and application data see www.mn-net.com/DNAfood



Genomic DNA from Food and Feed



Ordering information

Product	Preps	Specification	REF
NucleoSpin® 8 Food	12 x 8	NucleoSpin® Food Binding Strips, MN Wash Plates, Round-well Block, Rack of Tube Strips, Gas-permeable Foil, buffers, Proteinase K	740975
	60 x 8	as above	740975.5
NucleoSpin® 96 Food	2 x 96	NucleoSpin® Food Binding Plates, MN Wash Plates, MN Square-well Blocks, Round-well Blocks, Racks of Tube Strips, Gas-permeable Foil, buffers, Proteinase K	740976.2
	4 x 96	as above	740976.4
	24 x 96	as above	740976.24
Product accessories	Pack of	Specification	REF
NucleoVac 96 Vacuum Manifold	1		740681
NucleoVac Vacuum Regulator	1	for controlling of vacuum	740641
Starter Set A	1	for use of NucleoSpin® 8-well strips on the NucleoVac 96 Vacuum Manifold	740682
Starter Set C	1	for use of NucleoSpin® 8-well strips under centrifugation	740684

For separate kit components see “Accessories” page 137