

North America Stem Cell Assay Market Report and Forecast 2025-2034

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Report description:

The North America stem cell assay market size was valued at USD 7.10 Billion in 2024, driven by the increased investment in stem cell research in the region. The market is expected to grow at a CAGR of 10.08% during the forecast period of 2025-2034, with the values likely to rise from USD 18.55 Billion by 2034.

Stem cell assay is a laboratory technique that helps to evaluate the behavior and function of stem cells. These assays find their applications in studying stem cell biology and assessing their potential therapeutic use. The rising cases of various chronic diseases in the region such as cancer are expected to directly impact the demand for novel treatment options, thereby driving the North America stem cell assay market growth. For instance, according to the American Cancer Society, it is estimated that 2,001,140 new cancer cases and 611,720 cancer deaths are projected to occur in the United States in 2024. Further, increased applications of stem cell assays in drug discovery and regenerative medicine are likely to augment the market size in the forecast period.

In North America, the rising impetus for stem cell research is resulting in advancements in stem cell assay methods and therapies. The development of innovative methods is expected to boost North America stem cell assay market demand as they can assist healthcare professionals in personalizing chemotherapy selection for cancer patients and in identifying the most effective therapy for each patient. In May 2023, a study published in Cell Reports Medicine revealed that a cancer stem cell assay called ChemoID can accurately predict clinical outcomes in response to chemotherapy, improving the survival of patients with recurrent glioblastoma. In the randomized trial, the group guided by the ChemoID assay showed a median survival of 12.5 months, compared to 9 months in the physician-choice group. These findings offer a promising approach to providing more affordable treatment for patients with recurrent glioblastoma in lower socioeconomic groups in the United States.

North America stem cell assay market share is likely to be impacted by increased merger and acquisition initiatives among the key market players. In April 2023, a United States-based company specializing in biospecimen, biomarker, and proteogenomics Discovery Life Sciences acquired ReachBio Research Labs, a life sciences company based in Seattle known for their cell-based assays, drug screening services, and predictive hematotoxicity. The acquisition will enable Discovery Life Science to expand its

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offerings in drug discovery and preclinical development by leveraging ReachBio's expertise in primary cell biology, particularly blood and bone marrow stem cell assays. The growing number of such strategic partnerships is anticipated to accelerate market growth in the coming years.

Other factors that fuel the market growth are the advancements in stem cell technologies resulting in enhanced efficiency and throughput of stem cell assays, increased healthcare expenditure, and rising funding for stem cell-based research. Further, the growing demand for personalized medicine and precision therapies will accelerate the market growth in the region.

North America Stem Cell Assay Market Segmentation

North America Stem Cell Assay Market Report and Forecast 2025-2034 offers a detailed analysis of the market based on the following segments:

Breakup by Product & Service

- Flow Cytometers
- Cell Imaging & Analysis Systems
- Microelectrode Arrays
- Automated Cell Counters
- Kits

Breakup by Cell Type

- Adult Stem Cells
- Human Embryonic Stem Cells
- Pluripotent

Breakup by Type

- Viability /Cytotoxicity Assays
- Isolation & Purification Assays
- Cell Identification Assays
- Proliferation Assays
- Differentiation Assays
- Function Assays
- Apoptosis Assays
- Others

Breakup by Treatment

- Allogeneic Stem Cell Therapy
- Autologic Stem Cell Therapy
- Syngeneic Stem Cell Therapy

Breakup by Application

- Regenerative Medicine &Therapy Development

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- Drug Discovery & Development
- Clinical Research
- Others

Breakup by End User

- Biopharmaceutical & Biotechnology Companies
- Academic & Research Institutes
- Others

Breakup by Region

- United States of America
- Canada

North America Stem Cell Assay Market: Competitor Landscape

The key features of the market report include patent analysis, funding and investment analysis, partnerships, and collaborations analysis by the leading key players. The major companies in the market are as follows:

- Thermo Fisher Scientific
- Perkinelmer
- Stemcell Technologies
- Merck
- Bio-Rad Laboratories
- Agilent Technologies
- Promega
- Bio-Techne
- Cell Biolabs

Kindly note that this only represents a partial list of companies, and the complete list has been provided in the report.

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