

Next Generation Sequencing (NGS) Library
Preparation Automation Market - Global Industry Size,
Share, Trends, Opportunity, and Forecast, 2017-2027
Segmented By Product (Kits and Consumables v/s
Instruments), By Sequencing Type (DNA Sequencing
v/s RNA Sequencing), By Application (Diagnostics v/s
Scientific Research), By End User (Pharmaceutical &
Biotechnology Companies, Clinical & Diagnostic
Laboratories, Academic & Research Institutions,
Others), By Company and By Region

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#### **Abstracts**

The global next-generation sequencing (NGS) library preparation automation market is anticipated to observe impressive growth during the forecast period 2023-2027. The major factors include growing incidences of various diseases, rising demand for next-generation sequencing, and a rise in government initiatives, which are curbing the market's growth. Next-generation Sequencing (NGS) is a parallel processing technology that can establish the sequence of nucleotides in a whole genome with ultra-high capacity, scalability, and high speed. Next-generation sequencing (NGS) includes steps such as sample pre-processing, library preparation, sequencing, and bioinformatics. The library preparation process is crucial in NGS workflow but is very time-consuming due to the several repetitive steps requiring small volumes to be pipetted with high accuracy. The automation of library preparation can enhance efficiency, produce more steady results, and improve lab efficacy. The other factors supporting the market's growth are the extensive research and development, the large number of clinical trials, increasing awareness, various government investments, the growing number of



collaborations between companies to build library preparation protocols, and technological advancements.

### Rising demand for Next Generation Sequencing

Next-generation sequencing (NGS) is a technique that uses DNA and RNA sequencing and mutation detection. It sequences thousands of genes or genomes in a shorter time, which surges the demand for its usage. Growing demand for NGS is fueling the growth of the market. This is attributed to the wide range of applications such as personalized medicines, agricultural research, drug discovery, genomics, cancer, and animal research. It is also used for non-coding RNA, identification of binding sites on transcriptional factors, and resequencing. Owing to its accurate, efficient, and advanced system, along with low costs, the rise in demand for NGS is bolstering the growth of the market. For instance, in 2018, the Centers for Medicare & Medicaid Services (CMS) stated the National Coverage Determination to carry out NSG tests to diagnose cancer. In addition, the use of next-generation sequencing in food safety and quality is propelling the market's growth.

#### Increasing Investments and R&D Activities

Governments and key market players invest in various R&D activities, which augments the market's growth. In 2022, total biotechnology financing by the National Institutes for Health was USD 7,912 billion. Pharmaceutical and biotechnology companies majorly focus on research and development (R&D), a core part of drug development processes. The significance of R&D is noticeable due to the growing number of drug approvals. For instance, in 2020, the FDA's Center for Drug Evaluation and Research (CDER) certified 53 novel drugs, whereas 48 were approved in 2019. In the U.S., the revenue in scientific R&D is likely to amount to USD 8.11 billion by the end of 2022. Also, the rise in initiatives by governments to enhance the use of NGS in R&D and continuous innovation and advancements in technology are driving the growth of the market. For instance, in 2018, the Australian government declared an investment of \$372 million for over 10 years in its Genomics Health Futures Mission to sequence 200,000 contestants.

#### Market Segmentation

The global next-generation sequencing (NGS) library preparation automation market is segmented into product, sequencing type, application, end-user, and company. Based on product, the market is divided into kits and consumables, and instruments. Based on sequencing type, the market is divided into DNA sequencing and RNA sequencing.



Based on application, the market is segmented into diagnostics and scientific research. Based on end users, the market is divided into pharmaceutical & biotechnology companies, clinical & diagnostic laboratories, academic & research institutions, and others. In terms of country, the United States is expected to be a lucrative market in the forecast period due to an increase in occurrences of genetic diseases and extensive technology development in the country.

Market Players

Agilent Technologies, Inc., BGI Group, Aurora Biomed Inc., Bio-Rad Laboratories, Inc., Danaher Corporation, F.Hoffmann-La Roche AG, Eppendorf SE, Hamilton Company, Hologic Inc., Illumina Inc., Oxford Nanopore Technologies Limited, PerkinElmer, Inc., Promega Corporation, Takara Bio Inc., and QIAGEN NV are some of the leading companies operating in the market.

Report Scope:

In this report, the global next generation sequencing (NGS) library preparation automation market has been segmented into the following categories, in addition to the industry trends, which have also been detailed below:

Next Generation Sequencing (NGS) Library Preparation Automation Market, By Product:

Kits and Consumables

Instruments

Next Generation Sequencing (NGS) Library Preparation Automation Market, By Sequencing Type:

**DNA Sequencing** 

**RNA Sequencing** 

Next Generation Sequencing (NGS) Library Preparation Automation Market, By Application:

Diagnostics



#### Scientific Research

End User:

Next Generation Sequencing (NGS) Library Preparation Automation Market, By Pharmaceutical & Biotechnology Companies Clinical & Diagnostic Laboratories Academic & Research Institutions Others Next Generation Sequencing (NGS) Library Preparation Automation Market, By Region: North America **United States** Canada Mexico Asia-Pacific China India Japan Australia South Korea

Europe & CIS



Germany

	France	
	United Kingdom	
	Spain	
	Italy	
	South America	
	Brazil	
	Argentina	
	Colombia	
	Middle East & Africa	
	South Africa	
	Saudi Arabia	
	UAE	
Competitive Landscape		
Company Profiles: Detailed analysis of the major companies present in global next- generation sequencing (NGS) library preparation automation Market		
Available Customizations:		

company's specific needs. The following customization options are available for the report:

**Company Information** 

With the given market data, TechSci Research offers customizations according to a



Detailed analysis and profiling of additional market players (up to five).



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