+357 96 030922
info@marketpublishers.com

Whole Exome Sequencing Market - A Global and Regional Analysis: Focus on Product, Workflow, Application, End User, and Country - Analysis and Forecast, 2024-2034

https://marketpublishers.com/r/W11FDA9DD9B9EN.html
Date: June 2025
Pages: 0
Price: US$ 5,400.00 (Single User License)
ID: W11FDA9DD9B9EN

Abstracts

Hard copy option is available on any of the options above at an additional charge of $500. Please email us at order@marketpublishers.com with your request.

This report will be delivered in 7-10 working days.Introduction to Whole Exome Sequencing Market

Whole-exome sequencing is utilized to examine the protein-coding regions of the genome, aiming to reveal genetic factors that influence disease and population health. Growing adoption in clinical diagnostics, integration with AI and bioinformatics, and increasing focus on precision medicine are some of the factors driving the market for whole exome sequencing. WES has demonstrated a significant diagnostic yield in identifying genetic disorders.

Furthermore, the shifting trend towards personalized medicine is another driver for whole exome sequencing adoption. By providing detailed genetic insights, whole exome sequencing enables healthcare providers to tailor treatments based on individual genetic profiles. This approach is particularly beneficial in oncology, where understanding specific genetic mutations can guide targeted therapies. Moreover, the growing recognition of genetic factors in common diseases, including cardiovascular conditions and metabolic disorders, is propelling the adoption of whole-exome sequencing. By uncovering actionable insights into a patient's genetic profile, healthcare providers can develop personalized prevention and treatment plans that enhance patient outcomes. This increasing application of WES in clinical settings is supported by advancements in bioinformatics and data analysis, which streamline the interpretation of

+357 96 030922
info@marketpublishers.com

complex genomic data.

Moreover, the integration of artificial intelligence (AI) into whole exome sequencing (WES) is revolutionizing the field of genomic diagnostics by enhancing data analysis, improving accuracy, and expediting the diagnostic process. For instance, Illumina's DRAGEN-ML pipeline employs sophisticated machine-learning models to improve sensitivity and reduce false positives in variant detection. This integration allows for more reliable identification of genetic variants, crucial for diagnosing genetic disorders and cancers. Also, governments are increasingly providing reimbursement policies to support the use of WES in clinical settings. For instance, in the U.S., the Centers for Medicare and Medicaid Services (CMS) have established guidelines for the coverage of WES in diagnosing rare genetic disorders. This is expected to drive the market over a forecast period.

Some of the key players in the market are Illumina, Inc., Thermo Fisher Scientific, Agilent Technologies, BGI Group, Genoa Healthcare, GeneDx, Pacific Bioscience of California, Inc., Bio-Rad Laboratories Inc., Eurofins Scientific Group, and F. Hoffmann-La Roche AG.

Market Segmentation:

Segmentation 1: by Product

Kits

Instruments

Segmentation 2: by Workflow

Sample Extraction/Isolation/Purification

Library Preparation

Library Quantification

Target Enrichment

Analysis (Bioinformatics)

+357 96 030922
info@marketpublishers.com

Segmentation 3: by Application

- Oncology Research
- Rare Disease Research
- Gene Discovery
- Others

Segmentation 4: by End User

- Pharmaceutical and Biotechnology Companies
- Diagnostic Laboratories
- Hospitals and Clinics
- Research and Academic Institutes
- Other End Users

Segmentation 5: by Region

- North America
- Europe
- Asia-Pacific
- Latin America
- Middle East and Africa

+357 96 030922
info@marketpublishers.com

How can this report add value to an organization?

Product/Innovation Strategy: This report provides a comprehensive product/innovation strategy for the global whole exome sequencing market, identifying opportunities for market entry, technology adoption, and sustainable growth. It offers actionable insights, helping organizations gain a competitive edge, and capitalize on the increasing demand.

Growth/Marketing Strategy: This report offers a comprehensive growth and marketing strategy designed specifically for the whole exome sequencing market. It presents a targeted approach to identifying specialized market segments, establishing a competitive advantage, and implementing creative marketing initiatives aimed at optimizing market share and financial performance. By harnessing these strategic recommendations, organizations can elevate their market presence, seize emerging prospects, and efficiently propel revenue expansion.

Competitive Strategy: This report crafts a strong competitive strategy tailored to the whole exome sequencing market. It evaluates market rivals, suggests methods to stand out, and offers guidance for maintaining a competitive edge. By adhering to these strategic directives, companies can position themselves effectively in the face of market competition, ensuring sustained prosperity and profitability.

+357 96 030922
info@marketpublishers.com

Contents

Executive Summary
Scope and Definition
Market/Product Definition
Key Questions Answered
Analysis and Forecast Note

1. MARKETS: INDUSTRY OUTLOOK

1.1 Market Trends
1.2 Impact of COVID-19 on the Market
1.3 Regulatory Framework
1.4 Supply Chain Analysis
1.5 Market Dynamics
  1.5.1 Market Drivers
  1.5.2 Market Restraints
  1.5.3 Market Opportunities

2. WHOLE EXOME SEQUENCING MARKET, BY PRODUCT, $MILLION, 2023-2034

2.1 Kits
  2.1.1 Target Enrichment Kits
  2.1.2 Library Preparation Kits
  2.1.3 Sequencing Kits
2.2 Instruments

3. WHOLE EXOME SEQUENCING MARKET, BY WORKFLOW, $MILLION, 2023-2034

3.1 Sample Extraction/ Isolation/ Purification
3.2 Library Preparation
3.3 Library Quantification
3.4 Target Enrichment
3.5 Analysis (Bioinformatics)

4. WHOLE EXOME SEQUENCING MARKET, BY APPLICATION TYPE, $MILLION, 2023-2034

+357 96 030922
info@marketpublishers.com

4.1 Oncology Research
4.2 Rare Disease Research
4.3 Gene Discovery
4.4 Other Applications

5. WHOLE EXOME SEQUENCING MARKET, BY END USER, $MILLION, 2023-2034

5.1 Pharmaceutical and Biotechnology Companies
5.2 Diagnostic Laboratories
5.3 Hospitals and Clinics
5.4 Research and Academic Institutes
5.5 Other End Users

6. WHOLE EXOME SEQUENCING MARKET, BY REGION, $MILLION, 2023-2034

6.1 North America Whole Exome Sequencing Market
  6.1.1 Market Dynamics
  6.1.2 Market Sizing and Forecast
    6.1.2.1 North America Whole Exome Sequencing Market, by End User
    6.1.2.2 North America Whole Exome Sequencing Market, by Country
      6.1.2.2.1 U.S.
      6.1.2.2.2 Canada
6.2 Europe Whole Exome Sequencing Market
  6.2.1 Market Dynamics
  6.2.2 Market Sizing and Forecast
    6.2.2.1 Europe Whole Exome Sequencing Market, by End User
    6.2.2.2 Europe Whole Exome Sequencing Market, by Country
      6.2.2.2.1 Germany
      6.2.2.2.2 France
      6.2.2.2.3 U.K.
      6.2.2.2.4 Italy
      6.2.2.2.5 Spain
      6.2.2.2.6 Rest-of-Europe
6.3 Asia-Pacific Whole Exome Sequencing Market
  6.3.1 Market Dynamics
  6.3.2 Market Sizing and Forecast
    6.3.2.1 Asia-Pacific Whole Exome Sequencing Market, by Country
      6.3.2.1.1 Japan
      6.3.2.1.2 China

+357 96 030922
info@marketpublishers.com

6.3.2.1.3 Australia
6.3.2.1.4 South Korea
6.3.2.1.5 Rest of Asia-Pacific
6.4 Latin America Whole Exome Sequencing Market
6.4.1 Market Dynamics
6.4.2 Market Sizing and Forecast
6.4.2.1 Latin America Whole Exome Sequencing Market, by End User
6.4.2.2 Latin America Whole Exome Sequencing Market, by Country
6.4.2.2.1 Brazil
6.4.2.2.2 Mexico
6.4.2.2.3 Rest-of-Latin America
6.5 Middle East and Africa Whole Exome Sequencing Market
6.5.1 Market Dynamics
6.5.2 Market Sizing and Forecast
6.5.2.1 Middle East and Africa Whole Exome Sequencing Market, by End User
6.5.2.2 Middle East and Africa Whole Exome Sequencing Market, by Country
6.5.2.2.1 U.A.E.
6.5.2.2.2 South Africa
6.5.2.2.3 Rest-of-Middle East and Africa

7. COMPETITIVE LANDSCAPE AND COMPANY PROFILING

7.1 Competitive Landscape
7.1.1 Mergers and Acquisitions
7.1.2 Synergistic Activities
7.1.3 Product Launch and Approval Activities
7.1.4 Expansion, Funding, and Other Activities
7.2 Company Profiles
7.2.1 Illumina Inc.
7.2.1.1 Company Overview
7.2.1.2 Product Offering
7.2.1.3 Key Competitors of the Company
7.2.1.4 Key Customers of the Company
7.2.1.5 Analyst Perspective
7.2.2 Thermo Fisher Scientific, Inc.
7.2.2.1 Company Overview
7.2.2.2 Product Offering
7.2.2.3 Key Competitors of the Company
7.2.2.4 Key Customers of the Company

+357 96 030922
info@marketpublishers.com

7.2.2.5 Analyst Perspective
7.2.3 BGI Group ((Beijing Genomics Institute (BGI))
7.2.3.1 Company Overview
7.2.3.2 Product Offering
7.2.3.3 Key Competitors of the Company
7.2.3.4 Key Customers of the Company
7.2.3.5 Analyst Perspective
7.2.4 GeneDx
7.2.4.1 Company Overview
7.2.4.2 Product Offering
7.2.4.3 Key Competitors of the Company
7.2.4.4 Key Customers of the Company
7.2.4.5 Analyst Perspective
7.2.5 Pacific Biosciences of California, Inc.
7.2.5.1 Company Overview
7.2.5.2 Product Offering
7.2.5.3 Key Competitors of the Company
7.2.5.4 Key Customers of the Company
7.2.5.5 Analyst Perspective
7.2.6 Eurofins Scientific SE
7.2.6.1 Company Overview
7.2.6.2 Product Offering
7.2.6.3 Key Competitors of the Company
7.2.6.4 Key Customers of the Company
7.2.6.5 Analyst Perspective
7.2.7 F. Hoffmann-La Roche Ltd
7.2.7.1 Company Overview
7.2.7.2 Product Offering
7.2.7.3 Key Competitors of the Company
7.2.7.4 Key Customers of the Company
7.2.7.5 Analyst Perspective
7.2.8 Laboratory Corporation of America Holdings
7.2.8.1 Company Overview
7.2.8.2 Product Offering
7.2.8.3 Key Competitors of the Company
7.2.8.4 Key Customers of the Company
7.2.8.5 Analyst Perspective
7.2.9 Novogene Corporation
7.2.9.1 Company Overview

+357 96 030922
info@marketpublishers.com

7.2.9.2 Product Offering
7.2.9.3 Key Competitors of the Company
7.2.9.4 Key Customers of the Company
7.2.9.5 Analyst Perspective
7.2.10 Oxford Nanopore Technologies plc
7.2.10.1 Company Overview
7.2.10.2 Product Offering
7.2.10.3 Key Competitors of the Company
7.2.10.4 Key Customers of the Company
7.2.10.5 Analyst Perspective
7.2.11 QIAGEN N.V.
7.2.11.1 Company Overview
7.2.11.2 Product Offering
7.2.11.3 Key Competitors of the Company
7.2.11.4 Key Customers of the Company
7.2.11.5 Analyst Perspective
7.2.12 Other Companies

8. RESEARCH METHODOLOGY

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Whole Exome Sequencing Market - A Global and Regional Analysis: Focus on Product, Workflow, Application, End User, and Country - Analysis and Forecast, 2024-2034

Product link: https://marketpublishers.com/r/W11FDA9DD9B9EN.html

Price: US$ 5,400.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/W11FDA9DD9B9EN.html