

North America Transient Protein Expression Market Forecast to 2031 - Regional Analysis - by Product Type (Instruments, Reagents, Expression Vectors, and Competent Cells), Application (Genomic Research, Gene Therapy, Bio production, Cancer Research, and Drug Development), and End User (Pharmaceutical and Biotechnology Companies, Academic and Research Institutes, and Clinical Research Organizations)

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Abstracts

The North America transient protein expression market was valued at US\$ 324.14 million in 2023 and is expected to reach US\$ 518.73 million by 2031; it is estimated to register a CAGR of 6.1% from 2023 to 2031.

Surging Popularity of Precision Medicine Fuels North America Transient Protein Expression Market

With advancements in medical technologies, the use of molecular biology techniques has increased significantly in the development of various therapeutic or treatment modalities. Genomic transcriptomic information facilitates the discovery of biomarkers that find applications in monitoring diseases and predicting their risks, serving as a key principle in different therapeutic modalities. The use of personalized or precision medicines has surged dramatically due to the availability of vast information on genetic variations existing among people. For instance, mRNA-mediated therapy is characterized by decreased immunogenicity, superior translation efficacy, enhanced stability, pharmaceutical safety, and transient protein expression, and only the modified

mRNA is utilized for therapeutic application instead of incorporating the entire host genome.

Pharmaceutical and biotechnology industries have developed various innovative techniques to treat cancer and neurodegenerative diseases. The transient gene expression technique has aided in significant progress in research related to neurotrauma and neurodegenerative diseases, which has resulted in the introduction of precision medicines for these conditions. Technological advancements in epigenetics, genetics, and proteomics are also supporting the development of therapeutics for the treatment of various genetic and rare genetic diseases caused by single- and multiple-cell disorders.

The Precision Medicine Initiative launched in the US in 2015 enhanced the use of genetic engineering, genomics, and proteomics, thereby increasing the use of transient protein expression techniques. Thus, the continuous research and development activities and growing government initiatives to support precision medicine boost the adoption of transient protein expression techniques.

North America Transient Protein Expression Market Overview

The US is the largest market in the world for transient protein expression and is estimated to dominate during the forecast period. The market growth in the country is expected due to extensive research and development activities in the biopharmaceutical segment, a growing number of startups involved in protein expression, and the rising adoption of recombinant protein for therapeutic applications. In addition, the presence of various market leaders operating in the segments is contributing to the market expansion.

The US biotechnology industry is the largest in the world. Government support and investments from private–public sectors have significantly promoted the biotechnology industry in the country. Moreover, the biopharmaceutical segment is much developed and continuously seeking opportunities to enhance its portfolio. Companies such as Illumina, Inc; Regeneron Pharmaceuticals, Inc; Agilent Technologies, Inc; Vertex Pharmaceuticals, and Biogen Inc. have been constantly working in medicine, genetic research, and bioengineering fields; they have introduced several innovative healthcare products into the market.

Further, the COVID-19 pandemic served several growth opportunities for the transient protein expression market. Biotechnology companies strengthened their research

studies to understand the genealogy, virality, and potentiality of the virus for developing vaccines and other therapeutic products with the help of transient protein expression; thus, the market for transient protein expression is projected to continue to grow during the forecast period due to the aforementioned factors.

North America Transient Protein Expression Market Revenue and Forecast to 2031 (US\$ Million)

North America Transient Protein Expression Market Segmentation

The North America transient protein expression market is categorized into product type, application, end user, and country.

Based on product type , the North America transient protein expression market is segmented into instruments, reagents, expression vectors, and competent cells. The instruments segment held the largest market share in 2023.

In terms of application , the North America transient protein expression market is segmented into genomic research, gene therapy, bio production, cancer research, and drug development. The genomic research segment held the largest market share in 2023.

Based on end user , the North America transient protein expression market is segmented into pharmaceutical and biotechnology companies, academic and research institutes, and clinical research organizations. The pharmaceutical and biotechnology companies segment held the largest market share in 2023.

By country, the North America transient protein expression market is segmented into the US, Canada, and Mexico. The US dominated the North America transient protein expression market share in 2023.

Thermo Fisher Scientific Inc, Merck KGaA, QIAGEN NV, GenScript Biotech Corporation, Promega Corp, Takara Bio Inc, New England Biolabs, Agilent Technologies Inc, Mirus Bio LLC, Bio-Rad Laboratories Inc, Lonza Group AG, and MaxCyte Inc are some of the leading companies operating in the North America transient protein expression market.

Reason to buy

Save and reduce time carrying out entry-level research by identifying the growth, size, leading players, and segments in the North America transient protein expression market.

Highlights key business priorities in order to assist companies to realign their business strategies.

The key findings and recommendations highlight crucial progressive industry trends in the North America transient protein expression market, thereby allowing players across the value chain to develop effective long-term strategies.

Develop/modify business expansion plans by using substantial growth offering developed and emerging markets.

Scrutinize in-depth North America market trends and outlook coupled with the factors driving the North America transient protein expression market, as well as those hindering it.

Enhance the decision-making process by understanding the strategies that underpin commercial interest with respect to client products, segmentation, pricing, and distribution.

The List of Companies - North America Transient Protein Expression Market

Thermo Fisher Scientific Inc

Merck KGaA

QIAGEN NV

GenScript Biotech Corporation

Promega Corp

Takara Bio Inc

New England Biolabs

Agilent Technologies Inc

Mirus Bio LLC

Bio-Rad Laboratories Inc

Lonza Group AG

MaxCyte Inc

Contents

1. INTRODUCTION

- 1.1 The Insight Partners Research Report Guidance
- 1.2 Market Segmentation

2. EXECUTIVE SUMMARY

- 2.1 Key Insights

3. RESEARCH METHODOLOGY

- 3.1 Secondary Research
- 3.2 Primary Research
 - 3.2.1 Hypothesis formulation:
 - 3.2.2 Macro-economic factor analysis:
 - 3.2.3 Developing base number:
 - 3.2.4 Data Triangulation:
 - 3.2.5 Country level data:

4. NORTH AMERICA TRANSIENT PROTEIN EXPRESSION MARKET – KEY MARKET DYNAMICS

- 4.1 Market Drivers
 - 4.1.1 Increasing Applications of Protein Expression Systems
 - 4.1.2 Surging Popularity of Precision Medicine
- 4.2 Market Restraints
 - 4.2.1 High Cost of Products
- 4.3 Market Opportunities
 - 4.3.1 Plant-Based Expression Systems for Therapeutic Protein Production
- 4.4 Future Trends
 - 4.4.1 Integration of Artificial Intelligence (AI) and Automation Technologies
- 4.5 Impact of Drivers and Restraints:

5. TRANSIENT PROTEIN EXPRESSION MARKET – NORTH AMERICA ANALYSIS

- 5.1 North America Transient Protein Expression Market Revenue (US\$ Million), 2021–2031

5.2 North America Transient Protein Expression Market Forecast Analysis

6. NORTH AMERICA TRANSIENT PROTEIN EXPRESSION MARKET ANALYSIS – BY PRODUCT TYPE

6.1 Instruments

6.1.1 Overview

6.1.2 Instruments: North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million)

6.2 Reagents

6.2.1 Overview

6.2.2 Reagents: North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million)

6.3 Expression Vectors

6.3.1 Overview

6.3.2 Expression Vectors: North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million)

6.4 Competent Cells

6.4.1 Overview

6.4.2 Competent Cells: North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million)

7. NORTH AMERICA TRANSIENT PROTEIN EXPRESSION MARKET ANALYSIS – BY APPLICATION

7.1 Genomic Research

7.1.1 Overview

7.1.2 Genomic Research: North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million)

7.2 Gene Therapy

7.2.1 Overview

7.2.2 Gene Therapy: North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million)

7.3 Bio production

7.3.1 Overview

7.3.2 Bio production: North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million)

7.4 Cancer Research

7.4.1 Overview

7.4.2 Cancer Research: North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million)

7.5 Drug Development

7.5.1 Overview

7.5.2 Drug Development: North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million)

8. NORTH AMERICA TRANSIENT PROTEIN EXPRESSION MARKET ANALYSIS – BY END USER

8.1 Pharmaceutical and Biotechnology Companies

8.1.1 Overview

8.1.2 Pharmaceutical and Biotechnology Companies: North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million)

8.2 Academic and Research Institutes

8.2.1 Overview

8.2.2 Academic and Research Institutes: North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million)

8.3 Clinical Research Organizations

8.3.1 Overview

8.3.2 Clinical Research Organizations: North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million)

9. NORTH AMERICA TRANSIENT PROTEIN EXPRESSION MARKET – COUNTRY ANALYSIS

9.1 North America

9.1.1 North America Transient Protein Expression Market Overview

9.1.2 North America Transient Protein Expression Market Breakdown, by Key Countries, 2023 and 2031 (%)

9.1.2.1 North America Transient Protein Expression Market – Revenue and Forecast Analysis – by Country

9.1.2.2 United States: North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million)

9.1.2.2.1 United States: North America Transient Protein Expression Market Breakdown, by Product Type

9.1.2.2.2 United States: North America Transient Protein Expression Market Breakdown, by Application

9.1.2.2.3 United States: North America Transient Protein Expression Market

Breakdown, by End User

9.1.2.3 Canada: North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million)

9.1.2.3.1 Canada: North America Transient Protein Expression Market Breakdown, by Product Type

9.1.2.3.2 Canada: North America Transient Protein Expression Market Breakdown, by Application

9.1.2.3.3 Canada: North America Transient Protein Expression Market Breakdown, by End User

9.1.2.4 Mexico: North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million)

9.1.2.4.1 Mexico: North America Transient Protein Expression Market Breakdown, by Product Type

9.1.2.4.2 Mexico: North America Transient Protein Expression Market Breakdown, by Application

9.1.2.4.3 Mexico: North America Transient Protein Expression Market Breakdown, by End User

10. COMPETITIVE LANDSCAPE

10.1 Company Positioning & Concentration

11. INDUSTRY LANDSCAPE

11.1 Overview

11.2 Growth Strategies in North America Transient Protein Expression Market

11.3 Organic Growth Strategies

11.3.1 Overview

11.4 Inorganic Growth Strategies

11.4.1 Overview

12. COMPANY PROFILES

12.1 Thermo Fisher Scientific Inc

12.1.1 Key Facts

12.1.2 Business Description

12.1.3 Products and Services

12.1.4 Financial Overview

12.1.5 SWOT Analysis

- 12.1.6 Key Developments
- 12.2 Merck KGaA
 - 12.2.1 Key Facts
 - 12.2.2 Business Description
 - 12.2.3 Products and Services
 - 12.2.4 Financial Overview
 - 12.2.5 SWOT Analysis
 - 12.2.6 Key Developments
- 12.3 QIAGEN NV
 - 12.3.1 Key Facts
 - 12.3.2 Business Description
 - 12.3.3 Products and Services
 - 12.3.4 Financial Overview
 - 12.3.5 SWOT Analysis
 - 12.3.6 Key Developments
- 12.4 GenScript Biotech Corporation
 - 12.4.1 Key Facts
 - 12.4.2 Business Description
 - 12.4.3 Products and Services
 - 12.4.4 Financial Overview
 - 12.4.5 SWOT Analysis
 - 12.4.6 Key Developments
- 12.5 Promega Corp
 - 12.5.1 Key Facts
 - 12.5.2 Business Description
 - 12.5.3 Products and Services
 - 12.5.4 Financial Overview
 - 12.5.5 SWOT Analysis
 - 12.5.6 Key Developments
- 12.6 Takara Bio Inc
 - 12.6.1 Key Facts
 - 12.6.2 Business Description
 - 12.6.3 Products and Services
 - 12.6.4 Financial Overview
 - 12.6.5 SWOT Analysis
 - 12.6.6 Key Developments
- 12.7 New England Biolabs
 - 12.7.1 Key Facts
 - 12.7.2 Business Description

- 12.7.3 Products and Services
- 12.7.4 Financial Overview
- 12.7.5 SWOT Analysis
- 12.7.6 Key Developments
- 12.8 Agilent Technologies Inc
 - 12.8.1 Key Facts
 - 12.8.2 Business Description
 - 12.8.3 Products and Services
 - 12.8.4 Financial Overview
 - 12.8.5 SWOT Analysis
 - 12.8.6 Key Developments
- 12.9 Mirus Bio LLC
 - 12.9.1 Key Facts
 - 12.9.2 Business Description
 - 12.9.3 Products and Services
 - 12.9.4 Financial Overview
 - 12.9.5 SWOT Analysis
 - 12.9.6 Key Developments
- 12.10 Bio-Rad Laboratories Inc
 - 12.10.1 Key Facts
 - 12.10.2 Business Description
 - 12.10.3 Products and Services
 - 12.10.4 Financial Overview
 - 12.10.5 SWOT Analysis
 - 12.10.6 Key Developments
- 12.11 Lonza Group AG
 - 12.11.1 Key Facts
 - 12.11.2 Business Description
 - 12.11.3 Products and Services
 - 12.11.4 Financial Overview
 - 12.11.5 SWOT Analysis
 - 12.11.6 Key Developments
- 12.12 MaxCyte Inc
 - 12.12.1 Key Facts
 - 12.12.2 Business Description
 - 12.12.3 Products and Services
 - 12.12.4 Financial Overview
 - 12.12.5 SWOT Analysis
 - 12.12.6 Key Developments

13. APPENDIX

13.1 About The Insight Partners

13.2 Glossary of Terms

List Of Tables

LIST OF TABLES

Table 1. North America Transient Protein Expression Market Segmentation

Table 2. North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million)

Table 3. North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million) – by Product Type

Table 4. North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million) – by Application

Table 5. North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million) – by End User

Table 6. North America Transient Protein Expression Market – Revenue and Forecast to 2031(US\$ Million) – by Country

Table 7. United States: North America Transient Protein Expression Market – Revenue and Forecast to 2031(US\$ Million) – by Product Type

Table 8. United States: North America Transient Protein Expression Market – Revenue and Forecast to 2031(US\$ Million) – by Application

Table 9. United States: North America Transient Protein Expression Market – Revenue and Forecast to 2031(US\$ Million) – by End User

Table 10. Canada: North America Transient Protein Expression Market – Revenue and Forecast to 2031(US\$ Million) – by Product Type

Table 11. Canada: North America Transient Protein Expression Market – Revenue and Forecast to 2031(US\$ Million) – by Application

Table 12. Canada: North America Transient Protein Expression Market – Revenue and Forecast to 2031(US\$ Million) – by End User

Table 13. Mexico: North America Transient Protein Expression Market – Revenue and Forecast to 2031(US\$ Million) – by Product Type

Table 14. Mexico: North America Transient Protein Expression Market – Revenue and Forecast to 2031(US\$ Million) – by Application

Table 15. Mexico: North America Transient Protein Expression Market – Revenue and Forecast to 2031(US\$ Million) – by End User

Table 16. Recent Organic Growth Strategies in North America Transient Protein Expression Market

Table 17. Recent Inorganic Growth Strategies in the North America Transient Protein Expression Market

Table 18. Glossary of Terms, Transient Protein Expression Market

List Of Figures

LIST OF FIGURES

Figure 1. North America Transient Protein Expression Market Segmentation, by Country

Figure 2. North America Transient Protein Expression Market – Key Market Dynamics

Figure 3. Impact Analysis of Drivers and Restraints

Figure 4. North America Transient Protein Expression Market Revenue (US\$ Million), 2021–2031

Figure 5. North America Transient Protein Expression Market Share (%) – by Product Type (2023 and 2031)

Figure 6. Instruments: North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million)

Figure 7. Reagents: North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million)

Figure 8. Expression Vectors: North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million)

Figure 9. Competent Cells: North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million)

Figure 10. North America Transient Protein Expression Market Share (%) – by Application (2023 and 2031)

Figure 11. Genomic Research: North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million)

Figure 12. Gene Therapy: North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million)

Figure 13. Bio production: North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million)

Figure 14. Cancer Research: North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million)

Figure 15. Drug Development: North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million)

Figure 16. North America Transient Protein Expression Market Share (%) – by End User (2023 and 2031)

Figure 17. Pharmaceutical and Biotechnology Companies: North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million)

Figure 18. Academic and Research Institutes: North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million)

Figure 19. Clinical Research Organizations: North America Transient Protein Expression Market – Revenue and Forecast to 2031 (US\$ Million)

Figure 20. North America Transient Protein Expression Market Breakdown, by Key Countries – Revenue (2023) (US\$ Million)

Figure 21. North America Transient Protein Expression Market Breakdown, by Key Countries, 2023 and 2031 (%)

Figure 22. United States: North America Transient Protein Expression Market – Revenue and Forecast to 2031(US\$ Million)

Figure 23. Canada: North America Transient Protein Expression Market – Revenue and Forecast to 2031(US\$ Million)

Figure 24. Mexico: North America Transient Protein Expression Market – Revenue and Forecast to 2031(US\$ Million)

Figure 25. Company Positioning & Concentration

Figure 26. Growth Strategies in North America Transient Protein Expression Market

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- by Product Type (Instruments, Reagents, Expression Vectors, and Competent Cells),
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