DNA Sequencing - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

Market Report | 2025-04-28 | 131 pages | Mordor Intelligence

AVAILABLE LICENSES:

- Single User License $4750.00
- Team License (1-7 Users) $5250.00
- Site License $6500.00
- Corporate License $8750.00

Report description:

The DNA Sequencing Market size is estimated at USD 14.40 billion in 2025, and is expected to reach USD 34.23 billion by 2030, at a CAGR of 18.91% during the forecast period (2025-2030).

The COVID-19 pandemic had a positive impact on the market studied, as it increased the demand for DNA sequencing technology in the development of therapeutics and diagnostics for COVID-19 infection. For example, in November 2021, the Union Minister of State for Science and Technology India announced that the Department of Biotechnology (DBT) had completed one lakh genome and DNA sequencing for COVID-19 and that five COVID-19 biorepositories with 57,000 samples had been made available to academia and industry for R&D and product development. Hence, owing to the increasing DNA sequencing-based R&D activities in the development of diagnostic tools or effective therapeutics for COVID-19, the market is likely to continue its significant growth during the forecast period.

Certain factors driving market growth include advances in DNA sequencing technology, increased applications in clinical diagnosis and drug discovery, and increased R&D investments. DNA sequencing has applications in diagnostics, personalized medicine, biomarkers, forensics, reproductive health, and other areas. DNA sequencing technology holds great potential in clinical R&D of cancer diagnostics and therapeutics. Recently, next-generation sequencing (NGS) technology has demonstrated its capacity as a high-throughput and affordable approach to identify and characterize clinically actionable genetic variants across numerous genes at an exceptional speed in a single test. According to a research article published in the Journal of Pure and Applied Microbiology in June 2022, DNA sequencing methods have evolved throughout time to be employed in clinical diagnostic laboratories and research labs to produce high-quality results. It aids in the identification of new targets for therapy and diagnosis, broadening the horizon for patient care. Therefore, the increasing application of DNA sequencing in clinical diagnosis and drug discovery is expected to drive market growth over the forecast period.

The technological advancements in sequencing, from 2D sequencing in the 1970s to DNA sequencing, have come a long way. In recent years, platforms such as Illumina/Solexa, ABI/SOLiD, 454/Roche, and Helicos have provided unique prospects for high-throughput functional genomic research. Furthermore, the increased launch of technologically advanced DNA sequencing platforms is expected to propel market growth. For instance, in December 2021, Singular Genomics Systems, Inc. announced the commercial release of the G4, the benchtop sequencer. The NGS platform uses revolutionary high-performance chemistry and advanced engineering to provide precision, flexibility, speed, and power for a variety of applications, including oncology and immunology research.

Moreover, growing R&D activities are expected to raise demand for DNA sequencing due to its role in drug discovery and development. For instance, in July 2022, a genomics startup in California raised USD 600 million in funding to deliver a USD 100 whole human genome using its new high-throughput, low-cost sequencing platform.

Thus, all the above-mentioned factors are expected to propel the growth of the market. However, the interpretation of complex data and the lack of skilled professionals may restrain the market growth over the forecast period.

DNA Sequencing Market Trends

The Next-generation Sequencing Segment (NGS) is Expected to Hold Significant Market Share and Expected to Follow the Same Trend Over The Forecast Period

The NGS segment is being driven by factors such as the increasing applications of NGS, speed, cost, accuracy, efficient replacement of traditional technologies, and drug discovery applications demanding NGS technology. The advantage of this technology is that it is significantly cheaper, quicker, and requires significantly less DNA, which helps in the overall growth of the segment.

There are various technological advancements in the field of medicine that are growing at a rapid pace and have led to the development of personalized medicine. For instance, in October 2022, the CDC provided the American Society for Microbiology (ASM) with funds to provide NGS training. ASM is likely to create and deliver recognized training to educate the clinical microbiology workforce on NGS technology, boost pathogen genomic sequencing capacity, and prepare for the next pandemic using advanced molecular techniques. It is also likely to educate ASM's bioinformatics partners on infectious diseases, allowing them to better comprehend science and technology's influence on public health. Such instances are expected to increase awareness about the NGS, thereby boosting demand for the segment studied.

Furthermore, product launches by the market players is expected to boost the market growth over the forecast period. For instance, in September 2022, Illumina Inc. (ILMN.O) introduced its next-generation NovaSeq X devices, which the company claims can output more than 20,000 entire genomes per year, or 2.5 times that of previous sequencers. Additionally, in July 2021, QIAGEN announced a global strategic alliance with Japan's Sysmex Corporation for the development and commercialization of cancer companion diagnostics, which will leverage both QIAGEN's leadership in this field and Sysmex's Plasma-Safe-SeqS technology for NGS. Hence, owing to the above-mentioned factors, the segment is expected to grow during the forecast period.

North America Holds a Significant Share in the Market and Expected to do Same during the Forecast Period

North America dominated the market due to an increase in funding and support activities by the government and non-government entities, especially in the United States. The increasing adoption of advanced technologies and favorable support from the government and related policies are the primary driving factors for the DNA sequencing market growth in the country.

Technological advancement in DNA sequencing and product launches is expected to boost the market growth. For instance, in December 2021, Roche launched the AVENIO Edge System to simplify and automate next-generation sequencing sample preparation, reduce human error and advance precision medicine.

Strategic activities by the market players, such as product launches, mergers and acquisitions, and partnerships, are expected to boost the demand for the DNA sequencing market. For instance, in September 2022, Genome Prairie announced the official delivery of next-generation genome sequencing technology to Saskatchewan Polytechnic's BioScience Applied Research Centre (BARC) at its Saskatoon campus in collaboration with PRIESCAN (formerly Western Economic Diversification Canada). The method, which consists of two genomic DNA sequencing equipment, allows researchers to gain a greater understanding of the human biological processes.

Hence, owing to these factors, the DNA sequencing market is expected to be one of the largest in the future.

DNA Sequencing Industry Overview

The DNA sequencing market is highly competitive and consists of a few major players. Companies like Agilent Technologies Inc., Bio-Rad Laboratories Inc., Danaher Corporation, Eurofins Scientific, F. Hoffmann-La Roche, Illumina Inc., Merck KGaA, Pacific Biosciences of California Inc., PerkinElmer Inc., and Thermo Fisher Scientific Inc., among others, hold substantial shares in the DNA sequencing market. These companies are making efforts to address the rising consumer demand and are significantly investing in production, distribution, and total quality management for the expansion of their portfolios.

Additional Benefits:

- The market estimate (ME) sheet in Excel format
- 3 months of analyst support

Table of Contents:

DNA Sequencing - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

Market Report | 2025-04-28 | 131 pages | Mordor Intelligence

To place an Order with Scotts International:

- - Print this form
- - Complete the relevant blank fields and sign
- - Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	$4750.00
	Team License (1-7 Users)	$5250.00
	Site License	$6500.00
	Corporate License	$8750.00
	VAT	
	Total	

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*		Phone*	
First Name*		Last Name*	
Job title*			
Company Name*		EU Vat / Tax ID / NIP number*	
Address*		City*	
Zip Code*		Country*	
		Date	2025-05-07
		Signature