

# Biobanking Cold Storage Equipment Market - A Global and Regional Analysis: Focus on Offering, End User, and Region - Analysis and Forecast, 2024-2033

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## Abstracts

The global biobanking cold storage equipment market, valued at \$1,410.6 million in 2023, is on a robust growth trajectory and is anticipated to reach \$2,889.9 million by 2033. This market is expected to expand at a compound annual growth rate (CAGR) of 7.55% between 2024 and 2033. The global biobanking cold storage equipment market is experiencing robust growth due to the increasing demand for the long-term preservation of biological samples, such as human tissues, blood, and DNA. These samples are pivotal in research areas such as genomics, pharmaceuticals, and biotechnology, fueling the need for advanced cold storage solutions. The market is segmented by offerings, including equipment, accessories and consumables, software, and services. Among these, the equipment segment dominates, with freezers, cryogenic storage systems, and refrigerators being essential components in biobanks. Technological advancements in temperature control systems, along with the growing trend towards personalized medicine, have heightened the need for high-quality and reliable cold storage solutions. Furthermore, as regulatory requirements for biobanks become more stringent, the demand for robust and secure cold storage equipment is expected to rise. The increasing investment in research and development of precision medicine further contributes to the market's expansion.

Regional Segmentation:

North America

U.S.

Canada

## Europe

U.K.

Germany

France

Italy

Spain

Rest-of-Europe

## Asia-Pacific

China

Japan

Australia

India

Singapore

Rest-of-Asia-Pacific

## Latin America

Brazil

Mexico

Rest of Latin America

## Middle East and Africa

## Europe

Europe remains the leading region in the global biobanking cold storage equipment market. The region is home to the highest number of biobanks, driven by a robust healthcare infrastructure, a strong focus on research and development, and government support for life sciences initiatives. Countries like the U.K, Germany, France, and the Netherlands are key contributors, with substantial investments in precision medicine, genomics, and biomedical research. Additionally, Europe's strict regulatory environment for biobanks ensures the demand for high-quality cold storage solutions, further boosting market growth. The presence of major players and research institutions also strengthens Europe's dominant position in the market.

## North America

North America, particularly the U.S., holds a significant share of the global biobanking cold storage equipment market. The region benefits from advanced technological capabilities, a strong pharmaceutical industry, and substantial investments in life sciences research. The growing trend toward personalized medicine, alongside major healthcare organizations and academic research institutions, drives demand for reliable cold storage equipment. The region also benefits from favorable government policies that encourage the establishment of biobanks, thus contributing to market growth.

## Asia-Pacific

The Asia-Pacific region is the fastest-growing market for biobanking cold storage equipment. Rapid advancements in biotechnology and pharmaceuticals, coupled with increasing research investments, drive the growth of biobanks in countries like China, Japan, India, and South Korea. These countries are expanding their biobanking infrastructure to support the growing demand for genomics research, diagnostics, and precision medicine. The rise in healthcare expenditures and the increasing number of clinical trials in the region also stimulate demand for advanced cold storage solutions. As the region continues to invest in biobanking capabilities, the demand for efficient and scalable cold storage equipment will continue to rise.

## Middle East & Africa

The Middle East and Africa (MEA) region is a developing market for biobanking cold storage equipment. While currently holding a smaller market share, countries like the UAE and Saudi Arabia are advancing their biobanking infrastructure, supported by

growing investments in biotechnology and genomics. Increasing research collaborations and awareness about the importance of biobanks in medical research are driving demand for cold storage solutions in the region.

## Latin America

Latin America is experiencing steady growth in the biobanking cold storage equipment market, particularly in countries like Brazil, Mexico, and Argentina. Government initiatives and a growing biotechnology sector are contributing to market expansion. However, economic challenges and lower research investments in some countries limit growth, though demand for cold storage solutions is expected to rise as the region develops its healthcare and research infrastructure.

## Recent Developments in the Global Biobanking Cold Storage Equipment Market

In August 2024: Thermo Fisher Scientific has opened a new clinical and commercial ultra-cold storage facility in Bleiswijk, Netherlands, expanding its European clinical trial network to address the increasing demand for ultra-cold storage solutions critical for advanced therapies like cell and gene therapies.

In August 2024: Thermo Fisher Scientific has introduced the TSX Universal Series ULT Freezers, offering tighter temperature control, faster recovery times, and enhanced energy efficiency.

In February 2024: Azenta, Inc. has launched the BioArc Ultra, an eco-friendly automated ultracold sample management solution, designed to improve performance in large-scale biorepositories.

In February 2024: PHC Corporation of North America has launched the new model of PHCbi brand VIP ECO SMART ultra-low temperature freezer series, for use in facilities including pharmaceutical companies, medical institutions, and universities.

## How can this report add value to an organization?

**Product/Innovation Strategy:** This report provides valuable insights into the latest advancements in biobanking cold storage equipment, including innovations in temperature control, automation, and cloud-based monitoring systems. Organizations

can use these insights to identify opportunities for product differentiation, develop next-generation cold storage solutions, and integrate cutting-edge technologies to meet the growing demands of biobanks and personalized medicine.

**Growth/Marketing Strategy:** The report offers detailed regional and market segment insights, enabling organizations to target high-growth markets such as Asia-Pacific, where demand for biobanking infrastructure is rapidly expanding. By understanding market trends and regional dynamics, companies can align their marketing strategies to effectively position their products in fast-growing regions like North America and Europe, capitalizing on the increasing need for advanced cold storage solutions.

**Competitive Strategy:** By analyzing market share, key players, and industry trends, this report allows organizations to evaluate competitive dynamics, identify market leaders, and develop strategies to gain a competitive edge. This can include forming strategic partnerships, entering new markets, and developing innovative product offerings to meet the evolving needs of biobanks and research institutions.

## **Methodology**

### **Key Considerations and Assumptions in Market Engineering and Validation**

The base year considered for the calculation of the market size is 2023. A historical year analysis has been done for the period FY2021-FY2022. The market size has been estimated for FY2023 and projected for the period FY2024-FY2033.

The scope of this report has been carefully derived based on interactions with experts in different companies worldwide.

The global biobanking cold storage equipment market contribution of biobanking cold storage equipment anticipated to be launched in the future has been calculated based on the historical analysis of the drugs.

Revenues of the companies have been referenced from their annual reports for FY2023 and FY2023. For private companies, revenues have been estimated based on factors such as inputs obtained from primary research, funding history, market collaborations, and operational history.

The global biobanking cold storage equipment market has been mapped based

on the available biobanking cold storage equipment. This report has considered and profiled all the key companies with significant offerings in this field.

The report excludes products and services not directly related to cold storage and preservation, such as equipment, accessories, consumables, software, and services used for sample analysis (e.g., biochemical or molecular testing tools).

It also excludes products related to sample processing (e.g., preparation and centrifugation equipment) and sample transport (e.g., portable coolers and transport kits) specifically designed for moving biological samples.

### Primary Research:

The primary sources involve industry experts in biobanking cold storage equipment, including the market players offering biobanking cold storage equipment. Resources such as CEOs, vice presidents, marketing directors, and salespersons have been interviewed to obtain and verify both qualitative and quantitative aspects of this research study.

The key data points taken from the primary sources include:

- Validation and triangulation of all the numbers and graphs

- Validation of the report's segmentation and key qualitative findings

- Understanding the competitive landscape and business model

- Current and proposed production values of a product by market players

- Percentage split of individual markets for regional analysis

### Secondary Research

### Open Sources

Certified publications, articles from recognized authors, white papers, directories, and major databases, among others

Annual reports, SEC filings, and investor presentations of the leading market players

Company websites and detailed study of their product portfolio

Gold standard magazines, journals, white papers, press releases, and news articles

Paid databases

The key data points taken from the secondary sources include:

Segmentations and percentage shares

Data for market value

Key industry trends of the top players of the market

Qualitative insights into various aspects of the market, key trends, and emerging areas of innovation

Quantitative data for mathematical and statistical calculations

## **Key Market Players and Competition Synopsis**

The competitive landscape of the global biobanking cold storage equipment market is dominated by several key players, each offering cutting-edge technologies to meet the growing demand for reliable cold storage solutions. Leading companies such as Thermo Fisher Scientific, Inc., Azena, Inc., and PHC Holding Corporation are at the forefront, providing a wide range of equipment including freezers, cryogenic storage systems, and refrigerators that cater to diverse biobanking needs. Other prominent players like Haier Biomedical, Eppendorf SE, and Trane Technologies plc offer specialized cold storage systems designed to meet the rigorous demands of biobanks. The market is highly competitive, with these players continually advancing their product portfolios by integrating digital technologies like cloud-based monitoring and automation. Companies such as MGI Tech Co., Ltd, Arctiko, Labcold, Esco Micro Pte. Ltd, Avantor, Inc., BioLife

Solutions, Inc., Hamilton Company, and IC Biomedical, LLC also contribute to the market through innovation and strategic partnerships, positioning themselves as strong contenders in this growing industry.

Some prominent names established in the global biobanking cold storage equipment market are:

Thermo Fisher Scientific, Inc.

Azenta, Inc.

PHC Holding Corporation

Haier Biomedical

Eppendorf SE

Trane Technologies plc

MGI Tech Co., Ltd

Labcold

Avantor, Inc.

BioLife Solutions, Inc.

Hamilton Company

IC Biomedical, LLC

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