

Report Information

More information from: <https://www.marketresearchfuture.com/reports/liquid-biopsy-market-710>

Liquid Biopsy Market Research Report - Global Forecast to 2032

Report / Search Code: MRFR/HC/0239-CR

Publish Date: February, 2023

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Price	1-user PDF : \$ 4950.0	Site PDF : \$ 5950.0	Enterprise PDF : \$ 7250.0
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Description:

Global Liquid Biopsy Market Overview

The liquid biopsy market size was valued at USD 3.17 billion in 2021 and is projected to grow from USD 3.81 Billion in 2022 to USD 15.2 billion by 2032, exhibiting a compound annual growth rate (CAGR) of 18.9% during the forecast period (2023 - 2032). Surging demand for advanced diagnosing equipment coupled with the rising number of research laboratories in the developing economies are the key market drivers enhancing the market growth.

Liquid Biopsy Market

Source: Secondary Research, Primary Research, MRFR Database and Analyst Review

Liquid Biopsy Market Trends

- Government investments on healthcare infrastructure to boost market growth

The increase in the funding by the federal government is set to drive the market growth rate. Growth and expansion of healthcare industry being driven by both public and private players especially in the developing economies will create lucrative market growth opportunities. Also, high return on investments assured by the research activities will also work in the favor of the market. Initiatives by the government to spread awareness especially in the developing economies, surge in the personal disposable income level, introduction of technologically driven products in hospitals, increasing investment for the development of advanced medical products and devices and increase in demand for non-invasive surgical procedures, positively enhanced the market CAGR of liquid biopsy across the globe in the recent years. There are some other type of biopsies like kidney biopsy, needle biopsy and liver biopsy

Further, in the past decade, governments in various countries and health organizations have undertaken several initiatives to spread awareness about cancer. For instance, the WHO's National Cancer Control program is a public health program that aims to reduce the number of cancer deaths and improve the quality of life of cancer patients. Similarly, the National Breast and Cervical Cancer Early Detection Program (NBCCEDP), initiated by the US Centers for Diseases and Prevention (CDC) in 1991, provides breast cancer screening and diagnosis for uninsured and low-income patients in the US every year. In 2020, this program provided breast cancer screening and diagnostic services to 260,143 women. This program also provided cervical cancer screening and diagnostic services to 116,562 women in the same year.

Additionally, the increased awareness about the cancer is boosting the liquid biopsy market growth as liquid biopsy technique can detect the cancer early, can monitor progression of tumor, and can assess clinical prognosis. Moreover, the proliferation of advanced technologies has boosted the demand for the non-invasive diagnosis and treatments that is expected to spur the demand for the liquid biopsy in the forthcoming years. The rising investments by the market players in the clinical trials for the development of innovative diagnostic solutions is exponentially contributing towards the growth of the liquid biopsy market revenue.

However, rising expenditure for research and development proficiencies especially in the developed and developing economies pertaining to the medical instruments and devices will further create lucrative market growth opportunities. Research and development proficiencies being conducted by pharmaceutical and biopharmaceutical countries for the integration of advanced technologies in the healthcare facilities is also bolstering the market growth rate.

Liquid Biopsy Market Segment Insights

Liquid Biopsy Biomarker Types Insights

The market segments of liquid biopsy, based on biomarker types, includes circulating tumor cells, circulating tumor DNA, extracellular vesicles, and other biomarker. The circulating tumor DNA segment held the majority share in 2021 to the market revenue of liquid biopsy. Over the recent years, ctDNA-based liquid biopsy analysis has created new opportunities in molecular diagnosis and monitoring of cancer. It is capable of precisely determining tumor progression, prognosis, and assisting in targeted therapy. However, other biomarker is the fastest-growing category due to rise in the adoption of exosomes as a liquid biopsy in oncology clinical diagnosis coupled with the introduction of novel products drives the segment growth.

September 2021: miR Scientific presented data for its miR Sentinel Prostate Cancer Test at the American Urological Association's (AUA) 2021 Annual Meeting. This exosome-based liquid biopsy test uses a single urine sample to

detect prostate cancer with an accuracy of 90%.

Liquid Biopsy Application Insights

The liquid biopsy market data has been bifurcated by application into cancer therapeutic application, reproductive health, and other therapeutic. The cancer therapeutic segment dominated the market in 2021 and is projected to be the faster-growing segment during the forecast period, 2022-2030. The use of liquid biopsy products has been particularly significant in understanding cancer signatures and developing customized therapies. Liquid biopsy is one of the many emerging technologies developed to address the growing cancer prevalence. However, reproductive health is the fastest-growing category due to the increased adoption of the liquid biopsy techniques for the

Figure 2: Liquid Biopsy Market, by Application, 2021 & 2030 (USD Million)
Liquid Biopsy Market, by Application, 2021 & 2030

Source: Secondary Research, Primary Research, MRFR Database and Analyst Review

Liquid Biopsy Sample Insights

Based on sample, the liquid biopsy industry has been segmented into blood sample, urine sample, and other. Blood sample held the largest segment share in 2021. A blood-based test is non-invasive, has no risk, and is painless. In addition, it reduces the cost and time taken for diagnosis. CTCs, cfDNAs, and exosomes, as well as microvesicles, can be detected in the blood sample, thus increasing the adoption of blood-based liquid biopsy. However, urine sample is the fastest-growing category as liquid biopsy test uses a single urine sample to detect various type of cancer.

Liquid Biopsy Regional Insights

By Region, the study provides the market insights into North America, Europe, Asia-Pacific and Rest of the World. North America liquid biopsy market accounted for USD 1.39 billion in 2021 and is expected to exhibit a significant CAGR growth during the study period. This is owing to greater investments and the presence of a number of biotechnology companies developing the tests. Various organizations, such as the American Society of Clinical Oncology (ASCO), aid the implementation of liquid handling system. Moreover, US liquid biopsy market held the largest market share, and the Canada liquid biopsy market was the fastest growing market in the North America region

Further, the major countries studied in the market report are: The U.S, Canada, Germany, France, UK, Italy, Spain, China, Japan, India, Australia, South Korea, and Brazil.

Figure 3: LIQUID BIOPSY MARKET SHARE BY REGION 2021 (%)
LIQUID BIOPSY MARKET SHARE BY REGION 2021

Source: Secondary Research, Primary Research, MRFR Database and Analyst Review

Europe liquid biopsy market accounts for the second-largest market share due to increasing number of research studies for the discovery & development of novel cancer biomarkers, presence of many pharmaceutical companies. Further, the Germany market of liquid biopsy held the largest market share, and the UK market of liquid biopsy was the fastest growing market in the European region

The Asia-Pacific liquid biopsy market is expected to grow at the fastest CAGR from 2022 to 2030. This is due to rising investment from key players in the growth of the advanced devices, growing number of processes pertaining to drug development, stringent regulatory scenario in the pharmaceutical industry and rising number of research activities in this region. Moreover, China market of liquid biopsy held the largest market share, and the India market of liquid biopsy was the fastest growing market in the Asia-Pacific region.

Liquid Biopsy Key Market Players & Competitive Insights

Major market players are spending a lot of money on R&D to increase their product lines, which will help the liquid biopsy market grow even more. Market participants are also taking a range of strategic initiatives to grow their worldwide footprint, with key market developments such as new product launches, contractual agreements, mergers and acquisitions, increased investments, and collaboration with other organizations. Competitors in the liquid biopsy industry must offer cost-effective items to expand and survive in an increasingly competitive and rising market environment.

One of the primary business strategies adopted by manufacturers in the liquid biopsy industry to benefit clients and expand the market sector is to manufacture locally to reduce operating costs. The liquid biopsy market major player such as F. Hoffmann-La Roche Ltd. (Switzerland), Myriad Genetics, Inc. (US), QIAGEN (Netherlands), and others are working to expand the market demand by investing in research and development activities.

BioMark Diagnostics Inc. operates as an oncology-focused company. The Company develops and owns multiple intellectual properties in detection and quantitation of metabolites. BioMark Diagnostics serves patients in Canada. In June 2021, BioMark Diagnostic Solutions, Inc. received USD 825,000 funding to develop BioMark's liquid biopsy assay for screening lung cancer. A major part of the funding is being issued by Consortium for Industrial Research and Innovation in Medical Technology and Spark grants from the Canadian Cancer Society, Brain Canada Foundation, and Canadian Institutes of Health Research - Institute of Cancer Research.

Also, Thermo Fisher Scientific, Inc. manufactures scientific instruments, consumables, and chemicals. The Company offers analytical instruments, laboratory equipment, software, services, consumables, reagents, chemicals, and supplies to pharmaceutical and biotech companies, hospitals and clinical diagnostic labs, universities, research institutions, and government agencies. In August 2022, Thermo Fisher Scientific Inc. (US) launched the first NGS-based tests to support both DNA and RNA input. The Ion Torrent Oncomine Myeloid MRD Assays (RUO) provide comprehensive and highly sensitive myeloid measurable residual (MDR) assessments from blood and bone marrow samples.

Key Companies in the market of liquid biopsy includes

- Hoffmann-La Roche Ltd. (Switzerland),
- Myriad Genetics, Inc. (US),
- QIAGEN (Netherlands),

- Thermo Fisher Scientific, Inc. (US),
- Guardant Health, Inc. (US),
- MDxHealth SA (Belgium),
- Exact Sciences Corporation (US),
- Illumina Inc. (US),
- Sysmex Inostics (US),
- Biocept, Inc. (US),
- NeoGenomics, Inc. (US),
- ANGLE plc (UK),
- Menarini-Silicon Biosystems (Italy),
- Vortex Biosciences, Inc. (US),
- Exosome Diagnostics, Inc. (US),
- Agena Bioscience, Inc. (US),
- MedGenome Inc. (US),
- Epigenomics AG (Germany),
- Personal Genome Diagnostics, Inc. (US), among others

Liquid Biopsy Industry Developments

May 2020: BRACAnalysis CDx test by Myriad Genetics was approved by FDA for use as a companion diagnostic by clinicians to detect metastatic castration-resistant prostate cancer in men.

Liquid Biopsy Market Segmentation

Liquid Biopsy Biomarker Types Outlook

- Circulating Tumor Cells
- Circulating Tumor DNA
- Extracellular Vesicles
- Other Biomarker

Liquid Biopsy Application Outlook

- Cancer Therapeutic Application
- Reproductive Health
- Other Therapeutic

Liquid Biopsy Sample Outlook

- Blood Sample
- Urine Sample
- Other

Liquid Biopsy Regional Outlook

- North America
 - US
 - Canada
- Europe

- Germany
- France
- UK
- Italy
- Spain
- Rest of Europe
- Asia-Pacific
 - China
 - Japan
 - India
 - Australia
 - South Korea
 - Australia
 - Rest of Asia-Pacific
- Rest of the World
 - Middle East
 - Africa
 - Latin America

Table of Content:

Contents

1 Report Prologue

2 Introduction

2.1 Scope Of Study 16

2.2 Research Objective 16

2.3 Assumptions & Limitations 17

2.3.1 Assumptions 17

2.3.2 Limitations 17

2.4 Market Structure 17

3 Research Methodology

3.1 Research Process 18

3.2 Primary Research 19

3.3 Secondary Research 19

4 Market Dynamics

4.1 Introduction 20

4.2 Drivers 20

4.2.1 Comparatively Painless And Non-Invasive Technique 20

4.2.2 Early Real Time High Precision Detection Of Diseases 20

4.2.3 Useful For Designing Effective Treatment Strategies Based On The Real Time Molecular Assessment For The Progression Of The Disease 21

4.2.4 Rise In Cases Of Cancer And Other Diseases 21

4.2.5 Lifestyle Changes And Environmental Factors 21

4.2.6 Other Advantages Over Other Techniques	22
4.2.7 The Recent Technological Advancements Has Increased The Appeal Of Liquid Biopsy	22
4.2.8 Transferability Of Liquid Biopsy	22
4.2.9 Rising Investment In Research And Developments And Collaborations Between Companies And Public Organizations	23
4.2.10 Greater Focus On Venture Capital	23
4.2.11 Demographical Factors	23
4.3 Restraints	24
4.3.1 Prohibitive Costs Associated With Liquid Biopsy	24
4.3.2 Lower Sensitivity For Certain Biomarkers	24
4.3.3 Not All Cancers Patients Benefit From Early Detection	24
4.3.4 Liquid Biopsy Is Not All Non-Invasive	24
4.3.5 Differential Awareness And Availability Between Developing And Developed World	25
4.3.6 Issues In Venture Capital, Startups, And Collaborations	25
4.4 Opportunities	25
4.4.1 Growing Collaboration Between Companies Has Become The Entrance Gateway For New Firms	25
4.4.2 Funding From Public Organizations Is A Good Strategy To Reduce Developments Costs	26
4.4.3 Rise In Research And Developments Investment	26
4.4.4 Developing Economies Provide An Unserved Market For Liquid Biopsy	26
4.4.5 Growing Trend Of Start-Ups And Venture Investment In The Field Of Liquid Biopsy	26
4.5 Challenges	27
4.5.1 Information And Interest Gap Between The Investors And The Developers	27
4.5.2 Lack Of Trained Professionals In Developing Regions	27
4.5.3 Lack Of Standardization And Transparency	27
5 Market Factor Analysis	
5.1 Porter's Five Force Analysis	28
5.1.1 Bargaining Power Of Buyer	29
5.1.2 Bargaining Power Of Supplier	30
5.1.3 Threat From Substitutes	30
5.1.4 Threat From A New Entrant	30
5.1.5 Intensity Of Competitive Rivalry	31
5.2 Value Chain Analysis	32
5.2.1 Device Manufacturers	32
5.2.2 Software Developers	32
5.2.3 Reagent And Accessory Suppliers	32
5.2.4 Healthcare Providers	32
5.2.5 Patients	32
6 Liquid Biopsy Market, By Biomarker Types	
6.1 Introduction	34
6.2 Circulating Tumor Cells (CTCs)	36
6.3 Circulating Tumour DNA (CtDNA)	37
6.4 Extracellular Vesicles (EVs)	39

6.5 Other Biomarker (Circulating RNA And Proteins) 40

7 Liquid Biopsy Market, By Application

7.1 Introduction 41

7.2 Cancer 43

7.3 Reproductive Health 44

7.4 Other Therapeutic Application 45

8 Global Liquid Biopsy Market, By Sample

8.1 Introduction 47

8.2 Blood Sample 49

8.3 Urine Sample 50

8.4 Other Sample 51

9 Global Liquid Biopsy Market By End User

9.1 Introduction 52

9.2 Hospitals And Laboratories 54

9.3 Academic And Research Centres 55

9.4 Other End Users 56

10 Global Liquid Biopsy Market, By Region

10.1 Introduction 57

10.2 North America 59

Liquid Biopsy Market, By Biomarker Types

Liquid Biopsy Market, By Application

10.2.1 US

Liquid Biopsy Market, By Biomarker Types

Liquid Biopsy Market, By Application

10.2.2 Canada 68

Liquid Biopsy Market, By Biomarker Types

Liquid Biopsy Market, By Application

10.3 Europe 72

Liquid Biopsy Market, By Biomarker Types

Liquid Biopsy Market, By Application

10.3.1 Germany 77

Liquid Biopsy Market, By Biomarker Types

Liquid Biopsy Market, By Application

10.3.2 France 81

Liquid Biopsy Market, By Biomarker Types

Liquid Biopsy Market, By Application

10.3.3 UK 85

Liquid Biopsy Market, By Biomarker Types

Liquid Biopsy Market, By Application

10.3.4 Italy 89

Liquid Biopsy Market, By Biomarker Types

Liquid Biopsy Market, By Application

10.3.5 Spain 93

Liquid Biopsy Market, By Biomarker Types

Liquid Biopsy Market, By Application

10.3.6 Rest Of Europe 97

Liquid Biopsy Market, By Biomarker Types

Liquid Biopsy Market, By Application

10.4 Asia-Pacific 102

Liquid Biopsy Market, By Biomarker Types

Liquid Biopsy Market, By Application

10.4.1 Japan 107

Liquid Biopsy Market, By Biomarker Types

Liquid Biopsy Market, By Application

10.4.2 China 111

Liquid Biopsy Market, By Biomarker Types

Liquid Biopsy Market, By Application

10.4.3 India 115

Liquid Biopsy Market, By Biomarker Types

Liquid Biopsy Market, By Application

10.4.4 Australia 119

Liquid Biopsy Market, By Biomarker Types

Liquid Biopsy Market, By Application

10.4.5 South Korea 123

Liquid Biopsy Market, By Biomarker Types

Liquid Biopsy Market, By Application

10.4.6 Rest Of Asia-Pacific 127

Liquid Biopsy Market, By Biomarker Types

Liquid Biopsy Market, By Application

10.5 Middle East & Africa 132

Liquid Biopsy Market, By Biomarker Types

Liquid Biopsy Market, By Application

10.5.1 UAE 137

Liquid Biopsy Market, By Biomarker Types

Liquid Biopsy Market, By Application

10.5.2 Saudi Arabia 141

Liquid Biopsy Market, By Biomarker Types

Liquid Biopsy Market, By Application

10.5.3 Egypt 145

Liquid Biopsy Market, By Biomarker Types

Liquid Biopsy Market, By Application

10.5.4 Rest Of Middle East & Africa 149

Liquid Biopsy Market, By Biomarker Types

Liquid Biopsy Market, By Application

11 Company Profile	
11.1 Guardant Health, Inc	154
11.1.1 Company Overview	154
11.1.2 Product/Business Segment Overview	154
11.1.3 Financial Overview	154
11.1.4 Key Developments	155
11.1.5 SWOT Analysis	156
11.2 Trovogene, Inc	157
11.2.1 Company Overview	157
11.2.2 Product/Business Segment Overview	157
11.2.3 Financial Overview	157
11.2.4 SWOT Analysis	158
11.3 RainDance Technologies, Inc.	159
11.3.1 Company Overview	159
11.3.2 Product/Business Segment Overview	159
11.3.3 Financial Overview	159
11.3.4 Key Developments	160
11.3.5 SWOT Analysis	160
11.4 Agena Bioscience Inc. Inc.	161
11.4.1 Company Overview	161
11.4.2 Product/Business Segment Overview	161
11.4.3 Financial Overview	161
11.4.4 Key Developments	161
11.4.5 SWOT Analysis	162
11.5 Admera Health	163
11.5.1 Company Overview	163
11.5.2 Product/Business Segment Overview	163
11.5.3 Financial Overview	163
11.5.4 Key Developments	163
11.5.5 SWOT Analysis	164
11.6 Biocept, Inc.	165
11.6.1 Company Overview	165
11.6.2 Product/Business Segment Overview	165
11.6.3 Financial Overview	165
11.6.4 Key Developments	165
11.7 Circulogene Theranostics	166
11.7.1 Company Overview	166
11.7.2 Product/Business Segment Overview	166
11.7.3 Financial Overview	166
11.7.4 Key Developments	166
11.8 Inivata Ltd	167
11.8.1 Company Overview	167

11.8.2 Product/Business Segment Overview 167

11.8.3 Financial Overview 167

11.8.4 Key Developments 167

11.9 SAGA Diagnostics AB 168

11.9.1 Company Overview 168

11.9.2 Product/Business Segment Overview 168

11.9.3 Financial Overview 168

11.9.4 Key Developments 168

11.10 Exosome Diagnostics 169

11.10.1 Company Overview 169

11.10.2 Product/Business Segment Overview 169

11.10.3 Financial Overview 169

11.10.4 Key Developments 169

12 List Of Tables

TABLE 1 GLOBAL LIQUID BIOPSY MARKET BY BIOMARKER TYPE, USD MILLION (2022-2030)
34

TABLE 2 CIRCULATING TUMOR CELLS (CTCS) MARKET, BY REGION, 2022-2030 (USD
MILLION) 36

TABLE 3 CIRCULATING TUMOUR DNA (CTDNA) MARKET, BY REGION, 2022-2030 (USD
MILLION) 38

TABLE 4 EXTRACELLULAR VESICLES (EVS) MARKET, BY REGION, 2022-2030 (USD MILLION)
39

TABLE 5 OTHER BIOMARKER TYPE MARKET, BY REGION, 2022-2030 (USD MILLION) 40

TABLE 6 GLOBAL LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022-2030
(USD MILLION) 42

TABLE 7 CANCER THERAPEUTIC APPLICATION MARKET, BY REGION, 2022-2030 (USD
MILLION) 43

TABLE 8 REPRODUCTIVE HEALTH THERAPEUTIC APPLICATION MARKET, BY REGION, 2022-
2030 (\$ ILLION) 44

TABLE 9 OTHER THERAPEUTIC APPLICATION MARKET, BY REGION, 2022-2030 (USD
MILLION) 45

TABLE 10 GLOBAL LIQUID BIOPSY MARKET BY SAMPLE, 2022-2030 (USD MILLION) 47

TABLE 11 BLOOD SAMPLE MARKET, BY REGION, 2022-2030 (USD MILLION) 49

TABLE 12 URINE SAMPLE MARKET, BY REGION, 2022-2030 (USD MILLION) 50

TABLE 13 OTHER SAMPLE MARKET, BY REGION, 2022-2030 (USD MILLION) 51

TABLE 14 GLOBAL LIQUID BIOPSY MARKET BY END USER, 2022-2030 (USD MILLION) 52

TABLE 15 HOSPITALS AND LABORATORIES END USERS MARKET, BY REGION, 2022-2030
(USD MILLION) 54

TABLE 16 ACADEMIC AND RESEARCH CENTERS END USERS MARKET, BY REGION, 2022-
2030 (USD MILLION) 55

TABLE 17 OTHER END USERS MARKET, BY REGION, 2022-2030 (USD MILLION) 56

TABLE 18 GLOBAL LIQUID BIOPSY MARKET, BY REGION, 2022-2030 (USD MILLION) 57

TABLE 19 NORTH AMERICA LIQUID BIOPSY MARKET, BY COUNTRY, 2022-2030 (USD
MILLION) 59

TABLE 20 NORTH AMERICA LIQUID BIOPSY MARKET, BY BIOMARKER TYPE, 2022-2030 (USD
MILLION) 60

TABLE 21 NORTH AMERICA LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS,
2022-2030 (USD MILLION) 61

TABLE 22 NORTH AMERICA LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022-2030 (USD MILLION) 62

TABLE 23 NORTH AMERICA LIQUID BIOPSY MARKET BY END USERS 63

TABLE 24 U.S. LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022-2030 (USD MILLION) 64

TABLE 25 U.S. LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022-2030 (USD MILLION) 65

TABLE 26 U.S. LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022-2030 (USD MILLION) 66

TABLE 27 U.S. LIQUID BIOPSY MARKET BY END USERS, 2022 (USD MILLION) 67

TABLE 28 CANADA LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022-2030 (USD MILLION) 68

TABLE 29 CANADA LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022-2030 (USD MILLION) 69

TABLE 30 CANADA LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022-2030 (USD MILLION) 70

TABLE 31 CANADA LIQUID BIOPSY MARKET BY END USERS, 2022-2030 (USD MILLION) 71

TABLE 32 EUROPE LIQUID BIOPSY MARKET BY COUNTRY, 2022-2030 (USD MILLION) 72

TABLE 33 EUROPE LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022-2030 (USD MILLION) 73

TABLE 34 EUROPE LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022-2030 (USD MILLION) 74

TABLE 35 EUROPE LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022-2030 (USD MILLION) 75

TABLE 36 EUROPE LIQUID BIOPSY MARKET BY END USERS, 2022-2030 (USD MILLION) 76

TABLE 37 GERMANY LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022-2030 (USD MILLION) 77

TABLE 38 GERMANY LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022-2030 (USD MILLION) 78

TABLE 39 GERMANY LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022-2030 (USD MILLION) 79

TABLE 40 GERMANY LIQUID BIOPSY MARKET BY END USERS, 2022-2030 (USD MILLION) 80

TABLE 41 FRANCE LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022-2030 (USD MILLION) 81

TABLE 42 FRANCE LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022-2030 (USD MILLION) 82

TABLE 43 FRANCE LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022-2030 (USD MILLION) 83

TABLE 44 FRANCE LIQUID BIOPSY MARKET BY END USERS, 2022-2030 (USD MILLION) 84

TABLE 45 UK LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022-2030 (USD MILLION) 85

TABLE 46 UK LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022-2030 (USD MILLION) 86

TABLE 47 UK LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022-2030 (USD MILLION) 87

TABLE 48 UK LIQUID BIOPSY MARKET BY END USERS, 2022-2030 (USD MILLION) 88

TABLE 49 ITALY LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022-2030 (USD MILLION) 89

TABLE 50 ITALY LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022-2030 (USD MILLION) 90

TABLE 51 ITALY LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022-2030 (USD MILLION) 91

TABLE 52 ITALY LIQUID BIOPSY MARKET BY END USERS, 2022-2030 (USD MILLION) 92

TABLE 53 SPAIN LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022-2030 (USD MILLION) 93

TABLE 54 SPAIN LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022-2030 (USD MILLION) 94

TABLE 55 SPAIN LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022-2030 (USD MILLION) 95

TABLE 56 SPAIN LIQUID BIOPSY MARKET BY END USERS, 2022-2030 (USD MILLION) 96

TABLE 57 REST OF EUROPE LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022-2030 (USD MILLION) 97

TABLE 58 REST OF EUROPE LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022-2030 (USD MILLION) 98

TABLE 59 REST OF EUROPE LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022-2030 (USD MILLION) 99

TABLE 60 REST OF EUROPE LIQUID BIOPSY MARKET BY END USERS, 2022-2030 (USD MILLION) 100

TABLE 61 ASIA-PACIFIC LIQUID BIOPSY MARKET BY COUNTRY, 2022-2030 (USD MILLION) 102

TABLE 62 ASIA-PACIFIC LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022-2030 (USD MILLION) 103

TABLE 63 ASIA-PACIFIC LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022-2030 (USD MILLION) 104

TABLE 64 ASIA-PACIFIC LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022-2030 (USD MILLION) 105

TABLE 65 ASIA-PACIFIC LIQUID BIOPSY MARKET BY END USERS, 2022-2030 (USD MILLION) 106

TABLE 66 JAPAN LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022-2030 (USD MILLION) 107

TABLE 67 JAPAN LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022-2030 (USD MILLION) 108

TABLE 68 JAPAN LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022-2030 (USD MILLION) 109

TABLE 69 JAPAN LIQUID BIOPSY MARKET BY END USERS, 2022-2030 (USD MILLION) 110

TABLE 70 CHINA LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022-2030 (USD MILLION) 111

TABLE 71 CHINA LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022-2030 (USD MILLION) 112

TABLE 72 CHINA LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022-2030 (USD MILLION) 113

TABLE 73 CHINA LIQUID BIOPSY MARKET BY END USERS, 2022-2030 (USD MILLION) 114

TABLE 74 INDIA LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022-2030 (USD MILLION) 115

TABLE 75 INDIA LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022-2030 (USD MILLION) 116

TABLE 76 INDIA LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022-2030 (USD MILLION) 117

TABLE 77 INDIA LIQUID BIOPSY MARKET BY END USERS, 2022-2030 (USD MILLION) 118

TABLE 78 AUSTRALIA LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022-2030 (USD MILLION) 119

TABLE 79 AUSTRALIA LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022-2030 (USD MILLION) 120

TABLE 80 AUSTRALIA LIQUID BIOPSY MARKET BY END USERS, 2022-2030 (USD MILLION) 122

TABLE 81 REPUBLIC OF SOUTH KOREA LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022-2030 (USD MILLION) 123

TABLE 82 REPUBLIC OF SOUTH KOREA LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022-2030 (USD MILLION) 124

TABLE 83 REPUBLIC OF SOUTH KOREA LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022-2030 (USD MILLION) 125

TABLE 84 REPUBLIC OF SOUTH KOREA LIQUID BIOPSY MARKET BY END USERS, 2022-2030 (USD MILLION) 126

TABLE 85 REST OF ASIA-PACIFIC LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022-2030

(USD MILLION) 127

TABLE 86 REST OF ASIA-PACIFIC LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022-2030 (USD MILLION) 128

TABLE 87 REST OF ASIA-PACIFIC LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022-2030 (USD MILLION) 129

TABLE 88 REST OF ASIA-PACIFIC LIQUID BIOPSY MARKET BY END USERS, 2022-2030 (USD MILLION) 130

TABLE 89 MIDDLE EAST & AFRICA LIQUID BIOPSY MARKET BY COUNTRY, 2022-2030 (USD MILLION) 132

TABLE 90 MIDDLE EAST & AFRICA LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022-2030 (USD MILLION) 133

TABLE 91 MIDDLE EAST & AFRICA MARKET BY THERAPEUTIC APPLICATIONS, 2022-2030 (USD MILLION) 134

TABLE 92 MIDDLE EAST & AFRICA MARKET BY SAMPLE TYPE, 2022-2030 (USD MILLION) 135

TABLE 93 MIDDLE EAST & AFRICA MARKET BY END USERS, 2022-2030 (USD MILLION) 136

TABLE 94 UAE MARKET BY BIOMARKER TYPE, 2022-2030 (USD MILLION) 137

TABLE 95 UAE MARKET BY THERAPEUTIC APPLICATIONS, 2022-2030 (USD MILLION) 138

TABLE 96 UAE MARKET BY SAMPLE TYPE, 2022-2030 (USD MILLION) 139

TABLE 97 UAE MARKET BY END USERS, 2022-2030 (USD MILLION) 140

TABLE 98 SAUDI ARABIA MARKET BY BIOMARKER TYPE, 2022-2030 (USD MILLION) 141

TABLE 99 SAUDI ARABIA MARKET BY THERAPEUTIC APPLICATIONS, 2022-2030 (USD MILLION) 142

TABLE 100 SAUDI ARABIA MARKET BY SAMPLE TYPE, 2022-2030 (USD MILLION) 143

TABLE 101 SAUDI ARABIA MARKET BY END USERS, 2022-2030 (USD MILLION) 144

TABLE 102 EGYPT MARKET BY BIOMARKER TYPE, 2022-2030 (USD MILLION) 145

TABLE 103 EGYPT MARKET BY THERAPEUTIC APPLICATIONS, 2022-2030 (USD MILLION) 146

TABLE 104 EGYPT MARKET BY SAMPLE TYPE, 2022-2030 (USD MILLION) 147

TABLE 105 EGYPT MARKET BY END USERS, 2022-2030 (USD MILLION) 148

TABLE 106 REST OF MIDDLE EAST & AFRICA MARKET BY BIOMARKER TYPE, 2022-2030 (USD MILLION) 149

TABLE 107 REST OF MIDDLE EAST & AFRICA MARKET BY THERAPEUTIC APPLICATIONS, 2022-2030 (USD MILLION) 150

TABLE 108 REST OF MIDDLE EAST & AFRICA MARKET BY SAMPLE TYPE, 2022-2030 (USD MILLION) 151

TABLE 109 REST OF MIDDLE EAST & AFRICA MARKET BY END USERS, 2022-2030 (USD MILLION) 152

TABLE 110 GUARDANT HEALTH, INC: KEY DEVELOPMENTS 155

TABLE 111 TROVAGENE, INC CORPORATION: KEY DEVELOPMENTS 158

TABLE 112 RAINDANCE TECHNOLOGIES, INC. KEY DEVELOPMENTS 160

TABLE 113 AGENA BIOSCIENCE INC.: KEY DEVELOPMENTS 161

TABLE 114 ADMERA HEALTH: KEY DEVELOPMENTS 163

TABLE 115 BIOCEPT, INC.: KEY DEVELOPMENTS 165

TABLE 116 CIRCULOGENE THERANOSTICS: KEY DEVELOPMENTS 166

TABLE 117 INIVATA LTD: KEY DEVELOPMENTS 167

TABLE 118 TABLE 8: SAGA DIAGNOSTICS AB: KEY DEVELOPMENTS 168

TABLE 119 EXOSOME DIAGNOSTICSIS: KEY DEVELOPMENTS 169

13 List Of Figures

FIGURE 1 GLOBAL LIQUID BIOPSY: MARKET STRUCTURE	17
FIGURE 2 RESEARCH PROCESS OF MRFR	18
FIGURE 3 GLOBAL LIQUID BIOPSY: PORTER FIVE FORCES ANALYSIS	29
FIGURE 4 GLOBAL LIQUID BIOPSY MARKET, BY BIOMARKER TYPE, MARKET SHARE 2022 (%)	35
FIGURE 5 GLOBAL LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022 USD MILLION	35
FIGURE 6 CIRCULATING TUMOR CELLS (CTCS) MARKET, BY REGION, 2022, USD MILLION	37
FIGURE 7 CIRCULATING TUMOR DNA (CTDNA) MARKET, BY REGION, 2022, USD MILLION	38
FIGURE 8 EXTRACELLULAR VESICLES (EVS) MARKET, BY REGION, 2022 USD MILLION	39
FIGURE 9 OTHER BIOMARKER TYPE MARKET, BY REGION, 2022, (USD MILLION)	40
FIGURE 10 GLOBAL LIQUID BIOPSY MARKET, BY THERAPEUTIC APPLICATIONS, MARKET SHARE 2022 (%)	42
FIGURE 11 GLOBAL LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022, (USD MILLION)	43
FIGURE 12 CANCER THERAPEUTIC APPLICATION MARKET, BY REGION, 2022, (USD MILLION)	44
FIGURE 13 REPRODUCTIVE HEALTH THERAPEUTIC APPLICATION MARKET, BY REGION, 2022, (USD MILLION)	45
FIGURE 14 OTHER THERAPEUTIC APPLICATION MARKET, BY REGION, 2022, (USD MILLION)	46
FIGURE 15 GLOBAL LIQUID BIOPSY MARKET, BY SAMPLE, MARKET SHARE 2022 (%)	48
FIGURE 16 GLOBAL LIQUID BIOPSY MARKET BY SAMPLE, 2022, USD MILLION	48
FIGURE 17 BLOOD SAMPLE MARKET, BY REGION, 2022-2030 (USD MILLION)	49
FIGURE 18 URINE SAMPLE MARKET, BY REGION, 2022, USD MILLION	50
FIGURE 19 OTHER SAMPLE MARKET, BY REGION, 2022 (USD MILLION)	51
FIGURE 20 GLOBAL LIQUID BIOPSY MARKET, BY END USER, MARKET SHARE 2022 (%)	53
FIGURE 21 GLOBAL LIQUID BIOPSY MARKET BY END USER, 2022, USD MILLION	53
FIGURE 22 HOSPITALS AND LABORATORIES END USERS MARKET BY REGION, 2022, USD MILLION	54
FIGURE 23 ACADEMIC AND RESEARCH CENTERS END USERS MARKET, BY REGION, 2022, USD MILLION	55
FIGURE 24 OTHER END USERS MARKET, BY REGION, 2022, USD MILLION	56
FIGURE 25 GLOBAL LIQUID BIOPSY MARKET, BY REGION, MARKET SHARE 2022 (%)	58
FIGURE 26 GLOBAL LIQUID BIOPSY MARKET, BY REGION, 2022-2030 (USD MILLION)	58
FIGURE 27 NORTH AMERICA LIQUID BIOPSY MARKET, BY COUNTRY, MARKET SHARE 2022 (%)	59
FIGURE 28 NORTH AMERICA LIQUID BIOPSY MARKET, BY BIOMARKER TYPE, 2022 (USD MILLION)	60
FIGURE 29 NORTH AMERICA LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022 (USD MILLION)	61
FIGURE 30 NORTH AMERICA LIQUID BIOPSY MARKET, BY SAMPLE TYPE, 2022 (USD MILLION)	62
FIGURE 31 NORTH AMERICA LIQUID BIOPSY MARKET BY END USERS, 2022 (USD MILLION)	63
FIGURE 32 US LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022 (USD MILLION)	64
FIGURE 33 US LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022 (USD MILLION)	65
FIGURE 34 US LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022 (USD MILLION)	66
FIGURE 35 US LIQUID BIOPSY MARKET BY END USERS, 2022 (USD MILLION)	67

FIGURE 36 CANADA LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022 (USD MILLION) 68

FIGURE 37 CANADA LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022 (USD MILLION) 69

FIGURE 38 CANADA LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022 (USD MILLION) 70

FIGURE 39 CANADA LIQUID BIOPSY MARKET BY END USERS, 2022, (USD MILLION) 71

FIGURE 40 EUROPE LIQUID BIOPSY MARKET BY COUNTRY, MARKET SHARE 2022 (%) 72

FIGURE 41 EUROPE LIQUID BIOPSY MARKET BY COUNTRY, 2022 (USD MILLION) 73

FIGURE 42 EUROPE LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022 (USD MILLION) 74

FIGURE 43 EUROPE LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022 (USD MILLION) 75

FIGURE 44 EUROPE LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022 (USD MILLION) 76

FIGURE 45 EUROPE LIQUID BIOPSY MARKET BY END USERS, 2022 (USD MILLION) 77

FIGURE 46 GERMANY LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022 (USD MILLION) 78

FIGURE 47 GERMANY LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022 (USD MILLION) 79

FIGURE 48 GERMANY LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022 (USD MILLION) 80

FIGURE 49 GERMANY LIQUID BIOPSY MARKET BY END USERS, 2022 (USD MILLION) 81

FIGURE 50 FRANCE LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022 (USD MILLION) 82

FIGURE 51 FRANCE LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022 (USD MILLION) 83

FIGURE 52 FRANCE LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022 (USD MILLION) 84

FIGURE 53 FRANCE LIQUID BIOPSY MARKET BY END USERS, 2022 (USD MILLION) 85

FIGURE 54 UK LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022 (USD MILLION) 86

FIGURE 55 UK LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022 (USD MILLION) 87

FIGURE 56 UK LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022 (USD MILLION) 88

FIGURE 57 UK LIQUID BIOPSY MARKET BY END USERS, 2022 (USD MILLION) 89

FIGURE 58 ITALY LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022 (USD MILLION) 90

FIGURE 59 ITALY LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022 (USD MILLION) 91

FIGURE 60 ITALY LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022 (USD MILLION) 92

FIGURE 61 ITALY LIQUID BIOPSY MARKET BY END USERS, 2022 (USD MILLION) 93

FIGURE 62 SPAIN LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022 (USD MILLION) 94

FIGURE 63 SPAIN LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022 (USD MILLION) 95

FIGURE 64 SPAIN LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022 (USD MILLION) 96

FIGURE 65 SPAIN LIQUID BIOPSY MARKET BY END USERS, 2022 (USD MILLION) 97

FIGURE 66 REST OF EUROPE LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022 (USD MILLION) 98

FIGURE 67 REST OF EUROPE LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022 (USD MILLION) 99

FIGURE 68 REST OF EUROPE LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022 (USD MILLION) 100

FIGURE 69 REST OF EUROPE LIQUID BIOPSY MARKET BY END USERS, 2022 (USD MILLION) 101

FIGURE 70 ASIA-PACIFIC LIQUID BIOPSY MARKET BY COUNTRY, MARKET SHARE 2022 (%) 102

FIGURE 71 ASIA-PACIFIC LIQUID BIOPSY MARKET BY COUNTRY, 2022 (USD MILLION)	103
FIGURE 72 ASIA-PACIFIC LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022 (USD MILLION)	104
FIGURE 73 ASIA-PACIFIC LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022 (USD MILLION)	105
FIGURE 74 ASIA-PACIFIC LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022 (USD MILLION)	106
FIGURE 75 ASIA-PACIFIC LIQUID BIOPSY MARKET BY END USERS, 2022 (USD MILLION)	107
FIGURE 76 JAPAN LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022-2030 (USD MILLION)	108
FIGURE 77 JAPAN LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022 (USD MILLION)	109
FIGURE 78 JAPAN LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022 (USD MILLION)	110
FIGURE 79 JAPAN LIQUID BIOPSY MARKET BY END USERS, 2022 (USD MILLION)	111
FIGURE 80 CHINA LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022 (USD MILLION)	112
FIGURE 81 CHINA LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022 (USD MILLION)	113
FIGURE 82 CHINA LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022 (USD MILLION)	114
FIGURE 83 CHINA LIQUID BIOPSY MARKET BY END USERS, 2022 (USD MILLION)	115
FIGURE 84 INDIA LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022 (USD MILLION)	116
FIGURE 85 INDIA LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022 (USD MILLION)	117
FIGURE 86 INDIA LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022-2030 (USD MILLION)	118
FIGURE 87 INDIA LIQUID BIOPSY MARKET BY END USERS, 2022 (USD MILLION)	119
FIGURE 88 AUSTRALIA LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022 (USD MILLION)	120
FIGURE 89 AUSTRALIA LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022 (USD MILLION)	121
FIGURE 90 AUSTRALIA LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022-2030 (USD MILLION)	121
FIGURE 91 AUSTRALIA LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022 (USD MILLION)	122
FIGURE 92 AUSTRALIA LIQUID BIOPSY MARKET BY END USERS, 2022 (USD MILLION)	123
FIGURE 93 SOUTH KOREA LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022 (USD MILLION)	124
FIGURE 94 SOUTH KOREA LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022 (USD MILLION)	125
FIGURE 95 SOUTH KOREA LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022 (USD MILLION)	126
FIGURE 96 SOUTH KOREA LIQUID BIOPSY MARKET BY END USERS, 2022 (USD MILLION)	127
FIGURE 97 REST OF ASIA-PACIFIC LIQUID BIOPSY MARKET BY BIOMARKER TYPE, 2022 (USD MILLION)	128
FIGURE 98 REST OF ASIA-PACIFIC LIQUID BIOPSY MARKET BY THERAPEUTIC APPLICATIONS, 2022 (USD MILLION)	129
FIGURE 99 REST OF ASIA-PACIFIC LIQUID BIOPSY MARKET BY SAMPLE TYPE, 2022 (USD MILLION)	130
FIGURE 100 REST OF ASIA-PACIFIC LIQUID BIOPSY MARKET BY END USERS, 2022 (USD MILLION)	131
FIGURE 101 MIDDLE EAST & AFRICA LIQUID BIOPSY MARKET, MARKET SHARE BY COUNTRY, 2022 (%)	132
FIGURE 102 MIDDLE EAST & AFRICA MARKET BY COUNTRY, 2022 (USD MILLION)	133

FIGURE 103 MIDDLE EAST & AFRICA MARKET BY BIOMARKER TYPE, 2022 (USD MILLION) 134

FIGURE 104 MIDDLE EAST & AFRICA MARKET BY THERAPEUTIC APPLICATIONS, 2022 (USD MILLION) 135

FIGURE 105 MIDDLE EAST & AFRICA MARKET BY SAMPLE TYPE, 2022 (USD MILLION) 136

FIGURE 106 MIDDLE EAST & AFRICA MARKET BY END USERS, 2022 (USD MILLION) 137

FIGURE 107 UAE MARKET BY BIOMARKER TYPE, 2022 (USD MILLION) 138

FIGURE 108 UAE MARKET BY THERAPEUTIC APPLICATIONS, 2022 (USD MILLION) 139

FIGURE 109 UAE MARKET BY SAMPLE TYPE, 2022 (USD MILLION) 140

FIGURE 110 UAE MARKET BY END USERS, 2022 (USD MILLION) 141

FIGURE 111 SAUDI ARABIA MARKET BY BIOMARKER TYPE, 2022 (USD MILLION) 142

FIGURE 112 SAUDI ARABIA MARKET BY THERAPEUTIC APPLICATIONS, 2022 (USD MILLION) 143

FIGURE 113 SAUDI ARABIA MARKET BY SAMPLE TYPE, 2022 (USD MILLION) 144

FIGURE 114 SAUDI ARABIA MARKET BY END USERS, 2022 (USD MILLION) 145

FIGURE 115 EGYPT MARKET BY BIOMARKER TYPE, 2022 (USD MILLION) 146

FIGURE 116 EGYPT MARKET BY THERAPEUTIC APPLICATIONS, 2022 (USD MILLION) 147

FIGURE 117 EGYPT MARKET BY SAMPLE TYPE, 2022 (USD MILLION) 148

FIGURE 118 EGYPT MARKET BY END USERS, 2022 (USD MILLION) 149

FIGURE 119 REST OF MIDDLE EAST & AFRICA MARKET BY BIOMARKER TYPE, 2022 (USD MILLION) 150

FIGURE 120 REST OF MIDDLE EAST & AFRICA MARKET BY THERAPEUTIC APPLICATIONS, 2022 (USD MILLION) 151

FIGURE 121 REST OF MIDDLE EAST & AFRICA MARKET BY SAMPLE TYPE, 2022 (USD MILLION) 152

FIGURE 122 REST OF MIDDLE EAST & AFRICA MARKET BY END USERS, 2022 (USD MILLION) 153

FIGURE 123 GUARDANT HEALTH, INC: SWOT ANALYSIS 156

FIGURE 124 TROVAGENE, INC; RECENT FINANCIALS 157

FIGURE 125 TROVAGENE, INC CORPORATION: SWOT ANALYSIS 158

FIGURE 126 RAINDANCE: RECENT FINANCIAL 159

FIGURE 127 RAINDANCE TECHNOLOGIES: SWOT ANALYSIS 160

FIGURE 128 AGENA BIOSCIENCE INC.: SWOT ANALYSIS 162

FIGURE 129 ADMERA HEALTH: SWOT ANALYSIS 164