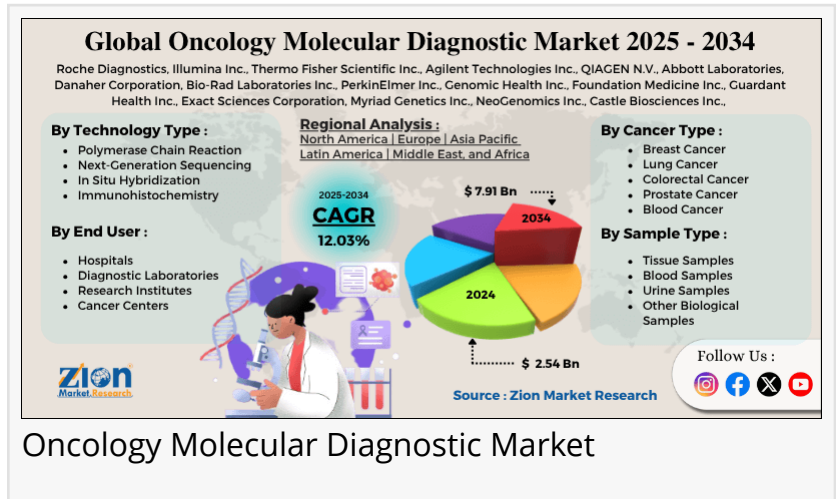


Oncology Molecular Diagnostic Market Size Report 2024-2034: From USD 2.54 Billion to USD 7.91 Billion at a 12.03% CAGR

The global oncology molecular diagnostic market was valued at approximately USD 2.54 billion in 2024 and is expected to reach around USD 7.91 billion by 2034

PUNE, MAHARASHTRA, INDIA, August 20, 2025 /EINPresswire.com/ -- Market Overview

The [global oncology molecular diagnostic market Size](#) was valued at approximately USD 2.54 billion in 2024 and is projected to reach nearly USD 7.91 billion by 2034, expanding at a compound annual growth rate (CAGR) of around 12.03% between 2025 and 2034.



“

global oncology molecular diagnostic market was valued at approximately USD 2.54 billion in 2024 and is expected to reach around USD 7.91 billion by 2034,(CAGR) of roughly 12.03% between 2025 and 2034”

Deepak Rupnar

become central to oncology care.

Key Insights:

As per the analysis shared by our research analyst, the global oncology molecular diagnostic

Access key findings and insights from our Report in this sample -

<https://www.zionmarketresearch.com/sample/oncology-molecular-diagnostic-market>

Molecular diagnostics in oncology involve genetic and molecular-level testing to identify biomarkers, mutations, and other cellular alterations that drive cancer development. These technologies play a crucial role in early cancer detection, prognosis assessment, treatment selection, and therapy monitoring. The market is gaining momentum as personalized medicine, companion diagnostics, and next-generation sequencing (NGS)

market is estimated to grow annually at a CAGR of around 12.03% over the forecast period (2025-2034)

In terms of revenue, the global oncology molecular diagnostic market size was valued at around USD 2.54 billion in 2024 and is projected to reach USD 7.91 billion by 2034.

The oncology molecular diagnostic market is projected to grow significantly due to increasing cancer incidence rates, advancements in genomic technologies, and the rising adoption of companion diagnostics for targeted therapy selection.

Based on technology type, next-generation sequencing leads the segment and is expected to continue dominating the global market.

Based on cancer type, breast cancer is expected to lead the market.

Based on sample type, tissue samples are anticipated to command the largest market share.

Based on end-users, hospitals are expected to lead the market during the forecast period.

Based on region, North America is projected to lead the global market during the forecast period.

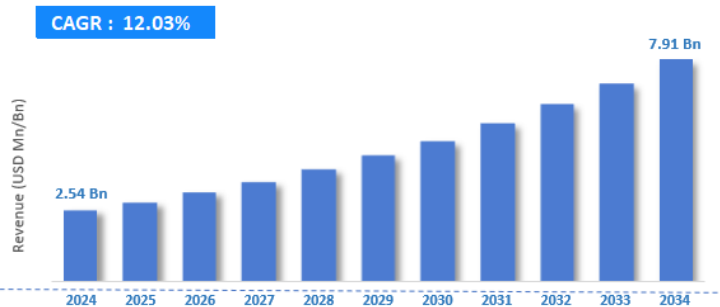
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Key Market Drivers

Rising Cancer Incidence Worldwide

The growing global burden of cancer is the primary driver. According to health organizations, millions of new cancer cases are diagnosed annually, creating significant demand for accurate and early diagnostic solutions.

Global Oncology Molecular Diagnostic Market, 2020-2034 (USD Billion)



Source: Zion Market Research



Oncology Molecular Diagnostic Market Size

Global Oncology Molecular Diagnostic Market

Key Players



Diagnostics

illumina

ThermoFisher
SCIENTIFIC



Abbott



JANAHER

BIO-RAD



PerkinElmer
For the Better

Genomic Health

FOUNDATION
MEDICINE

GUARDANT
HEALTH

EXACT
SCIENCES

MYRIAD
GENETICS

MYRIAD

CASTLE
BIOSCIENCES

verocyte

MOLECULAR
MD CORP.

PERSONAL
GENOME
DIAGNOSTICS

TEMPUS
LABS

Carbbionist

MOLECULAR MILE

Monnit kule bc

Oncology Molecular Diagnostic Market Competitive Analysis

Advancements in Genomics and Molecular Biology

The rapid adoption of NGS, PCR, liquid biopsy, and biomarker-based assays is transforming the landscape of oncology diagnostics, enabling faster and more precise results.

Personalized and Precision Medicine

Molecular diagnostics are essential for tailoring therapies to the genetic profile of individual patients, making targeted treatments more effective and reducing side effects.

Rising Investments and Funding

Governments, healthcare providers, and private players are investing heavily in cancer research, diagnostic innovations, and genomic testing infrastructure.

Integration with Digital Health

The adoption of AI, machine learning, and bioinformatics platforms is enhancing diagnostic accuracy and enabling real-time analysis of large genomic datasets.

Market Challenges

High Cost of Advanced Diagnostics – Sophisticated tests like NGS and liquid biopsies remain expensive, limiting adoption in low-income regions.

Regulatory Barriers – Stringent regulations and approval pathways for new diagnostic tools can delay commercialization.

Limited Skilled Workforce – Molecular oncology requires highly trained professionals, and shortages in some regions hinder growth.

Reimbursement Issues – Lack of universal reimbursement policies for advanced diagnostics reduces accessibility for patients.

Regional Insights

North America

North America holds a dominant share due to strong healthcare infrastructure, advanced cancer research, and widespread adoption of companion diagnostics and NGS-based assays. The U.S. leads the region, supported by government initiatives, clinical trials, and the presence of key diagnostic companies.

Europe

Europe represents a significant market, with countries like Germany, France, and the UK driving adoption. Investments in cancer screening programs, genomic medicine initiatives, and collaborations between diagnostic companies and hospitals are fostering growth.

Asia-Pacific (APAC)

APAC is expected to witness the fastest growth during the forecast period. Rising cancer prevalence in China, India, Japan, and South Korea, along with increasing investments in

healthcare modernization and precision medicine, are accelerating market demand.

Latin America

Latin America is gradually adopting molecular oncology diagnostics, with growth concentrated in Brazil, Mexico, and Argentina. Expanding healthcare facilities, cancer awareness programs, and collaborations with international diagnostic firms are supporting market penetration.

Middle East & Africa (MEA)

MEA is showing steady progress, driven by investments in oncology care in the UAE, Saudi Arabia, and South Africa. However, limited infrastructure and cost constraints remain barriers in certain parts of Africa.

Market Segmentation

By Technology

- Polymerase Chain Reaction (PCR)
- Next-Generation Sequencing (NGS)
- Fluorescence In Situ Hybridization (FISH)
- Immunohistochemistry (IHC)
- Liquid Biopsy
- Other Molecular Techniques

By Application

- Breast Cancer
- Lung Cancer
- Colorectal Cancer
- Prostate Cancer
- Blood Cancers (Leukemia, Lymphoma, etc.)
- Other Cancer Types

By End User

- Hospitals & Clinics
- Diagnostic Laboratories
- Research Institutes
- Academic Centers
- Competitive Landscape

Inquiry For Buying-<https://www.zionmarketresearch.com/inquiry/oncology-molecular-diagnostic-market>

The oncology molecular diagnostic market is highly competitive, with major global and regional players focusing on new assay launches, partnerships, and technological innovations.

Key Companies in the Market Include:

Roche Diagnostics

Illumina Inc.

Thermo Fisher Scientific Inc.

Qiagen N.V.

Agilent Technologies Inc.

Guardant Health

Foundation Medicine (Roche subsidiary)

Abbott Laboratories

Bio-Rad Laboratories Inc.

Exact Sciences Corporation

Recent Developments:

Expansion of liquid biopsy solutions for non-invasive cancer detection.

Growing partnerships between diagnostic firms and pharmaceutical companies to develop companion diagnostics.

Increasing use of AI-powered diagnostic platforms for analyzing complex genomic data.

Conclusion

The global oncology molecular diagnostic market, valued at USD 2.54 billion in 2024, is expected to surge to USD 7.91 billion by 2034, growing at a CAGR of 12.03%.

This growth is fueled by the rising global cancer burden, increasing demand for personalized medicine, and technological advancements in molecular testing. While North America and Europe currently lead the market, Asia-Pacific is emerging as the fastest-growing region due to healthcare modernization and rising cancer awareness.

The future of oncology diagnostics will revolve around liquid biopsies, next-generation sequencing, AI-driven analysis, and companion diagnostics, paving the way for highly precise, patient-centric cancer care.

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(Interventional, Observational, and Expanded Access), By Application (Cancer, Cardiovascular Diseases, Nervous System Diseases, Infectious Diseases, Musculoskeletal Disease, Gastroenterology Diseases, and Others), By End User (Pharmaceutical & Biopharmaceutical Companies, Medical Device Companies, and Others), and By Region - Global and Regional Industry Overview, Market Intelligence, Comprehensive Analysis, Historical Data, and Forecasts 2024 - 2032-<https://www.zionmarketresearch.com/report/clinical-trial-outsourcing-market>

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NAC (Acetylcysteine) Market By Form (Gummies, Tablets & Capsules, Powder, Sprays, and Others), By Type (Therapeutic and Diabetic), By Distribution Channel (Supermarkets & Hypermarkets, Online, Hospital Pharmacies, and Others), and By Region - Global and Regional Industry Overview, Market Intelligence, Comprehensive Analysis, Historical Data, and Forecasts 2024 - 2032-<https://www.zionmarketresearch.com/report/nac-acetylcysteine-market>

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<https://www.zionmarketresearch.com/report/acute-respiratory-infection-market>

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