

Biochips Market Poised for Significant Growth, Expected to Reach USD 29.40 Billion by 2032 with a 13.29% CAGR

The biochips market is revolutionizing healthcare with advancements in diagnostics, personalized medicine, and drug discovery.

AUSTIN, TX, UNITED STATES, October 24, 2024 /EINPresswire.com/ -- The [Biochips Market](#) size was valued at USD 10.09 billion in 2023 and is expected to reach USD 29.40 billion by 2032, growing at a CAGR of 13.29% over the forecast period of 2024-2032.



The biochips market is seeing a notable increase, driven by the growing need for personalized medicine, innovative molecular diagnostics, and point-of-care testing. These small gadgets can examine extensive biological information, allowing for quick identification of diseases on a molecular scale. Biochips play a vital role in personalized medicine by enabling customized treatments that are based on an individual's genetic characteristics. Their function in point-of-care diagnostics permits rapid, precise testing, decreasing the time needed for diagnosis and treatment. Biochips in drug development speed up the discovery process and cut down costs through high-throughput screening. Moreover, biochips are also being utilized in disease diagnosis scenarios, such as allergy testing, and the detection of biomarkers in conditions like cancer. In 2022, Nutcracker Therapeutics secured USD 167 million to improve its RNA-based therapeutics platform, highlighting the increasing importance of biochip technology. Due to ongoing technological advancements and new uses being discovered, the biochips industry is predicted to experience significant growth in the foreseeable future.

Get a Free Sample Report of Biochips Market @ <https://www.snsinsider.com/sample-request/4577>

Major Key Players Included are:

- Agilent Technologies - Agilent 2200 TapeStation
- PerkinElmer - PerkinElmer ScanArray Express
- Illumina - Illumina iScan System
- Bio-Rad Laboratories - Bio-Rad CFX96 Real-Time PCR Detection System
- Standard BioTools - Standard BioTools GeneXpress
- GE HealthCare - GE HealthCare Microarray Scanner
- Thermo Fisher Scientific - Thermo Fisher Scientific NanoDrop Spectrophotometer
- LI-COR - LI-COR Odyssey Infrared Imaging System
- QIAGEN - QIAGEN QIAcube HT
- Randox Laboratories - Randox Laboratories Randox Acumen
- Roche Diagnostics - Roche Diagnostics cobas z 480
- Life Technologies - Life Technologies Applied Biosystems 3730 DNA Analyzer
- Beckman Coulter - Beckman Coulter Biomek FX Laboratory Automation System
- Molecular Devices - Molecular Devices SpectraMax M5e Microplate Reader
- Merck KGaA - Merck KGaA Millipore Sigma Biochips
- Oxford Nanopore Technologies - Oxford Nanopore Technologies MinION
- Fluidigm - Fluidigm C1 Single-Cell Analysis System
- Affymetrix - Affymetrix GeneChip Array
- NanoString Technologies - NanoString Technologies nCounter Analysis System
- Luminex Corporation - Luminex Corporation Luminex MAGPIX System

Market Analysis

The worldwide biochips market is set for strong expansion due to various factors, such as the rising occurrence of chronic illnesses like cancer, immune system disorders, and viral infections. The increasing elderly population and the rising need for individualized medicine are also key factors in driving market expansion. Biochips are essential for detecting diseases early, allowing healthcare providers to provide personalized treatments based on a person's specific genetic makeup.

The fast progression of nanotechnology is a major advantage in the biochips market, allowing for the creation of smaller, more accurate biochips. This is causing a rise in the use of biochip-based testing in clinical and research environments. Furthermore, the increasing combination of biochips with wearable gadgets offers thrilling possibilities for ongoing health tracking, which in turn enhances the market's potential.

Segment Analysis

By Product Type

- DNA chip
- Protein chip
- Lab-on-a-chip

In 2023, the DNA chips segment was the top product type, holding 38% of the market share. DNA microarrays, commonly referred to as DNA chips, are extensively utilized in genetic studies and medical testing because of their capacity to examine numerous DNA sequences at once. These chips have transformed genome-wide association studies and are frequently utilized in cancer research for profiling tumors, predicting therapies, and detecting biomarkers. The increasing use of DNA chips in personalized healthcare has greatly helped them become the leading choice in the market.

By Application

- Genomics
- Drug Development
- Agriculture
- Others

Regarding usage, drug development comprised the largest portion of 41% in 2023. Biochips are commonly utilized in drug discovery and combinatorial chemistry for simultaneously testing a high volume of compounds, speeding up the process of identifying potential drug candidates. In the pharmaceutical industry, biochips are extremely useful in cutting down the time and expenses of research and development. The increasing attention to precision medicine, specifically in the field of oncology, is boosting the need for biochips in the development of drugs.

By End User

- Biotechnology & Pharmaceutical companies
- Hospitals and Diagnostics centres
- Academic & Research Institutes
- Others

Inquire for More Details @ <https://www.snsinsider.com/enquiry/4577>

Key Regional Development

In 2023, North America was the leading region in the global biochips market, contributing more than 49% of the overall revenue. The area's strong presence in biotechnology and life sciences research, combined with robust government backing for R&D, has led to its market control. For instance, in the United States, the federal government provides R&D tax credits to promote innovation in biochip technology and other advanced industries. The biochips market is supported in its growth by the existence of top biotechnology firms and academic institutions in North America.

Countries such as China and India are projected to experience significant growth in the pharmaceutical and biotechnology industries, leading to rapid expansion in the Asia-Pacific region. China's increasing investment in precision medicine and next-generation sequencing

research is driving progress in drug discovery and personalized medicine. Furthermore, the market in this region is growing due to the increased awareness among patients and the uptick in the utilization of advanced diagnostic technologies.

Recent Developments

- In April 2024, Boston Micro Fabrication introduced BMF Biotechnology Inc, with a focus on enhancing the utilization of 3D biochips in pharmaceutical and cosmetic studies. These advanced biochips, created using microfluidic technology, enable the recreation of biologically important tissues on a large scale. This advancement is anticipated to improve forecasts of drug reactions and speed up research in the pharmaceutical and cosmetic sectors.
- In April 2020, Bio-Rad Laboratories, Inc. purchased Celsee, Inc., a company that focuses on single-cell analysis technologies. This purchase enhances Bio-Rad's presence in the biochips industry, enabling the company to broaden its range of products in life sciences and clinical diagnostics. The combination of Celsee's single-cell analysis expertise with Bio-Rad's current capabilities is anticipated to enhance innovation in biochip-based research and diagnostics.

Buy Single User PDF of Biochips Market Report @ <https://www.snsinsider.com/checkout/4577>

Table of Contents – Major Key Points

1. Introduction
 - 1.1 Market Definition
 - 1.2 Scope (Inclusion and Exclusions)
 - 1.3 Research Assumptions
2. Executive Summary
 - 2.1 Market Overview
 - 2.2 Regional Synopsis
 - 2.3 Competitive Summary
3. Research Methodology
 - 3.1 Top-Down Approach
 - 3.2 Bottom-up Approach
 - 3.3. Data Validation
 - 3.4 Primary Interviews
4. Market Dynamics Impact Analysis
 - 4.1 Market Driving Factors Analysis
 - 4.2 PESTLE Analysis
 - 4.3 Porter's Five Forces Model
5. Statistical Insights and Trends Reporting

- 5.1 Incidence and Prevalence (2023)
- 5.2 Prescription Trends, (2023), by Region
- 5.3 Device Volume: Device usage volume
- 5.4 Healthcare Spending: Expenditure data by government, insurers, and out-of-pocket by patients

- 6. Competitive Landscape
 - 6.1 List of Major Companies, By Region
 - 6.2 Market Share Analysis, By Region
 - 6.3 Type Benchmarking
 - 6.4 Strategic Initiatives
 - 6.5 Technological Advancements
 - 6.6 Market Positioning and Branding

- 7. Biochips Market Segmentation, by Type

- 8. Biochips Market Segmentation, by Application

- 9. Biochips Market Segmentation, by End-Use

- 10. Regional Analysis

- 11. Company Profiles

- 12. Use Cases and Best Practices

- 13. Conclusion

About Us:

SNS Insider is a global leader in market research and consulting, shaping the future of the industry. Our mission is to empower clients with the insights they need to thrive in dynamic environments. Utilizing advanced methodologies such as surveys, video interviews, and focus groups, we provide up-to-date, accurate market intelligence and consumer insights, ensuring you make confident, informed decisions.

Akash Anand

SNS Insider | Strategy and Stats

+1 415-230-0044

[email us here](#)

Visit us on social media:

[Facebook](#)

[X](#)

[LinkedIn](#)
[Instagram](#)
[YouTube](#)

This press release can be viewed online at: <https://www.einpresswire.com/article/754526892>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2024 Newsmatics Inc. All Right Reserved.