

Next-generation Sequencing (NGS) Diagnostics Market - Strategic Insights and Forecasts (2026-2031)

<https://marketpublishers.com/r/NDD26F2B43CEEN.html>

Date: April 2026

Pages: 148

Price: US\$ 3,950.00 (Single User License)

ID: NDD26F2B43CEEN

Abstracts

The Next-Generation Sequencing (NGS) Diagnostics market is forecast to grow at a CAGR of 15.9%, reaching USD 21.1 billion in 2031 from USD 10.1 billion in 2026.

The global next-generation sequencing (NGS) diagnostics market is positioned as a cornerstone of modern precision medicine, enabling comprehensive genetic analysis for accurate disease diagnosis and personalized treatment planning. NGS technologies allow rapid sequencing of DNA and RNA, supporting applications in oncology, rare disease diagnostics, infectious disease detection, and reproductive health. The market is experiencing strong growth due to the increasing adoption of genomic medicine, declining sequencing costs, and expanding clinical applications. Healthcare systems are integrating NGS into routine diagnostics to improve patient outcomes and enable targeted therapeutic interventions. In parallel, advancements in bioinformatics and data analytics are enhancing the clinical utility of sequencing data, supporting faster and more precise decision-making.

Market Drivers

A key driver is the rising prevalence of cancer and genetic disorders, which require advanced diagnostic solutions for early detection and targeted treatment. NGS enables detailed genomic profiling, helping clinicians identify mutations and select appropriate therapies. This capability is driving widespread adoption in oncology and rare disease diagnostics.

Declining costs of sequencing technologies are also accelerating market growth. Continuous innovation in sequencing platforms and reagents has significantly reduced the cost per genome, making NGS more accessible to healthcare providers and

research institutions.

Another major driver is the growing adoption of precision medicine. NGS plays a critical role in biomarker identification, companion diagnostics, and personalized treatment planning. Increasing investments in genomics research and national precision medicine initiatives are further supporting market expansion.

Market Restraints

High initial investment and operational costs remain key challenges. Implementing NGS diagnostics requires advanced laboratory infrastructure, skilled personnel, and robust data analysis capabilities, which can limit adoption in resource-constrained settings.

Data management and interpretation complexity also pose constraints. NGS generates large volumes of genomic data that require sophisticated bioinformatics tools and expertise for accurate analysis.

Regulatory and reimbursement challenges further impact market growth. Variability in approval processes and limited reimbursement policies for genomic testing can hinder widespread adoption.

Technology and Segment Insights

The market is segmented by technology, application, end-user, and region. Sequencing platforms and consumables represent significant segments, with consumables accounting for a recurring revenue stream due to continuous usage in testing workflows.

By application, oncology dominates the market due to the increasing use of genomic profiling in cancer diagnosis and treatment selection. Other key applications include infectious diseases, reproductive health, and genetic disorder diagnostics.

End-users include hospitals, diagnostic laboratories, and research institutions. Diagnostic laboratories hold a major share due to their specialized capabilities and high testing volumes.

Technological advancements such as high-throughput sequencing, single-cell sequencing, and integration with artificial intelligence are enhancing performance, accuracy, and scalability of NGS diagnostics.

Competitive and Strategic Outlook

The competitive landscape is characterized by strong participation from global life sciences and diagnostics companies. Key players such as Illumina, Thermo Fisher Scientific, Roche, Agilent Technologies, and BGI Genomics are investing in advanced sequencing platforms, expanding product portfolios, and strengthening global distribution networks.

Strategic initiatives include partnerships with healthcare providers, development of integrated sequencing and bioinformatics solutions, and expansion into emerging markets. Companies are also focusing on reducing sequencing costs and improving data analysis capabilities to enhance adoption.

Conclusion

The global NGS diagnostics market is expected to witness robust growth, driven by increasing demand for genomic testing, advancements in sequencing technologies, and expanding applications in precision medicine. While high costs, data complexity, and regulatory challenges remain key barriers, continuous innovation and growing clinical adoption will support long-term market expansion.

Key Benefits of this Report

Insightful Analysis: Gain detailed market insights across regions, customer segments, policies, socio-economic factors, consumer preferences, and industry verticals.

Competitive Landscape: Understand strategic moves by key players to identify optimal market entry approaches.

Market Drivers and Future Trends: Assess major growth forces and emerging developments shaping the market.

Actionable Recommendations: Support strategic decisions to unlock new revenue streams.

Caters to a Wide Audience: Suitable for startups, research institutions, consultants, SMEs, and large enterprises.

What Businesses Use Our Reports For

Industry and market insights, opportunity assessment, product demand forecasting, market entry strategy, geographical expansion, capital investment decisions, regulatory analysis, new product development, and competitive intelligence.

Report Coverage

Historical data from 2021 to 2025 and forecast data from 2026 to 2031

Growth opportunities, challenges, supply chain outlook, regulatory framework, and trend analysis

Competitive positioning, strategies, and market share evaluation

Revenue growth and forecast assessment across segments and regions

Company profiling including strategies, products, financials, and key developments

Contents

1. EXECUTIVE SUMMARY

2. MARKET SNAPSHOT

- 2.1. Market Overview
- 2.2. Market Definition
- 2.3. Scope of the Study
- 2.4. Market Segmentation

3. BUSINESS LANDSCAPE

- 3.1. Market Drivers
- 3.2. Market Restraints
- 3.3. Market Opportunities
- 3.4. Porter's Five Forces Analysis
- 3.5. Industry Value Chain Analysis
- 3.6. Policies and Regulations
- 3.7. Strategic Recommendations
- 3.8. Product Pipeline Analysis
- 3.9. Incidence and Prevalence Analysis
- 3.10. Patent Analysis

4. TECHNOLOGICAL OUTLOOK

5. NEXT-GENERATION SEQUENCING (NGS) DIAGNOSTICS MARKET BY COMPONENT TYPE

- 5.1. Introduction
- 5.2. Instruments
- 5.3. Reagents & Kits
- 5.4. Software & Services

6. NEXT-GENERATION SEQUENCING (NGS) DIAGNOSTICS MARKET BY TECHNOLOGY

- 6.1. Introduction
- 6.2. Whole Genome Sequencing

- 6.3 Whole Exome Sequencing
- 6.4 Targeted Sequencing
- 6.5 RNA Sequencing

7. NEXT-GENERATION SEQUENCING (NGS) DIAGNOSTICS MARKET BY APPLICATION

- 7.1. Introduction
- 7.2. Oncology
- 7.3. Infectious Diseases
- 7.4. Genetic Disorders
- 7.5. Reproductive Health
- 7.6. Pharmacogenomics

8. NEXT-GENERATION SEQUENCING (NGS) DIAGNOSTICS MARKET BY GEOGRAPHY

- 8.1. Introduction
- 8.2. North America
 - 8.2.1. USA
 - 8.2.2. Canada
 - 8.2.3. Mexico
- 8.3. South America
 - 8.3.1. Brazil
 - 8.3.2. Argentina
 - 8.3.3. Others
- 8.4. Europe
 - 8.4.1. United Kingdom
 - 8.4.2. Germany
 - 8.4.3. France
 - 8.4.4. Spain
 - 8.4.5. Others
- 8.5. Middle East and Africa
 - 8.5.1. Saudi Arabia
 - 8.5.2. UAE
 - 8.5.3. Others
- 8.6. Asia Pacific
 - 8.6.1. China
 - 8.6.2. India

- 8.6.3. Japan
- 8.6.4. South Korea
- 8.6.5. Indonesia
- 8.6.6. Thailand
- 8.6.7. Others

9. COMPETITIVE ENVIRONMENT AND ANALYSIS

- 9.1. Major Players and Strategy Analysis
- 9.2. Market Share Analysis
- 9.3. Mergers, Acquisitions, Agreements, and Collaborations
- 9.4. Competitive Dashboard

10. COMPANY PROFILES

- 10.1. Illumina
- 10.2. Thermo Fisher Scientific
- 10.3. Roche Diagnostics
- 10.4. Agilent Technologies
- 10.5. QIAGEN
- 10.6. Bio-Rad Laboratories
- 10.7. Danaher Corporation
- 10.8. BGI Genomics
- 10.9. Oxford Nanopore Technologies
- 10.10. Pacific Biosciences

11. APPENDIX

- 11.1. Currency
- 11.2. Assumptions
- 11.3. Base and Forecast Years Timeline
- 11.4. Key benefits for the stakeholders
- 11.5. Research Methodology
- 11.6. Abbreviations

I would like to order

Product name: Next-generation Sequencing (NGS) Diagnostics Market - Strategic Insights and Forecasts (2026-2031)

Product link: <https://marketpublishers.com/r/NDD26F2B43CEEN.html>

Price: US\$ 3,950.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/NDD26F2B43CEEN.html>