

Dynamic Devices Liquid Handling + Omega Bio-tek DNA & RNA Purification

Automated magnetic
bead-based
purification solutions

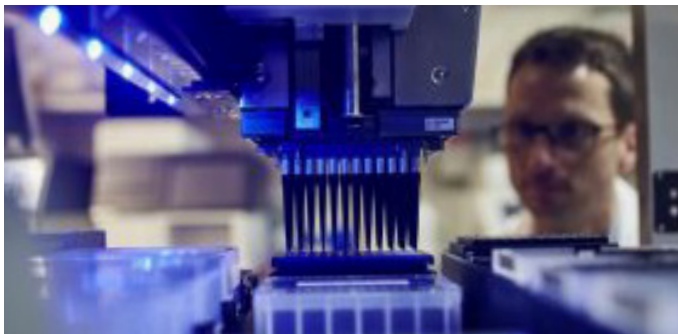
 **omega**
BIO-TEK

omegabiotek.com



Experts in High-Throughput DNA & RNA Purification

Omega Bio-tek focus is nucleic acid purification. With a diversified portfolio of DNA and RNA purification kits utilizing our silica filtration and magnetic bead technology, we can tailor our chemistry and packaging to suit your high-throughput purification needs. Our Mag-Bind® magnetic bead-based systems consist of 9 types of magnetic beads. While other competitors may try to use one type of beads for a variety of sample types, Omega Bio-tek matches our magnetic beads with optimized buffers chemistries to achieve optimal purification efficiency. Together with Dynamic Devices, we accelerate genomics research worldwide.



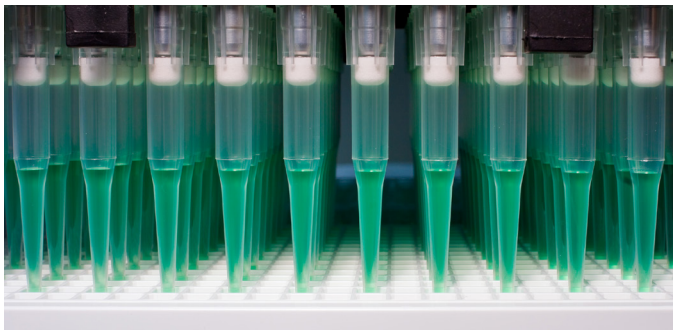
Application Support

Pre- and post- sales, our automation team will guide you through your options and work with you to develop a solution that fits your needs. We offer scripting support for the complete line of Dynamic Devices liquid handlers. Our team will work on-site or remotely to assist with method development and ensure a smooth installation.



Customized Solutions

From simple to complex samples, we can tailor our reagent systems to the customer's needs. We will work with the customer to customize our kits to adapt to their sample type or their workflow.



Cost Savings

The average Omega Bio-tek customer saves over 30% on their consumable costs. The customer might see savings in reagents, as well as plasticware usage, due to our optimized scripts.

Custom Solutions

Build Your Automated Nucleic Acid Purification Workflow

Our in-house team of automation specialists, scientists, and manufacturing experts work with you to design, evaluate, and implement your automated workflows. Our team helps you achieve your throughput requirements, optimize tip usage, and select the buffer system and plasticware to develop your desired workflow on your liquid handlers and magnetic processors.



Consultation

Our automation specialists guide you through your options and work with you to develop a solution that fits your needs. Your automation specialist will listen to your needs and work with you to define and implement what success means to you.



Evaluation

Send your samples to us. Our team will run your samples on our automated platforms as a proof of concept. Samples will be returned to you for further downstream analysis.



Implementation

Our automation specialists develop your automation scripts, existing scripts and expertise developed in more than 25 years of nucleic acid purification. We are available virtually or at your facility to make sure your workflow implementation is successful.



Customization

As the manufacturer of all our kits, we can develop customized solutions to meet your labeling requirements, lot requirements, bottle volumes, and packaging configurations ensuring regulatory compliance, reducing waste from excess components, and optimizing the economies of your solution.

Mag-Bind® cfDNA Kit

Rapid & efficient isolation of circulating, cell-free DNA from 1-10 mL plasma or serum samples

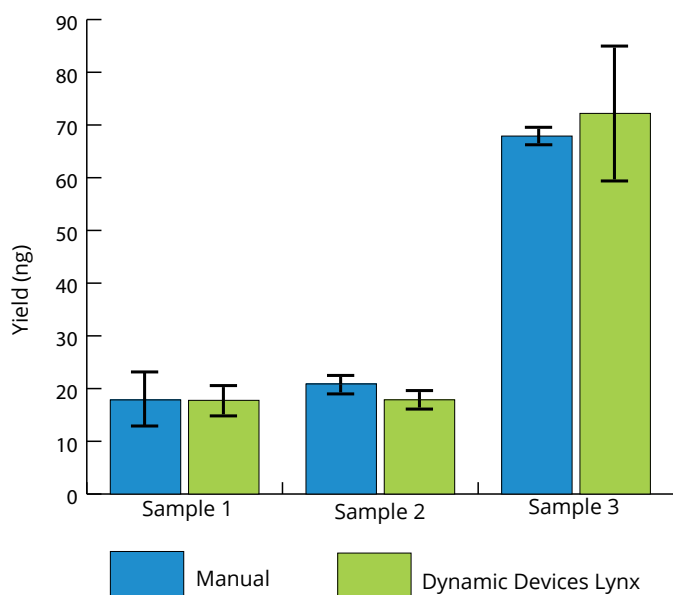
- Isolate cell-free (cfDNA) from up to 10 mL Plasma or Serum with no sample splitting
- Process 24 x 10 mL samples in 65 minutes

Omega Bio-tek and Dynamic Devices offer a novel automated cfDNA purification solution capable of processing plasma samples up to 10 mL without sample splitting. The workflow uses Dynamic Devices' Lynx LM1200 platform with the 24ST Pipetting Tool and 24XL MagRod head in conjunction with Omega Bio-tek's Mag-Bind® cfDNA Kit and E-Z Select® 24-Well Plates. The automated workflow is capable of processing 24 x 10 mL plasma samples in 65 minutes and can handle elution volumes ranging from 75-200 µL.

Features	Specifications
Starting material	Plasma/serum
Starting Amount	1-10 mL
Elution Volume	75-200 µL
Processing Mode	Automated
Format	24-well
Nucleic Acid Binding Technology	Magnetic Beads

Product	Preps	Cat. No.
Mag-Bind® cfDNA Kit	5	M3298-00
	50	M3298-01
	200	M3298-02

High Yields of cfDNA Purified from 10 mL Plasma



Comparable Ct Values Between Manual cfDNA Extraction and the Dynamic Devices Lynx

Sample	Manual			Dynamic Devices Lynx		
	2 µL	6 µL	Δ Ct	2 µL	6 µL	Δ Ct
1	29.12 ± 0.33	28.77 ± 0.38	-0.85	29.28 ± 0.48	27.73 ± 0.50	-1.55
2	29.51 ± 0.28	28.27 ± 0.10	-1.24	29.64 ± 0.17	28.22 ± 0.16	-1.42
3	28.39 ± 0.30	27.73 ± 0.37	-0.67	28.52 ± 0.25	29.96 ± 0.14	-1.56

cfDNA was extracted from 10 mL plasma using the Dynamic Devices Lynx®, as well as manual methods. Yield values were comparable between extraction methods.

Mag-Bind® Blood & Tissue DNA HDQ 96 Kit

High throughput DNA isolation from blood, buccal swabs, saliva, & tissue using magnetic beads

- **DNA Extraction from Blood, Saliva, Buffy Coat, Buccal Swabs, Cultured Cells, and Tissues**
- **High-Quality DNA is ready for NGS, Microarrays, and qPCR**

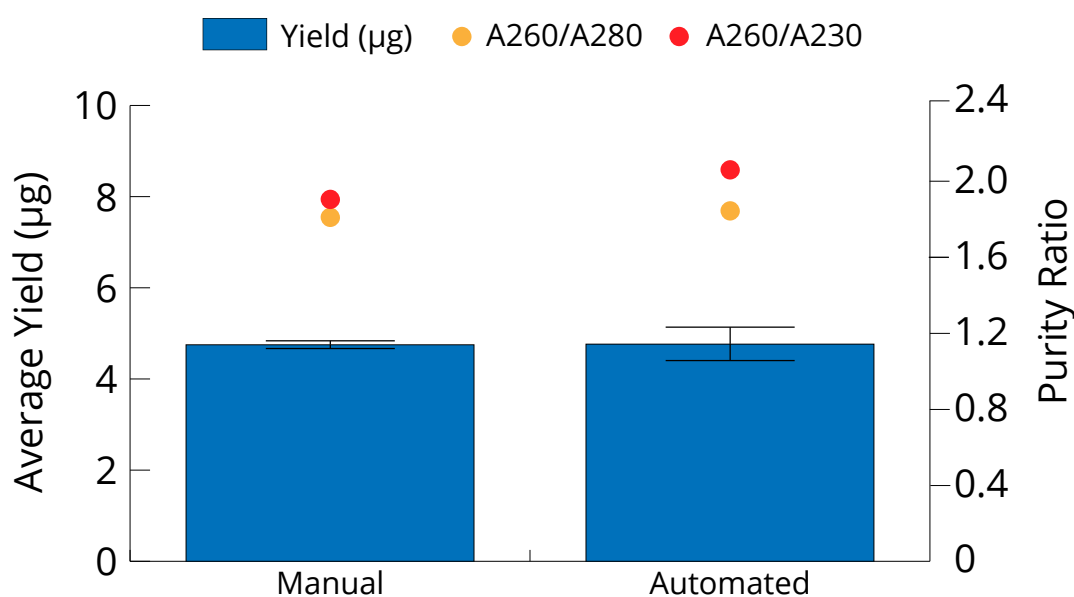
The Mag-Bind® Blood & Tissue DNA HDQ 96 Kit is designed for the rapid and reliable isolation of high-quality genomic DNA from 100-250 µL of blood samples, 500 µL saliva, swabs, mouse tails, dried blood spots, tissues, or 5×10^6 cultured cells. Mag-Bind® Particles HDQ provide quick magnetic response times, thereby reducing overall processing time. This system combines the reversible nucleic acid-binding properties of Mag-Bind® paramagnetic particles with the proven efficiency of Omega Biotek's blood and tissue DNA isolation system to provide a rapid and robust method for the isolation of DNA from a variety of biological samples.

The extracted genomic DNA is high-quality and suitable for use in downstream applications such as PCR and Next-Generation Sequencing (NGS).

Features	Specifications
Starting material	Blood, saliva, swabs, mouse tails, dried blood spots, cultured cells
Starting Amount	100-250 µL blood samples, 500 µL saliva, swabs, mouse tails, dried blood spots, or 5×10^6 cultured cells
Elution Volume	50-200 µL
Processing Mode	Automated
Nucleic Acid Binding Technology	Magnetic Beads
Downstream Application	NGS, qPCR, microarray

Product	Preps	Cat. No.
Mag-Bind® Blood & Tissue DNA HDQ 96 Kit	1 x 96	M6399-00
	4 x 96	M6399-01

Comparable DNA Yields Regardless of Extraction Method



Genomic DNA was extracted from 250 µL of whole blood using the Mag-Bind® Blood & Tissue DNA HDQ 96 Kit both manually, following manufacturer's instructions, and automated on the Dynamic Devices Lynx system. DNA yield and quality were analyzed via Thermo Scientific's NanoDrop® 2000c. The average yields of DNA between manual and automated extraction methods were found to be comparable, while purity ratios improved for the automated method.

Mag-Bind® Endo-free Plasmid Midi Kit

Purify endotoxin free (<0.1 EU/μg) plasmid DNA using magnetic beads from up to 50 mL culture volume

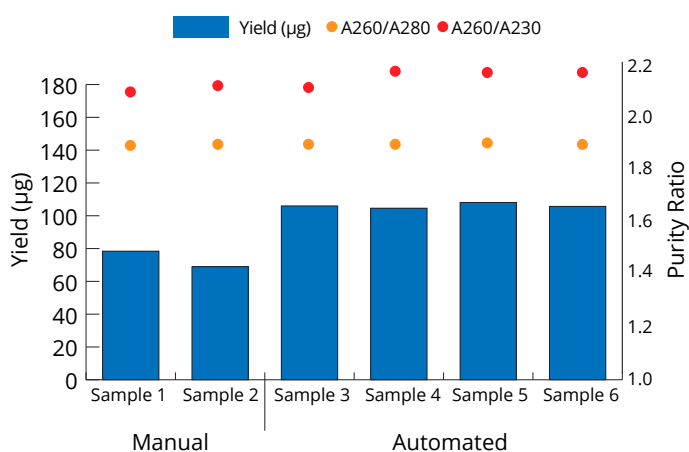
- **Rapid** - 24 x 50 mL samples process in ~80 minutes.
- **Automated lysate clearance avoids manual centrifugation.**
- **Versatile** - Process up to 50 mL bacterial culture with different plasmid types and culture medias
- **Transfection-quality** - Endotoxin-free plasmid DNA (< 0.1 EU/μg)

Omega Bio-tek and Dynamic Devices offer a novel automated plasmid purification solution capable of processing culture input samples up to 50 mL without manual centrifugation. The workflow uses Dynamic Devices' Lynx platform with the 24ST Pipetting Tool and 24XL MagRod head in conjunction with Omega Bio-tek's Mag-Bind® Endo-free Plasmid Midi Kit and E-Z Select® 24-Well Plates. This workflow integrates multiple steps, such as alkaline lysis, binding, washing, and elution, into an automated process that minimizes hands-on time while ensuring consistent results. The automated workflow is capable of processing 24 x 50 mL bacterial cultures in ~80 minutes.

Features	Specifications
Starting material	Bacteria harboring high-copy or low-copy plasmid in LB, TB, or other suitable culture media.
Starting Amount	Up to 50 mL bacterial culture in LB or up to 10 mL bacterial culture in TB
Elution Volume	100 μL
Processing Mode	Automated
Throughput	1-24
Endotoxin Levels	< 0.1 EU/μg
Lysate Clearance Methodology	Magnetic beads, syringe, or centrifugation

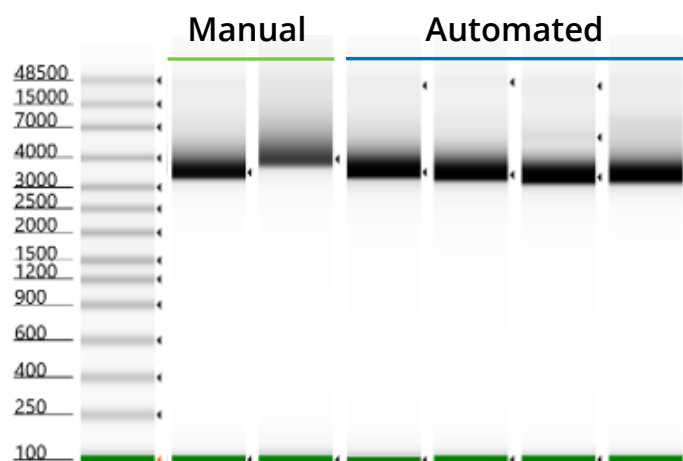
Product	Preps	Cat. No.
Mag-Bind® Endo-free Plasmid Midi Kit	1 x 96	M1272-00
	4 x 96	M1272-01

Consistent Plasmid DNA Yields with Excellent Purity Ratios



pGEM Plasmid DNA was extracted from 50 mL bacterial pellet manually using the Mag-Bind® Endo-free Plasmid Midi Kit, according to manufacturer's instructions, as well as using the Kit automated on the Dynamic Devices Lynx® platform. Average yields were 1.5X higher for automated extraction vs manual. A260/A280 and A260/A230 ratios were comparable between the two methods.

Comparable Plasmid Integrity Regardless of Extraction Method



pGEM Plasmid DNA was extracted from 50 mL bacterial pellet manually using the Mag-Bind® Endo-free Plasmid Midi Kit, according to manufacturer's instructions, as well as using the Kit automated on Dynamic Devices' Lynx platform. TapeStation analysis shows comparable integrity between the two methods.





Omega Bio-tek Inc.
400 Pinnacle Way, Suite 450
Norcross, GA 30071

www.omegabiotek.com

© 2025 Omega Bio-tek, Inc. All rights reserved. Mag-Bind is a trademark of Omega Bio-tek, Inc. All other trademarks and trade names are the property of their respective holders. For research use only. Lit. No. SL-0054