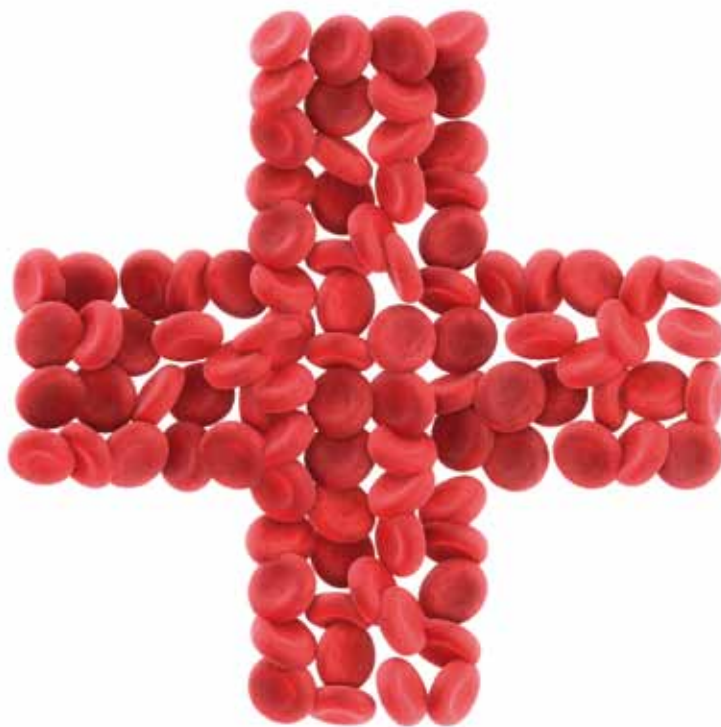


Genomic DNA purification products from MACHEREY-NAGEL

Genomic DNA Mini spin kit for in-vitro diagnostics
CE-marked for gDNA isolation from whole blood
NucleoSpin[®] Dx Blood



CE-marked in accordance with EU Directive 98/79/EC
For EDTA, citrate, and heparin blood samples
Very convenient handling
Highly reproducible gDNA isolation from whole blood...
... for most reliable results in PCR!

NucleoSpin® Dx Blood

gDNA from whole blood – for *in-vitro* diagnostic purposes

- ▶ **CE-marked in accordance with EU Directive 98/79/EC**
Compliance with IVD directives in the EU
- ▶ **Fits into *in-vitro* diagnostic workflows**
CE-marked gDNA extraction from whole blood
Can be combined with any enzymatic amplification and detection of gDNA
- ▶ **Compatible with common blood collection tubes and anticoagulants**
Suitable for EDTA, citrate, and heparin blood collecting systems
For fresh and frozen blood samples
- ▶ **Highly reliable DNA isolation from whole blood**
Reproducible results for reliable downstream applications
- ▶ **Convenient handling**
Product storage: at room temperature
Precise photometric measurement of DNA possible

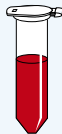
Procedure

NucleoSpin® Dx Blood is based on well-established NucleoSpin® silica-membrane technology and provides an easy way to isolate genomic DNA from 200 µL of whole blood.

The blood samples are lysed in presence of chaotropic salts and Proteinase K. Subsequently, genomic DNA is bound to the NucleoSpin® Dx Blood Column. The DNA on the membrane is washed and finally highly pure genomic DNA is eluted.

1. Sample lysis

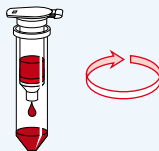
Efficient lysis of fresh or frozen blood
(EDTA, citrate, or heparin treated)



Mix Proteinase K, blood sample, and lysis buffer
15 min incubation

2. Binding of DNA

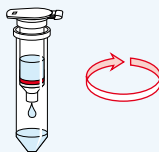
Lysate is loaded in one step



Transfer lysate onto NucleoSpin® Dx Blood Binding Column

3. Washing

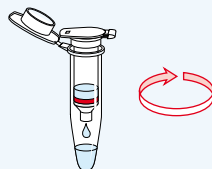
Removal of inhibitors and contaminants by two washing steps



Pipette 1st wash buffer
(high salt concentration)
Pipette 2nd wash buffer
(low salt concentration)

4. Elution of genomic DNA

Elution in azide free elution buffer, allowing direct photometric DNA quantification



Elute DNA in 50–200 µL elution buffer

NucleoSpin® Dx Blood

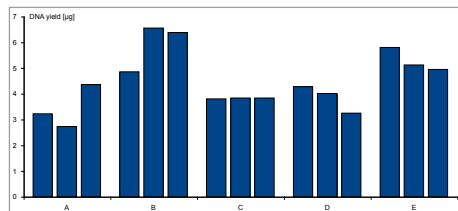
Product at-a-glance

Technology	Silica-membrane technology
Format	Mini spin columns
Sample material	Whole blood, fresh or frozen EDTA, citrate, or heparin treated
Sample volume	200 µL
Typical DNA yield	3–5 µg (depending on individual blood sample)
Typical DNA quality	Ratio A_{260}/A_{280} 1.7–1.9
Elution volume	50–200 µL
Typical DNA concentration	40–60 ng/µL
Processing	Centrifugation
Preparation time	30 min



Application data

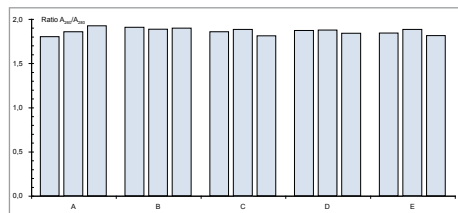
CE-marked procedure – excellent DNA quality – reliable downstream applications



Excellent DNA recovery

DNA was isolated from triplicates of blood samples (200 µL, EDTA) from 5 individuals (A–E).

The DNA yield is 2.7–6.6 µg, depending on blood sample.

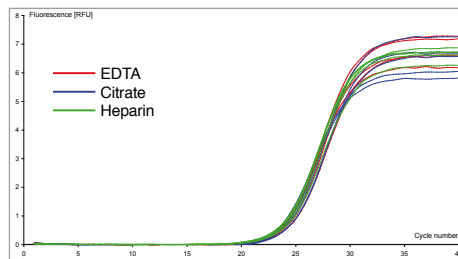


Consistent high purity

Ratio A_{260}/A_{280} was measured for 15 DNA samples (triplicates, from 5 individuals, A–E).

The ratio is consistently between 1.80 and 1.92 indicating excellent DNA quality.

Consistency in DNA quality for best performance in IVD workflows.



Reliable performance regardless the anticoagulant used

DNA was isolated from 15 individual blood samples, stabilized with different anticoagulants: EDTA, citrate, and heparin.

All samples are showing reliable good performance in q-PCR.

LightCycler® (Roche) q-PCR, β -globin specific primer

Compatible with common blood sampling devices, e.g.,

Blood collecting systems	Manufacturer
S-Monovette® Li-Heparin	Sarstedt
S-Monovette® EDTA	Sarstedt
S-Monovette® Citrat	Sarstedt
VACUETTE® EDTA	GREINER BIO-ONE
BD VACUTAINER® K2E	BD Diagnostics
K2 EDTA	APTACA

NucleoSpin® Dx Blood

Reliable DNA isolation for IVD workflows

NucleoSpin® Dx Blood is a generic system for the isolation and purification of genomic DNA from human whole blood samples for subsequent *in-vitro* diagnostic purposes. The kit can be used with fresh and frozen human whole blood treated with EDTA, citrate, and heparin, from common blood collection systems.

NucleoSpin® Dx Blood is designed to be used with any downstream application employing enzymatic amplification and detection of DNA (e.g., PCR) and thus fits perfectly into diagnostic workflows.

Blood collection system
(EDTA, citrate, heparin)

NucleoSpin® Dx Blood
(CE-marked)

PCR amplification

Ordering information

Single prep (spin columns) – CE-IVD marked	Preps	REF
NucleoSpin® Dx Blood*	50 / 250	740899.50 / .250

CE-IVD marked Mini spin kit for the isolation of genomic DNA from 200 µL human whole blood.

Related products

Single prep (spin columns) – CE-IVD marked	Preps	REF
NucleoSpin® Dx Virus	50 / 250	740895.50 / .250

CE-IVD marked Mini spin kit for the isolation of viral DNA and RNA from 150 µL human plasma or serum.

Single prep (spin columns) – not CE-IVD marked	Preps	REF
NucleoSpin® Plasma XS	10 / 50 / 250	740900.10 / .50 / .250

Mini spin kit (XS design columns) for the rapid purification of circulating DNA from plasma or serum.

NucleoSpin® Blood	10 / 50 / 250	740951.10 / .50 / .250
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Mini spin kit for the isolation of DNA from up to 200 µL blood.

NucleoSpin® Blood L	20	740954.20
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Midi spin kit for the isolation of DNA from up to 2 mL blood.

NucleoSpin® Blood XL	10 / 50	740950.10 / .50
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Maxi spin kit for the isolation of DNA from up to 10 mL blood.

Medium and high throughput – not CE-IVD marked	Preps	REF
NucleoSpin® 8 Blood	12 x 8 / 60 x 8	740664 / .5
NucleoSpin® 8 Blood Core** Kit	48 x 8	740455.4
NucleoSpin® 96 Blood	1 x 96 / 4 x 96 / 24 x 96	740665.1 / .4 / .24
NucleoSpin® 96 Blood Core** Kit	4 x 96	740456.4

8-well strips / 96-well plates for automated or manual isolation of genomic DNA from whole blood.

NucleoMag® Blood 200 µL	1 x 96 / 4 x 96	744501.1 / .4
NucleoMag® Blood 3 mL	1 x 96	744502.1

For manual or automated, magnetic-bead based isolation of genomic DNA from whole blood.

Visit www.mn-net.com/bioanalysis for detailed information

Your local distributor

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

** Kits with basic content focussed on automation platforms.
Additional accessories can be combined as needed.

www.mn-net.com

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