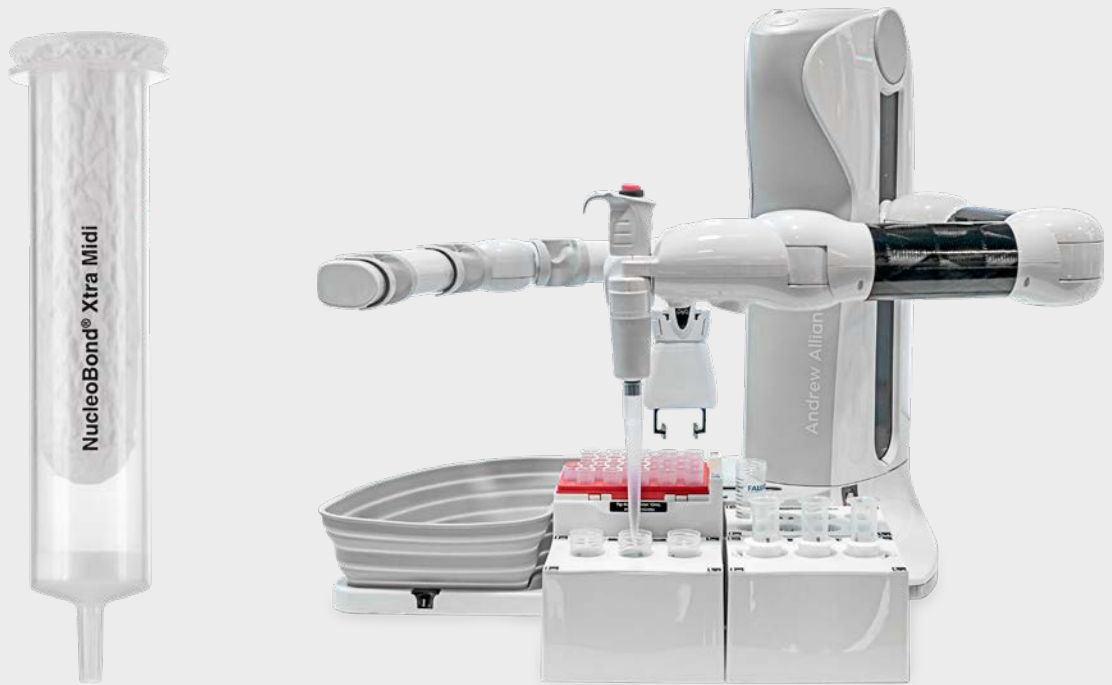


MACHEREY-NAGEL

Automated Plasmid Midi Prep

Bioanalysis



NucleoBond® Xtra Midi automated on Andrew+

Free-up your labtime for doing actual science!

- Up to 6 NucleoBond® Xtra Midi preps in parallel
- High reproducibility and reliability
- Desalting and concentration with NucleoMag® beads

MACHEREY-NAGEL

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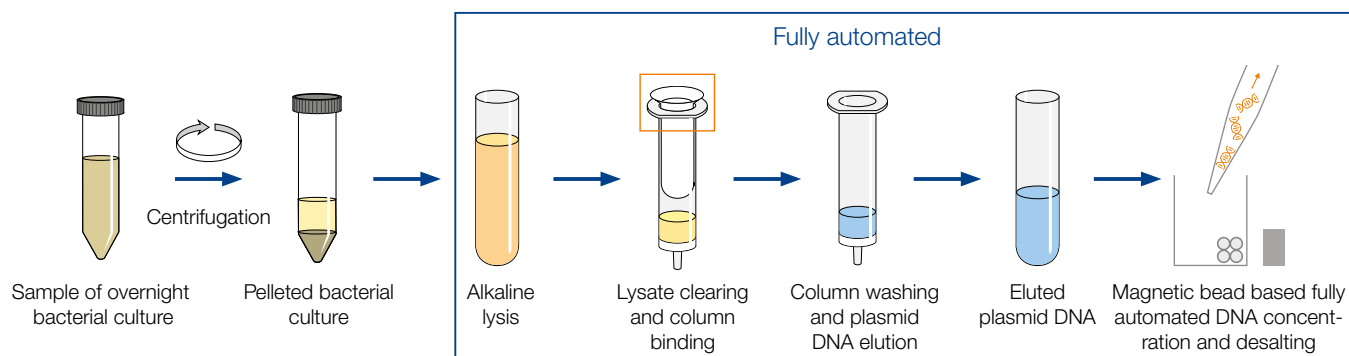


Automated NucleoBond® Xtra Midi

MN and Andrew Alliance – combined expertise

With our long standing experience in chromatography and nucleic acid purification, MACHEREY-NAGEL is an ideal choice for high quality plasmid preps. We have joined forces with Andrew Alliance, an expert in matters of lab automation, liquid

handlers and smart lab software. Together we have developed the hardware and protocols for easy automation of up to 6 plasmid midi preps in parallel, providing you with an option for avoiding the tedious procedure of manual plasmid purification.



Labor saving procedure with Andrew+

The automated workflow of the MN NucleoBond® Xtra Midi kit on the Andrew+ liquid handler dramatically reduces the hands-on time needed for a plasmid midi prep. The Andrew+ robot equipped with the appropriate holders (DOMINO™) performs all steps, from lysate clarification to elution and concentration of pure plasmid DNA, freeing up your valuable time for doing actual

science. Andrew+ empowers scientists to get reproducible data – and the accompanying software, OneLab, offers the most intuitive solution for protocol design and experiment traceability. Andrew+ provides a seamless transition from time-consuming manual pipetting to error-free and easily programmable robotics.

NucleoBond® Xtra Midi – Unmatched performance, now automated on Andrew+

An ever-growing range of biochemical applications require medium to large amounts of plasmid DNA free of contamination with salts and residual bacterial components. With NucleoBond® Xtra yields of up to 500 µg of ultrapure plasmid DNA can be obtained based on reliable and well established anion exchange chromatography. NucleoBond® Xtra Midi kits contain enlarged columns, which lead to lower silica resin beds. This in turn enables faster flow of lysate and buffers through the columns. Specially designed column filters are included for convenient and timesaving clarification of bacterial lysates. The column filters are supplied inserted in the NucleoBond® Xtra Columns and allow parallel clarification of bacterial lysate and loading onto the column. Their large, structured surface leads to high filter flow rates and minimized risk of clogging.

Product at a glance

Technology	Anion exchange chromatography
Sample material	<200 mL bacterial culture (high copy plasmid)
Vector size	< 300 kbp
Theoretical binding capacity	800 µg
Typical yield	Up to 500 µg
Endotoxin level	1–10 EU/µg DNA
A _{260/280}	1.80–2.00
A _{260/230}	> 2.0

Automated NucleoBond® Xtra Midi

Andrew+ configuration for automated NucleoBond® Xtra Midi protocol (6 preps)

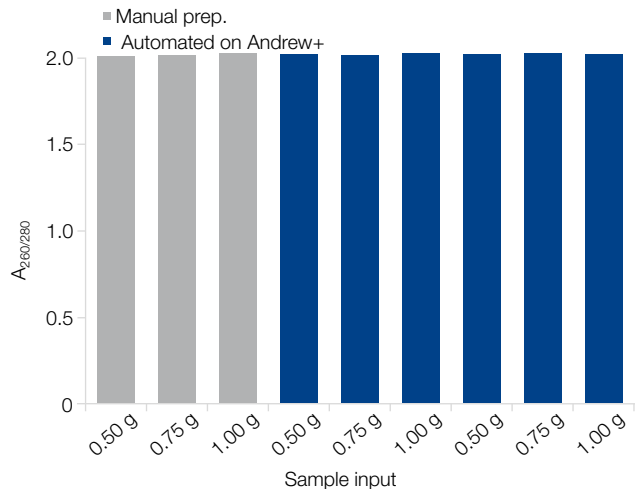
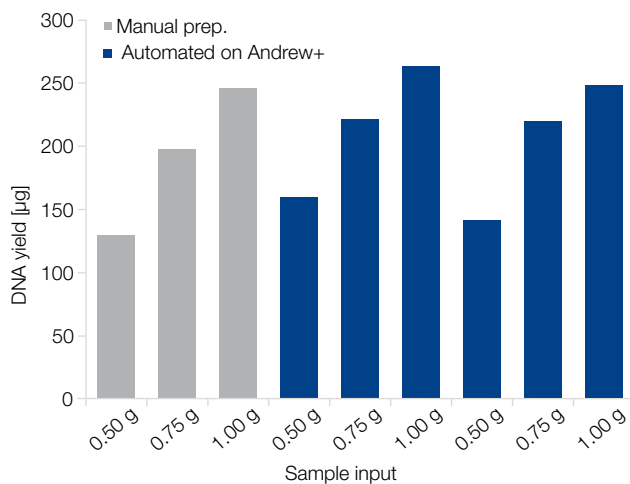


Position	Andrew+ connected devices
1	Tip Rack Holder 10 mL
2, 3	Tip Rack Holder 5 mL
4	Microtube domino
5, 6, 7	50 mL conical centrifuge tube domino
8, 11	Magnet+
9, 10	NucleoBond® Xtra Midi column domino

Reliably high quality with NucleoBond® Xtra Midi - Application data

NucleoBond® Xtra Midi and the Andrew+ combine the high purity and reliability of anion-exchange technology with the user friendliness of a fully automated system system. NucleoBond®

Xtra Midi delivers a reliable yield over a span of sample amounts and is therefore ideally suited for obtaining large amounts of pure plasmid DNA suitable for transfection and in vivo experiments.



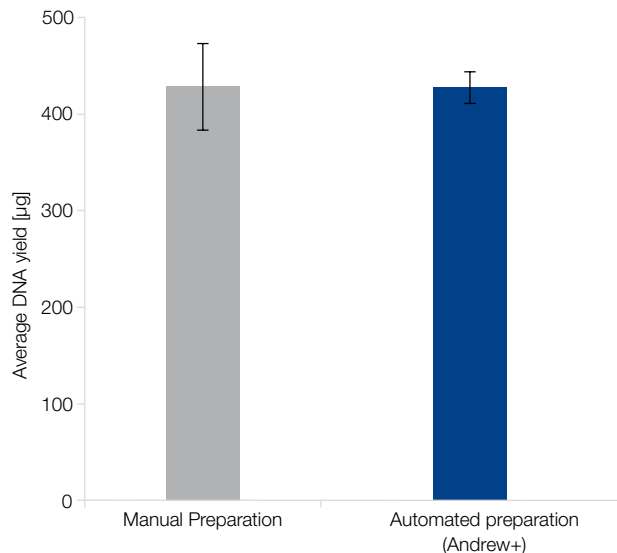
Excelling plasmid yield and purity – manual or automated preparation

Different amounts of *E. coli* culture pellets expressing a high copy plasmid were subjected to the NucleoBond® Xtra Midi procedure, manually (one set of samples) or automated on the Andrew+ robot (two sets of samples). The workflow includes automated desalting and concentration of plasmid DNA with NucleoMag® Desalting Beads. Both the manual preps and the automated preps deliver excellent results regarding plasmid conformation, yield and purity (A_{260/280}).



Automated NucleoBond® Xtra Midi

Reduce sample-to-sample variation by automating NucleoBond® Xtra Midi



Automated processing of NucleoBond® Xtra Midi on the Andrew+ delivers consistently satisfactory yields and minimizes variations in performance usually caused by small deviations during manual processing.

0.8 g of E.coli expressing a high copy plasmid were subjected to the NucleoBond® Xtra Midi procedure, manually (grey bar) or automated on the Andrew+ robot (blue bar; n=6 for each method). Desalting and concentration of plasmid DNA was conducted by the robot using NucleoMag® Desalting Beads. While both methods deliver high amounts of pure plasmid DNA, the yields of the manual preparations show a higher standard variation ($\pm 45.6 \mu\text{g}$) than those of the automated method ($\pm 15.8 \mu\text{g}$). In conclusion, automating the NucleoBond® Xtra Midi preparation on Andrew+ significantly reduces sample-to-sample variations in yield.



Want to schedule an e-demo?
Need additional information?
Contact the MN technical support!
support@mn-net.com
+49 (0) 2421 969 333



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Andrew Alliance

Ordering information

Product	Specifications	Preps	REF
NucleoBond® Xtra Midi	Anion-exchange plasmid midi prep; contains NucleoBond® Xtra Midi Columns with inserted Filters, buffers, RNase A	10	740410.10
		50	740410.50
		100	740410.100
NucleoMag® Desalting Beads	Magnetic beads for desalting of anion exchange plasmid preparation eluates (e. g. NucleoBond® Xtra Midi); contains NucleoMag® beads, Elution Buffer TRIS	50 (scalable)	744410.50

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MACHEREY-NAGEL GmbH & Co. KG
Valenciener Str. 11
52355 Düren · Deutschland

DE Tel.: +49 24 21 969-0 info@mn-net.com
CH Tel.: +41 62 388 55 00 sales-ch@mn-net.com
FR Tel.: +33 388 68 22 68 sales-fr@mn-net.com
US Tel.: +1 888 321 62 24 sales-us@mn-net.com