

Saudi Arabia Next Generation Sequencing (NGS) Market Size, Share, Forecast, & Trends Analysis by Offering (Sample Preparation (DNA Extraction, Library Preparation), Instruments) Type (SMRT, DNB) Application (Clinical, Research) End User – Forecast to 2031

<https://marketpublishers.com/r/S210CA247829EN.html>

Date: October 2024

Pages: 183

Price: US\$ 4,175.00 (Single User License)

ID: S210CA247829EN

Abstracts

Saudi Arabia Next Generation Sequencing (NGS) Market Size, Share, Forecast, & Trends Analysis by Offering (Sample Preparation (DNA Extraction, Library Preparation), Instruments) Type (SMRT, DNB) Application (Clinical, Research) End User–Forecast to 2031

Saudi Arabia NGS market is projected to reach \$ 50.0 million by 2031 at a CAGR of 10.1% during the forecast period from 2024 to 2031.

Succeeding extensive secondary and primary research and in-depth analysis of the market scenario, the report comprises the analysis of key industry drivers, restraints, challenges, and opportunities. The growth of this market is driven by the rising number of cancer cases, increasing pharmaceutical R&D expenditures, and the surge in genome mapping programs are factors driving the growth of Saudi Arabia NGS market. However, the high costs of NGS systems and consumables, data confidentiality concerns, the availability of alternative technologies, the low chances of identifying positive, actionable biomarkers, and ethical & legal issues related to NGS-based diagnosis restrain the growth of this market

In addition, the increasing adoption of NGS tools among hospitals and clinical laboratories and government initiatives supporting large-scale genomic sequencing

projects offer considerable growth opportunities for market players. However, the shortage of skilled professionals, issues related to data storage, handling, interpretation, and confidentiality, and concerns about regulatory standards and standardization in diagnostic testing are some of the challenges impacting the market's growth.

The report offers a competitive landscape based on an extensive assessment of the product portfolio offerings, geographic presences, and key strategic developments adopted by leading market players in the industry in the past three to four years (2020–2024). Some of the key players operating in Saudi Arabia NGS market are Illumina, Inc. (U.S.), Thermo Fisher Scientific Inc. (U.S.), F. Hoffmann-La Roche Ltd. (Switzerland), Revvity, Inc. (U.S.), QIAGEN N.V. (Netherlands), Agilent Technologies, Inc. (U.S.), Pacific Biosciences of California, Inc. (U.S.), Danaher Corporation (U.S.), Oxford Nanopore Technologies Plc. (U.K.), Beijing Genomics Institute (BGI) (China), Bio-Rad Laboratories, Inc. (U.S.), and 10x Genomics, Inc. (U.S.).

Among all the offerings studied in this report, the consumables segment is projected to register the highest CAGR of 10.3% during the forecast period. This segment's growth is attributed to the increasing prevalence of genetic diseases, growing adoption of genetic testing, and recurring purchases of consumables over instruments.

Among all the sequencing types studied in this report, the targeted genome sequencing segment is slated to register the highest growth rate of 11.2% during the forecast period. This technology has facilitated the study of gene-drug associations, aiding in the design of gene-specific drugs with higher precision, thus increasingly adopted by pharmaceutical and biotechnology companies. Additionally, low cost, improved accuracy and speed, and greater depth of coverage than other sequencing methods are further driving the market growth.

Among all the applications studied in this report, in 2024, the research & other applications segment is expected to account for the largest share of 56.9% of Saudi Arabia NGS market. The large share of the segment is attributed to the rising prevalence of genetic diseases, the increasing need for pathogen surveillance, the availability of funding for agriculture and animal research, and supportive government initiatives. For instance, under Vision 2030, \$10 billion was allocated to stabilize the global food supply chain and boost domestic agricultural production.

Among all the end users studied in this report, the pharmaceutical & biotechnology companies segment is expected to record the highest CAGR during the forecast period.

The highest CAGR of the segment is attributed to the increasing R&D expenditure by pharmaceutical & biotechnology companies, the rising utilization of genomics for research processes, and an increasing number of biotechnology companies. Moreover, the National Biotechnology Strategy by the Saudi Arabian government is aimed at localizing bio-manufacturing, driving market growth.

Scope of the Report:

Saudi Arabia NGS Market—by Offering

Consumables

Sample Preparation Consumables

Library Preparation & Target Enrichment

DNA Extraction and Amplification

Quality Control

Other Kits & Reagents

Sequencing Consumables

NGS Platform/Instruments

Sequencing by Synthesis

Ion Semiconductor Sequencing

DNA Nanoball (DNB) Sequencing

Single-molecule Real-time Sequencing & Nanopore Sequencing

Software

Services

Note: Other kits & reagents include dilution buffers, DNA standards, reagents for DNA cleanup and nucleic acid extraction, and other reagents required to support the NGS sample preparation workflow.

Saudi Arabia NGS Market—by Sequencing Type

Targeted Genome Sequencing

Whole Genome Sequencing

Whole Exome Sequencing

Other Sequencing Types

Note: The other sequencing types segment includes degradome sequencing, chromatin immunoprecipitation (ChIP)

sequencing, and methylation sequencing.

Saudi Arabia NGS Market—by Applications

Research & Other Applications

Cancer Research

Agriculture & Animal Research

Microbiology & Infectious Disease Research

Genetic Diseases Research

Cell & Molecular Biology Research

Other Applications

Clinical Applications

Oncology

Reproductive Health

Infectious Disease

Genetic Disorders

Other Clinical Applications

Note: Other applications include food microbiology, microbiome analysis in the beverage industry, and environmental studies

Other clinical applications include the detection of metabolic and immune disorders and foodborne illnesses.

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Saudi Arabia NGS Market—by End User

Pharmaceutical & Biotechnology Companies

Hospitals & Diagnostic Laboratories

Academic Institutes & Research Centers

Other End Users

Note: Other end users include forensic laboratories & security agencies, food & beverage companies, and agriculture companies.

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