

Nucleic Acid Isolation, Quantitation, And Purification - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

Market Report | 2025-09-01 | 115 pages | Mordor Intelligence

AVAILABLE LICENSES:

- Single User License \$4750.00
- Team License (1-7 Users) \$4500.00
- Site License \$6500.00
- Corporate License \$8750.00

Report description:

Nucleic Acid Isolation, Quantitation, And Purification Market Analysis

The nucleic acid isolation and purification market size generated USD 5.59 billion in 2025 and is forecast to reach USD 8.78 billion by 2030, advancing at a 9.4% CAGR. Demand rises as clinical laboratories embed next-generation sequencing into routine oncology workflows, national genomics programs expand sample throughput, and automation curbs staffing shortages. DeepMind's AlphaGenome has shown the capacity to read 1 million DNA bases in a single run, underscoring how extraction quality now directly influences downstream analytics. Magnetic bead systems, improved microfluidics and point-of-care formats reinforce this shift by cutting contamination and hands-on time. Capital inflows from biopharmaceutical firms and public research agencies sustain product development across high-throughput platforms, kits and consumables.

Global Nucleic Acid Isolation, Quantitation, And Purification Market Trends and Insights

Surge in Clinical-Grade NGS Demand

Growing use of NGS in oncology raises extraction specifications for formalin-fixed and liquid biopsy samples. Labcorp reports threefold better DNA quality from FFPE tissue when using focused acoustics instruments that minimize fragmentation. Liquid biopsy assays require purification systems able to enrich circulating tumor DNA constituting under 1% of total cell-free DNA. Suppliers therefore price premium kits that safeguard integrity, reduce PCR inhibitors and match regulatory documentation for clinical accreditation.

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scott-international.com

www.scott-international.com

National Genomics Initiatives

Government sequencing programs keep order volumes stable by standardizing high-throughput protocols. Australia's Genomics Health Futures Mission has committed USD 500.1 million for more than 200 000 citizens, fuelling demand for automated bead platforms that can process diverse blood and tissue inputs. Similar multi-omics efforts in the US and UK reinforce global harmonization, encouraging vendors to ship pre-validated chemistries that deliver consistent yield across distributed sites.

High Instrument & Reagent Costs

Automated extractors can cost USD 100 000-500 000 and consumables add USD 10-50 per sample, limiting adoption in smaller labs. Low-cost alternatives such as filter paper-spin columns have reduced per-sample expense while retaining adequate purity. Some vendors now market reusable resin cartridges and long-life beads to trim operating budgets.

Other drivers and restraints analyzed in the detailed report include:

Increased R&D Funding in Molecular Biology / Microfluidic Extraction for PoC Devices / Low Penetration in Emerging Markets /

For complete list of drivers and restraints, kindly check the Table Of Contents.

Segment Analysis

Magnetic beads delivered the largest contribution to the nucleic acid isolation and purification market size, with 52.1% of 2024 revenue and an 11.4% growth trajectory to 2030. This format binds DNA or RNA to silica-coated beads under chaotropic salts, then allows magnet-assisted washing that avoids centrifugation. Workflow speed improves further with formulations such as Cytiva's guanidinium-thiocyanate chemistry, which inhibits nucleases while ensuring high recovery.

Column-based kits still serve manual setups because their cost per extraction remains lower, yet adoption declines in high-throughput labs. New bead protocols like SHIFT-SP reach near-complete recovery inside seven minutes, supporting clinical turnaround demands. Their compatibility with liquid handlers anchors their long-term advantage.

Kits and reagents secured 48.3% of 2024 sales, reflecting routine replenishment cycles in diagnostics and research. However, equipment revenue grows fastest at 11.8% CAGR as laboratories invest in robotic extractors that enforce standardization. Beckman Coulter's OptiMATE Gradient Maker cut ultracentrifugation from three days to six hours, underscoring how instrumentation improves virus-vector workflows.

Spectrophotometers and fluorometers meet stricter quality-control rules that accompany clinical sequencing. Revvity's chemagic 360 spans 50 µl to 18 ml inputs, pairing software tracking with barcode integration for audit readiness. Consumables such as tips and magnetic rods keep recurring revenues resilient.

The Nucleic Acid Isolation, Quantitation, and Purification Market Report is Segmented by Technology (Column-Based Purification, and More), Product (Kits & Reagents, Equipment, and Other Products), Application (Total RNA Isolation & Purification, and More), End-User (Hospitals, and More), Geography (North America, Europe, Asia-Pacific, and More). The Market Forecasts are Provided in Terms of Value (USD).

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Geography Analysis

North America retained 42.4% of the nucleic acid isolation and purification market in 2024 thanks to NIH-funded translational genomics, dense biotech clusters and an FDA decision to reclassify high-risk in-vitro diagnostics to Class II, trimming approval timelines. The United States anchors sales, while Canadian and Mexican labs enlarge regional throughput with cross-border clinical-trial activity.

Europe follows with harmonized regulatory frameworks that ease multi-nation research. Germany, the UK and France command instrument procurements driven by established pharmaceutical manufacturing. Wellcome Trust funding of population biobanking sustains demand for automated bead platforms that ensure data integrity across consortium sites. Emphasis on data privacy increases sales of software-embedded extractors that log sample identity.

Asia-Pacific is projected to post a 10.4% CAGR through 2030, fastest worldwide. China's pharmaceutical policy backs local nucleic acid drug production, fostering large reagent orders, while India's cost-efficient gene-therapy initiatives encourage adoption of flexible microfluidic kits. Australia's Genomics Health Futures Mission adds institutional budgets for high-throughput sequencers and extraction robots. Japan and South Korea emphasize precision medicine, lifting demand for high-purity, multi-analyte purification consumables.

List of Companies Covered in this Report:

Agilent Technologies / Illumina / QIAGEN / Bio-Rad Laboratories / Danaher Corp. (Beckman Coulter) / GE Healthcare / Roche / Merck / Thermo Fisher Scientific / Takara Holdings / Promega Corp. / Revvity (PerkinElmer) / Biovision / Zymo Research / New England Biolabs / Norgen Biotek / Omega Bio-tek / Analytik Jena / Sartorius / Aurora Biomed /

Additional Benefits:

The market estimate (ME) sheet in Excel format /
3 months of analyst support /

Table of Contents:

- 1 Introduction
 - 1.1 Study Assumptions & Market Definition
 - 1.2 Scope of the Study
- 2 Research Methodology
- 3 Executive Summary
- 4 Market Landscape
 - 4.1 Market Overview
 - 4.2 Market Drivers
 - 4.2.1 Surge in Clinical-Grade NGS Demand
 - 4.2.2 National Genomics Initiatives
 - 4.2.3 Increased R&D Funding in Molecular Biology
 - 4.2.4 Workflow Automation & High-Throughput Platforms
 - 4.2.5 Microfluidic Extraction for PoC Devices

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 4.2.6 Synthetic Biology & CRISPR Screening Boom
- 4.3 Market Restraints
 - 4.3.1 High Instrument & Reagent Costs
 - 4.3.2 Low Penetration in Emerging Markets
 - 4.3.3 Resin & Silica Supply-Chain Risks
 - 4.3.4 Hazardous Waste-Disposal Regulation Tightening
- 4.4 Regulatory Landscape
- 4.5 Porter's Five Forces Analysis
 - 4.5.1 Threat of New Entrants
 - 4.5.1.1 Bargaining Power of Buyers
 - 4.5.1.2 Bargaining Power of Suppliers
 - 4.5.1.3 Threat of Substitutes
 - 4.5.1.4 Intensity of Competitive Rivalry

5 Market Size & Growth Forecasts (Value, USD)

- 5.1 By Technology
 - 5.1.1 Column-based Purification
 - 5.1.2 Magnetic Bead-based Purification
 - 5.1.3 Reagent-based Purification
- 5.2 By Product
 - 5.2.1 Kits & Reagents
 - 5.2.1.1 NA Isolation & Purification Kits
 - 5.2.1.2 NA Quantitation Kits
 - 5.2.1.2.1 DNA Quantitation Kits
 - 5.2.1.2.2 RNA Quantitation Kits
 - 5.2.2 Equipment
 - 5.2.2.1 NA Isolation & Purification Instruments
 - 5.2.2.2 NA Quantitation Instruments
 - 5.2.2.2.1 Spectrophotometer
 - 5.2.2.2.2 Fluorometer
 - 5.2.3 Other Products
- 5.3 By Application
 - 5.3.1 Total RNA Isolation & Purification
 - 5.3.2 mRNA Isolation & Purification
 - 5.3.3 microRNA Isolation & Purification
 - 5.3.4 Plasmid DNA Isolation & Purification
 - 5.3.5 Genomic DNA Isolation & Purification
 - 5.3.6 Blood DNA Isolation & Purification
 - 5.3.7 PCR Clean-up
 - 5.3.8 Biobanking
 - 5.3.9 Clinical Research
 - 5.3.10 Forensics
 - 5.3.11 Drug Development
 - 5.3.12 Other Applications
- 5.4 By End-user
 - 5.4.1 Hospitals
 - 5.4.2 Academia

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

5.4.3 Pharmaceutical / Biotechnology Industry

5.4.4 CRO

5.5 Geography

5.5.1 North America

5.5.1.1 United States

5.5.1.2 Canada

5.5.1.3 Mexico

5.5.2 Europe

5.5.2.1 Germany

5.5.2.2 United Kingdom

5.5.2.3 France

5.5.2.4 Italy

5.5.2.5 Spain

5.5.2.6 Rest of Europe

5.5.3 Asia-Pacific

5.5.3.1 China

5.5.3.2 Japan

5.5.3.3 India

5.5.3.4 Australia

5.5.3.5 South Korea

5.5.3.6 Rest of Asia-Pacific

5.5.4 Middle East & Africa

5.5.4.1 GCC

5.5.4.2 South Africa

5.5.4.3 Rest of Middle East & Africa

5.5.5 South America

5.5.5.1 Brazil

5.5.5.2 Argentina

5.5.5.3 Rest of South America

6 Competitive Landscape

6.1 Market Concentration

6.2 Market Share Analysis

6.3 Company Profiles (includes Global level Overview, Market level overview, Core Business Segments, Financials, Headcount, Key Information, Market Rank, Market Share, Products and Services, and analysis of Recent Developments)

6.3.1 Agilent Technologies

6.3.2 Illumina Inc.

6.3.3 QIAGEN

6.3.4 Bio-Rad Laboratories Inc.

6.3.5 Danaher Corp. (Beckman Coulter)

6.3.6 GE HealthCare

6.3.7 F. Hoffmann-La Roche Ltd

6.3.8 Merck KGaA

6.3.9 Thermo Fisher Scientific Inc.

6.3.10 Takara Holdings

6.3.11 Promega Corp.

6.3.12 Revvity (PerkinElmer)

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 6.3.13 BioVision Inc.
- 6.3.14 Zymo Research
- 6.3.15 New England Biolabs
- 6.3.16 Norgen Biotek Corp.
- 6.3.17 Omega Bio-tek
- 6.3.18 Analytik Jena
- 6.3.19 Sartorius AG
- 6.3.20 Aurora Biomed Inc.

7 Market Opportunities & Future Outlook

7.1 White-space & Unmet-need Assessment

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

**Nucleic Acid Isolation, Quantitation, And Purification - Market Share Analysis,
Industry Trends & Statistics, Growth Forecasts (2025 - 2030)**

Market Report | 2025-09-01 | 115 pages | Mordor Intelligence

To place an Order with Scotts International:

- Print this form
- Complete the relevant blank fields and sign
- Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	\$4750.00
	Team License (1-7 Users)	\$4500.00
	Site License	\$6500.00
	Corporate License	\$8750.00
		VAT
		Total

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*	<input type="text"/>	Phone*	<input type="text"/>
First Name*	<input type="text"/>	Last Name*	<input type="text"/>
Job title*	<input type="text"/>		
Company Name*	<input type="text"/>	EU Vat / Tax ID / NIP number*	<input type="text"/>
Address*	<input type="text"/>	City*	<input type="text"/>
Zip Code*	<input type="text"/>	Country*	<input type="text"/>
		Date	<input type="text" value="2026-03-01"/>
		Signature	

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

