

Cancer Immunotherapy Market Forecasts to 2032 - Global Analysis By Type (Immune Checkpoint Inhibitors, Monoclonal Antibodies, Cancer Vaccines, Adoptive Cell Transfer Therapy, Cytokines and Oncolytic Virus Therapy), Treatment Setting, Technology, Application, End User and By Geography

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Abstracts

According to Statistics MRC, the Global Cancer Immunotherapy Market is accounted for \$140.63 billion in 2025 and is expected to reach \$250.55 billion by 2032 growing at a CAGR of 8.6% during the forecast period. Cancer immunotherapy is a treatment strategy that leverages the body's immune system to fight cancer. Instead of directly attacking tumors, it enhances immune cells' ability to recognize and destroy cancer cells. Approaches include immune checkpoint inhibitors, cancer vaccines, monoclonal antibodies, and adoptive cell therapies. By targeting tumor-specific antigens and restoring immune function, immunotherapy can provide durable responses, reduce relapse, and improve survival. This personalized, targeted approach represents a transformative shift in oncology, offering new hope for patients with difficult to treat cancers.

Market Dynamics:

Driver:

Rising Global Cancer Burden

The increasing incidence of cancer worldwide is a key driver for the cancer immunotherapy market. Rising prevalence of various malignancies, coupled with aging

populations and lifestyle-related risk factors, is creating significant demand for advanced treatments. As conventional therapies often fall short in efficacy, patients and healthcare providers are turning to immunotherapy solutions that offer targeted, durable responses. This growing cancer burden is prompting pharmaceutical companies to invest heavily in research and development, accelerating market expansion globally.

Restraint:

High Treatment Costs

High treatment costs pose a significant restraint to the adoption of cancer immunotherapy. Advanced therapies, including immune checkpoint inhibitors and personalized cell-based treatments, require complex manufacturing, specialized administration, and ongoing monitoring. Many patients, especially in low- and middle-income regions, face financial barriers, limiting access and adoption. Additionally, insurance coverage and reimbursement challenges further restrict affordability. These economic hurdles slow market penetration, posing a critical challenge to sustainable growth in the global oncology landscape.

Opportunity:

Advancements in Immuno-Oncology

Ongoing advancements in immuno-oncology present significant opportunities for the market. Novel approaches, including next-generation immune checkpoint inhibitors, engineered T-cells, and combination therapies, are enhancing efficacy and expanding treatment indications. Research breakthroughs in tumor-specific antigens and personalized therapy strategies are improving patient outcomes. Additionally, increasing collaboration between biotech companies and pharmaceutical giants is accelerating drug discovery. These innovations are expected to create new revenue streams and expand the market.

Threat:

Regulatory & Approval Challenges

Regulatory and approval challenges are a major threat to the market. Complex clinical trial requirements, stringent safety and efficacy standards, and varying regulatory frameworks across regions can delay product approvals. These hurdles increase

development costs and timelines, affecting overall profitability and market entry. Post-approval monitoring and compliance obligations further complicate commercialization. Regulatory uncertainty, combined with evolving safety guidelines can hinder innovation, slow adoption, and pose risks to companies investing in novel immunotherapy therapies worldwide.

Covid-19 Impact:

The COVID-19 pandemic disrupted the market by delaying clinical trials, reducing hospital visits, and limiting elective treatments. Supply chain interruptions affected the production and distribution of critical biologics. However, the pandemic also accelerated telemedicine adoption and highlighted the need for immune-based therapies. Pharmaceutical companies adapted by implementing remote monitoring and safety protocols, mitigating long-term impact. Overall, while initial disruptions slowed growth, post-pandemic recovery and renewed focus on immunotherapies have positioned the market for strong expansion in the coming years.

The cytokines segment is expected to be the largest during the forecast period

The cytokines segment is expected to account for the largest market share during the forecast period as they crucial role in stimulating immune responses against tumors. Their ability to activate T-cells and natural killer cells makes them vital in targeted cancer therapy. Increasing research, favorable clinical outcomes, and approvals for cytokine-based therapies are driving market growth. Furthermore, combination therapies with other immunotherapeutics enhance efficacy, positioning cytokines as a cornerstone of innovative oncology treatment strategies globally.

The breast cancer segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the breast cancer segment is predicted to witness the highest growth rate, due to growing awareness, and early diagnosis are increasing demand for advanced therapies. Immunotherapy approaches, including checkpoint inhibitors and personalized vaccines, are showing promising clinical outcomes in breast cancer patients. Advances in biomarker identification and combination therapy strategies are further enhancing treatment efficacy. As a result, pharmaceutical investment and research activity are intensifying in this segment, driving rapid market growth and offering new hope to patients globally.

Region with largest share:

During the forecast period, the Asia Pacific region is expected to hold the largest market share, due to growing cancer prevalence, and increasing government initiatives to improve access to advanced therapies are key contributors. Rising awareness and adoption of innovative treatments, coupled with a large patient population, create significant market potential. Strategic partnerships between multinational pharmaceutical companies and local firms further strengthen market presence, making Asia Pacific a critical region for sustained growth in cancer immunotherapy.

Region with highest CAGR:

Over the forecast period, the North America region is anticipated to exhibit the highest CAGR, owing to high R&D investment, and strong regulatory support for innovative therapies. Widespread awareness, early diagnosis, and favorable reimbursement policies accelerate adoption. The presence of leading pharmaceutical companies and extensive clinical trial activity also fuels rapid growth. Cutting-edge research, including personalized and combination immunotherapies, is driving the development of novel treatments, positioning North America as a high-growth, innovation-driven hub for cancer immunotherapy.

Key players in the market

Some of the key players in Cancer Immunotherapy Market include Amgen Inc., AbbVie Inc., AstraZeneca Plc, Johnson & Johnson, Bristol-Myers Squibb Company, Sanofi S.A., Merck & Co., Inc., Seagen Inc., F. Hoffmann-La Roche Ltd, BeiGene Ltd., Pfizer Inc., Regeneron Pharmaceuticals, Inc., Novartis AG, Eli Lilly and Company and GlaxoSmithKline Plc (GSK).

Key Developments:

In January 2026, Cartography?Biosciences and Pfizer forged a multi year pact to unearth tumor selective antigens using Cartography?s pioneering ATLAS and SUMMIT platforms, aiming to fuel next generation precision oncology with shared discovery and development efforts.

In December 2025, Pfizer has struck an exclusive global collaboration and license deal with YaoPharma, a Shanghai Fosun subsidiary, to develop, manufacture, and commercialize YP05002, an oral small molecule GLP 1 receptor agonist now in Phase I

for chronic weight management.

Types Covered:

Immune Checkpoint Inhibitors

Monoclonal Antibodies

Cancer Vaccines

Adoptive Cell Transfer Therapy

Cytokines

Oncolytic Virus Therapy

Treatment Settings Covered:

Hospital

Specialty Clinics

Ambulatory Surgical Centers

Home Healthcare

Technologies Covered:

Gene Editing & Engineering

Nanotechnology in Immunotherapy

Biomarker & Companion Diagnostics

Other Technologies

Applications Covered:

Breast Cancer

Lung Cancer

Melanoma

Colorectal Cancer

Prostate Cancer

Hematologic Malignancies

Other Applications

End Users Covered:

Research & Academic Institutes

Diagnostic Laboratories

Other End Users

Regions Covered:

North America

 US

 Canada

 Mexico

Europe

 Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2024, 2025, 2026, 2028, and 2032
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

Contents

1 EXECUTIVE SUMMARY

2 PREFACE

- 2.1 Abstract
- 2.2 Stake Holders
- 2.3 Research Scope
- 2.4 Research Methodology
 - 2.4.1 Data Mining
 - 2.4.2 Data Analysis
 - 2.4.3 Data Validation
 - 2.4.4 Research Approach
- 2.5 Research Sources
 - 2.5.1 Primary Research Sources
 - 2.5.2 Secondary Research Sources
 - 2.5.3 Assumptions

3 MARKET TREND ANALYSIS

- 3.1 Introduction
- 3.2 Drivers
- 3.3 Restraints
- 3.4 Opportunities
- 3.5 Threats
- 3.6 Technology Analysis
- 3.7 Application Analysis
- 3.8 End User Analysis
- 3.9 Emerging Markets
- 3.10 Impact of Covid-19

4 PORTERS FIVE FORCE ANALYSIS

- 4.1 Bargaining power of suppliers
- 4.2 Bargaining power of buyers
- 4.3 Threat of substitutes
- 4.4 Threat of new entrants
- 4.5 Competitive rivalry

5 GLOBAL CANCER IMMUNOTHERAPY MARKET, BY TYPE

- 5.1 Introduction
- 5.2 Immune Checkpoint Inhibitors
 - 5.2.1 PD-1 Inhibitors
 - 5.2.2 PD-L1 Inhibitors
 - 5.2.3 CTLA-4 Inhibitors
- 5.3 Monoclonal Antibodies
- 5.4 Cancer Vaccines
- 5.5 Adoptive Cell Transfer Therapy
 - 5.5.1 CAR-T Cell Therapy
 - 5.5.2 TCR Therapy
 - 5.5.3 Tumor-Infiltrating Lymphocytes (TILs)
- 5.6 Cytokines
- 5.7 Oncolytic Virus Therapy

6 GLOBAL CANCER IMMUNOTHERAPY MARKET, BY TREATMENT SETTING

- 6.1 Introduction
- 6.2 Hospital
- 6.3 Specialty Clinics
- 6.4 Ambulatory Surgical Centers
- 6.5 Home Healthcare

7 GLOBAL CANCER IMMUNOTHERAPY MARKET, BY TECHNOLOGY

- 7.1 Introduction
- 7.2 Gene Editing & Engineering
- 7.3 Nanotechnology in Immunotherapy
- 7.4 Biomarker & Companion Diagnostics
- 7.5 Other Technologies

8 GLOBAL CANCER IMMUNOTHERAPY MARKET, BY APPLICATION

- 8.1 Introduction
- 8.2 Breast Cancer
- 8.3 Lung Cancer
- 8.4 Melanoma

- 8.5 Colorectal Cancer
- 8.6 Prostate Cancer
- 8.7 Hematologic Malignancies
- 8.8 Other Applications

9 GLOBAL CANCER IMMUNOTHERAPY MARKET, BY END USER

- 9.1 Introduction
- 9.2 Research & Academic Institutes
- 9.3 Diagnostic Laboratories
- 9.4 Other End Users

10 GLOBAL CANCER IMMUNOTHERAPY MARKET, BY GEOGRAPHY

- 10.1 Introduction
- 10.2 North America
 - 10.2.1 US
 - 10.2.2 Canada
 - 10.2.3 Mexico
- 10.3 Europe
 - 10.3.1 Germany
 - 10.3.2 UK
 - 10.3.3 Italy
 - 10.3.4 France
 - 10.3.5 Spain
 - 10.3.6 Rest of Europe
- 10.4 Asia Pacific
 - 10.4.1 Japan
 - 10.4.2 China
 - 10.4.3 India
 - 10.4.4 Australia
 - 10.4.5 New Zealand
 - 10.4.6 South Korea
 - 10.4.7 Rest of Asia Pacific
- 10.5 South America
 - 10.5.1 Argentina
 - 10.5.2 Brazil
 - 10.5.3 Chile
 - 10.5.4 Rest of South America

10.6 Middle East & Africa

10.6.1 Saudi Arabia

10.6.2 UAE

10.6.3 Qatar

10.6.4 South Africa

10.6.5 Rest of Middle East & Africa

11 KEY DEVELOPMENTS

11.1 Agreements, Partnerships, Collaborations and Joint Ventures

11.2 Acquisitions & Mergers

11.3 New Product Launch

11.4 Expansions

11.5 Other Key Strategies

12 COMPANY PROFILING

12.1 Amgen Inc.

12.2 AbbVie Inc.

12.3 AstraZeneca Plc

12.4 Johnson & Johnson

12.5 Bristol-Myers Squibb Company

12.6 Sanofi S.A.

12.7 Merck & Co., Inc.

12.8 Seagen Inc.

12.9 F. Hoffmann-La Roche Ltd

12.10 BeiGene Ltd.

12.11 Pfizer Inc.

12.12 Regeneron Pharmaceuticals, Inc.

12.13 Novartis AG

12.14 Eli Lilly and Company

12.15 GlaxoSmithKline Plc (GSK)

List Of Tables

LIST OF TABLES

- Table 1 Global Cancer Immunotherapy Market Outlook, By Region (2024-2032) (\$MN)
- Table 2 Global Cancer Immunotherapy Market Outlook, By Type (2024-2032) (\$MN)
- Table 3 Global Cancer Immunotherapy Market Outlook, By Immune Checkpoint Inhibitors (2024-2032) (\$MN)
- Table 4 Global Cancer Immunotherapy Market Outlook, By PD-1 Inhibitors (2024-2032) (\$MN)
- Table 5 Global Cancer Immunotherapy Market Outlook, By PD-L1 Inhibitors (2024-2032) (\$MN)
- Table 6 Global Cancer Immunotherapy Market Outlook, By CTLA-4 Inhibitors (2024-2032) (\$MN)
- Table 7 Global Cancer Immunotherapy Market Outlook, By Monoclonal Antibodies (2024-2032) (\$MN)
- Table 8 Global Cancer Immunotherapy Market Outlook, By Cancer Vaccines (2024-2032) (\$MN)
- Table 9 Global Cancer Immunotherapy Market Outlook, By Adoptive Cell Transfer Therapy (2024-2032) (\$MN)
- Table 10 Global Cancer Immunotherapy Market Outlook, By CAR-T Cell Therapy (2024-2032) (\$MN)
- Table 11 Global Cancer Immunotherapy Market Outlook, By TCR Therapy (2024-2032) (\$MN)
- Table 12 Global Cancer Immunotherapy Market Outlook, By Tumor-Infiltrating Lymphocytes (TILs) (2024-2032) (\$MN)
- Table 13 Global Cancer Immunotherapy Market Outlook, By Cytokines (2024-2032) (\$MN)
- Table 14 Global Cancer Immunotherapy Market Outlook, By Oncolytic Virus Therapy (2024-2032) (\$MN)
- Table 15 Global Cancer Immunotherapy Market Outlook, By Treatment Setting (2024-2032) (\$MN)
- Table 16 Global Cancer Immunotherapy Market Outlook, By Hospital (2024-2032) (\$MN)
- Table 17 Global Cancer Immunotherapy Market Outlook, By Specialty Clinics (2024-2032) (\$MN)
- Table 18 Global Cancer Immunotherapy Market Outlook, By Ambulatory Surgical Centers (2024-2032) (\$MN)
- Table 19 Global Cancer Immunotherapy Market Outlook, By Home Healthcare

(2024-2032) (\$MN)

Table 20 Global Cancer Immunotherapy Market Outlook, By Technology (2024-2032) (\$MN)

Table 21 Global Cancer Immunotherapy Market Outlook, By Gene Editing & Engineering (2024-2032) (\$MN)

Table 22 Global Cancer Immunotherapy Market Outlook, By Nanotechnology in Immunotherapy (2024-2032) (\$MN)

Table 23 Global Cancer Immunotherapy Market Outlook, By Biomarker & Companion Diagnostics (2024-2032) (\$MN)

Table 24 Global Cancer Immunotherapy Market Outlook, By Other Technologies (2024-2032) (\$MN)

Table 25 Global Cancer Immunotherapy Market Outlook, By Application (2024-2032) (\$MN)

Table 26 Global Cancer Immunotherapy Market Outlook, By Breast Cancer (2024-2032) (\$MN)

Table 27 Global Cancer Immunotherapy Market Outlook, By Lung Cancer (2024-2032) (\$MN)

Table 28 Global Cancer Immunotherapy Market Outlook, By Melanoma (2024-2032) (\$MN)

Table 29 Global Cancer Immunotherapy Market Outlook, By Colorectal Cancer (2024-2032) (\$MN)

Table 30 Global Cancer Immunotherapy Market Outlook, By Prostate Cancer (2024-2032) (\$MN)

Table 31 Global Cancer Immunotherapy Market Outlook, By Hematologic Malignancies (2024-2032) (\$MN)

Table 32 Global Cancer Immunotherapy Market Outlook, By Other Applications (2024-2032) (\$MN)

Table 33 Global Cancer Immunotherapy Market Outlook, By End User (2024-2032) (\$MN)

Table 34 Global Cancer Immunotherapy Market Outlook, By Research & Academic Institutes (2024-2032) (\$MN)

Table 35 Global Cancer Immunotherapy Market Outlook, By Diagnostic Laboratories (2024-2032) (\$MN)

Table 36 Global Cancer Immunotherapy Market Outlook, By Other End Users (2024-2032) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Middle East & Africa Regions are also represented in the same manner as above.

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