

Biologics Safety Testing Market by Product & Service (Consumables, Instrument, Services), Test Type (Mycoplasma, Sterility, Endotoxin, Bioburden, Virus Safety), Application (Vaccines, mAbs, Cell & Gene Therapy, Blood Products) - Global Forecast to 2029

Market Report | 2024-05-13 | 387 pages | MarketsandMarkets

AVAILABLE LICENSES:

- Single User \$4950.00
- Multi User \$6650.00
- Corporate License \$8150.00
- Enterprise Site License \$10000.00

Report description:

The biologics safety testing market is projected to reach USD 7.2 billion by 2029 from an estimated USD 4.2 billion in 2024, at a CAGR of 11.1% from 2024 to 2029. The growth of this market can be attributed to the increasing focus on the development and manufacturing of novel biologics. The rising demand for advanced therapies such as cell and gene therapies due to the growing rate of chronic diseases is propelling the growth of biologics safety testing. This trend is expected to drive the growth of the biologics safety testing market in the coming years.

"The monoclonal antibodies development and manufacturing segment accounted for the largest share of by application segment in 2023."

In 2023, the monoclonal antibodies development and manufacturing segment accounted for the largest share of the global biologics safety testing market by application. Growing investments and funding in the development of novel biotherapeutics and rising demand for biological therapies for the treatment of chronic diseases are promoting the segment's growth in the biologics safety testing market.

"The US has continued to dominate the biologics safety testing market from 2024 to 2029."

The US dominated the biologics safety testing market in North America in 2023. The US is the world's largest biopharmaceutical market and a leader in biopharmaceutical research/investments. Also, US has strong healthcare infrastructure which drives the research and development in life sciences sector. Additionally, US has large number of biopharmaceutical companies; thus, increasing number of biopharmaceutical companies and growing research activities in biotechnology sector are propelling the market growth in US. Moreover, increasing approvals for biosimilars are also driving the growth of biologics safety testing market.

Scotts International. EU Vat number: PL 6772247784 tel. 0048 603 394 346 e-mail: support@scotts-international.com

The primary interviews conducted for this report can be categorized as follows:

- -□By Respondent: Supply Side- 60% and Demand Side 40%
- By Designation: Managers 45%, CXO & Directors 30%, and Executives 25%
- -□By Region: North America 40%, Europe -25%, Asia-Pacific -25%, Latin America -5% and Middle East & Africa- 5%

List of Companies Profiled in the Report:

- Thermo Fisher Scientific Inc. (US)
- -□Merck KGaA (Germany)
- -∏Lonza (Switzerland)
- -□FUJIFILM Corporation (Japan)
- -□Sartorius AG (Germany)
- -□F. Hoffmann-La Roche Ltd (Switzerland)
- Charles River Laboratories (US)
- -□BIOMERIEUX (France)
- Maravai LifeSciences (US)
- -□WuXi AppTec (China)
- SGS Societe Generale de Surveillance SA. (Switzerland)
- -□Sotera Health (Nelson Laboratories, LLC) (US)
- Samsung Biologics (South Korea)
- -□GenScript (US)
- -∏Agilent Technologies, Inc. (US)
- -□Syngene International Limited (India)
- -□Eurofins Scientific (Luxembourg)
- Laboratory Corporation of America Holdings (US)
- -□Bio-Rad Laboratories, Inc. (US)
- -□QIAGEN (Netherlands)
- Promega Corporation (US)
- -□Catalent, Inc (US)
- -□ASSOCIATES OF CAPE COD, INC. (US)
- -□Clean Biologics (France)
- -∏PathoQuest (France)
- -□ARL Bio Pharma, Inc. (US)
- -□Frontage Labs (US)
- Creative Biogene (US)
- -□Advaxia Biologics (Italy)

Research Coverage:

This research report categorizes the biologics safety testing market by product & service (services (mycoplasma testing services, sterility testing services, endotoxin testing services, virus safety testing services, bioburden testing services, and other testing services), consumables, and instrument), test type (residual host-cell proteins & DNA detection tests, mycoplasma tests, sterility tests, endotoxin tests, virus safety tests, bioburden tests, other biologics safety tests), application (monoclonal antibodies development and manufacturing, vaccine development and manufacturing, cellular & gene therapy products development and manufacturing, other applications), end user (pharmaceutical & biotechnology companies, CROs and CDMOs, and academic & research institutes), and by region (North America, Europe, Asia

Scotts International, EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

Pacific, Latin America, Middle East, and Africa). The scope of the report covers detailed information regarding the major factors, such as drivers, restraints, challenges, and opportunities, influencing the growth of the biologics safety testing market. A thorough analysis of the key industry players has been done to provide insights into their business overview, products, services, solutions, key strategies, collaborations, partnerships, and agreements. Also, it includes new product launches, collaborations and acquisitions, and recent developments associated with the biologics safety testing market.

Key Benefits of Buying the Report:

The report will help market leaders/new entrants by providing the closest approximations of the revenue numbers for the overall biologics safety testing market and its subsegments. It will also help stakeholders better understand the competitive landscape and gain more insights to position their business better and make suitable go-to-market strategies. This report will enable stakeholders to understand the market's pulse and provide them with information on the key market drivers, restraints, opportunities, and challenges.

The report provides insights on the following pointers:

- Analysis of key drivers (growing development of mAbs and biosimilars, rising investments and fundings in biopharmaceutical industry, and stringent regulatory guidelines for biologics safety), restraints (ethical concern regarding animal testing), opportunities (growing opportunities in emerging economies, increasing focus on next generation therapeutics), and Challenges (high cost of biologics) influencing the growth of the market.
- Product Development/Innovation: Detailed insights on newly launched products of the biologics safety testing market
- Market Development: Comprehensive information about lucrative markets the report analyses the market across varied regions.
- Market Diversification: Exhaustive information about new products, untapped geographies, recent developments, and investments in the biologics safety testing market
- Competitive Assessment: Thermo Fisher Scientific Inc. (US), Merck KGaA (Germany), Lonza (Switzerland), FUJIFILM Corporation (Japan), Sartorius AG (Germany), F. Hoffmann-La Roche Ltd (Switzerland), Charles River Laboratories (US), BIOMERIEUX (France), Maravai LifeSciences (US), WuXi AppTec (China), SGS Societe Generale de Surveillance SA. (Switzerland), Sotera Health (Nelson Laboratories, LLC) (US), Samsung Biologics (South Korea), GenScript (US), Agilent Technologies, Inc. (US), Syngene International Limited (India), Eurofins Scientific (Luxembourg), Laboratory Corporation of America Holdings (US), Bio-Rad Laboratories, Inc. (US), QIAGEN (Netherlands), Promega Corporation (US), Catalent, Inc (US), ASSOCIATES OF CAPE COD, INC. (US), Pacific BioLabs (US), Clean Biologics (France), PathoQuest (France), ARL Bio Pharma, Inc. (US), Frontage Labs (US), Creative Biogene (US), Advaxia Biologics (Italy), among others in the market.

Table of Contents:

1 INTRODUCTION 52

- 1.1 STUDY OBJECTIVES 52
- 1.2⊓MARKET DEFINITION□52
- 1.2.1 INCLUSIONS & EXCLUSIONS 53
- 1.3 STUDY SCOPE 53
- 1.3.1 MARKET SEGMENTATION 54
- 1.3.2 REGIONS COVERED 54
- 1.4□YEARS CONSIDERED□55
- 1.5 CURRENCY CONSIDERED 55
- $1.6 \square STAKEHOLDERS \square 55$
- 1.7□LIMITATIONS□55
- 1.8 SUMMARY OF CHANGES 56
- 1.9∏RECESSION IMPACT∏58
- 2 RESEARCH METHODOLOGY 59
- 2.1 RESEARCH DATA 59

FIGURE 1 RESEARCH DESIGN 59

2.1.1 SECONDARY DATA 60

2.1.2 PRIMARY DATA 60

FIGURE 2 BIOLOGICS SAFETY TESTING MARKET: BREAKDOWN OF PRIMARIES 61

2.2 MARKET ESTIMATION METHODOLOGY 62

2.2.1 GLOBAL MARKET SIZE ESTIMATION (BOTTOM-UP APPROACH) 62

FIGURE 3∏BIOLOGICS SAFETY TESTING MARKET SIZE ESTIMATION (SUPPLY-SIDE ANALYSIS), 2023∏62

FIGURE 4
BIOLOGICS SAFETY TESTING MARKET SIZE ESTIMATION: APPROACH 1 (COMPANY REVENUE ANALYSIS-BASED ESTIMATION), 2023
63

FIGURE 5 REVENUE SHARE ANALYSIS: ILLUSTRATIVE EXAMPLE OF THERMO FISHER SCIENTIFIC INC. (2023) 64

2.2.2 INSIGHTS FROM PRIMARY EXPERTS 65

FIGURE 6 MARKET SIZE VALIDATION FROM PRIMARY SOURCES 65

2.2.3 SEGMENTAL MARKET ASSESSMENT (TOP-DOWN APPROACH) ☐65

FIGURE 7|| SEGMENTAL MARKET SIZE ESTIMATION METHODOLOGY: TOP-DOWN APPROACH|| 65

2.3 MARKET GROWTH RATE PROJECTIONS 66

FIGURE 8 BIOLOGICS SAFETY TESTING MARKET: CAGR PROJECTIONS 67

TABLE 1 | IMPACT ANALYSIS OF SUPPLY-SIDE AND DEMAND-SIDE FACTORS | 67

2.4 □ DATA TRIANGULATION □ 69

FIGURE 9 DATA TRIANGULATION METHODOLOGY 69

2.5 RESEARCH ASSUMPTIONS 70

2.6 RISK ANALYSIS 70

2.7 RECESSION IMPACT ANALYSIS 170

3 EXECUTIVE SUMMARY 72

FIGURE 10 BIOLOGICS SAFETY TESTING MARKET, BY PRODUCT & SERVICE, 2024 VS. 2029 (USD MILLION) 72

FIGURE 11∏BIOLOGICS SAFETY TESTING PRODUCTS MARKET, BY TEST TYPE, 2024 VS. 2029 (USD MILLION)∏73

FIGURE 12∏BIOLOGICS SAFETY TESTING MARKET, BY APPLICATION, 2024 VS. 2029 (USD MILLION)∏73

FIGURE 13∏BIOLOGICS SAFETY TESTING MARKET, BY END USER, 2024 VS. 2029 (USD MILLION)∏74

FIGURE 14 GEOGRAPHICAL SNAPSHOT OF BIOLOGICS SAFETY TESTING MARKET 75

4∏PREMIUM INSIGHTS∏76

4.1□BIOLOGICS SAFETY TESTING MARKET OVERVIEW□76

FIGURE 15 INCREASING DEVELOPMENT OF MONOCLONAL ANTIBODIES AND BIOSIMILARS TO SUPPORT MARKET GROWTH 176

4.2 □ NORTH AMERICA: BIOLOGICS SAFETY TESTING MARKET, BY PRODUCT & SERVICE AND COUNTRY (2023) □ 77

FIGURE 16 SERVICES SEGMENT ACCOUNTED FOR LARGEST SHARE IN 2023 77

4.3∏BIOLOGICS SAFETY TESTING MARKET SHARE, BY APPLICATION, 2023∏77

FIGURE 17 IMONOCLONAL ANTIBODIES SEGMENT ACCOUNTED FOR LARGEST MARKET SHARE IN 2023 IT 77

4.4 BIOLOGICS SAFETY TESTING MARKET SHARE, BY END USER, 2023 78

FIGURE 18∏PHARMACEUTICAL & BIOPHARMACEUTICAL COMPANIES SEGMENT DOMINATED MARKET IN 2023∏78

4.5□BIOLOGICS SAFETY TESTING MARKET: GEOGRAPHIC GROWTH OPPORTUNITIES□78

FIGURE 19 ASIA PACIFIC COUNTRIES TO REGISTER HIGHER GROWTH DURING FORECAST PERIOD 78

5 MARKET OVERVIEW 79

5.1□INTRODUCTION□79

5.2 MARKET DYNAMICS 179

FIGURE 20 BIOLOGICS SAFETY TESTING MARKET: DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES 79

TABLE 2 BIOLOGICS SAFETY TESTING MARKET: IMPACT ANALYSIS 80

5.2.1 □ DRIVERS □ 80

5.2.1.1 Development of mAbs and biosimilars 80

TABLE 3 LIST OF FDA-APPROVED BIOSIMILAR PRODUCTS, 2022-2024 81

FIGURE 21 NUMBER OF ANTIBODY THERAPEUTICS GRANTED A FIRST APPROVAL IN US OR EU, 2012-2023 81

5.2.1.2 Growing concerns over cell culture contamination 82

Scotts International, EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

5.2.1.3 \square Rising investments in biopharmaceutical R&D \square 82

FIGURE 22 WORLDWIDE TOTAL PHARMACEUTICAL R&D SPEND, 2014-2028 83

TABLE 4∏PHARMACEUTICAL R&D SPENDING, BY COMPANY, 2020 VS. 2026 (USD BILLION)∏83

5.2.1.4 ☐ Increasing demand for advanced therapy medicinal products (ATMPs) ☐ 84

TABLE 5□LIST OF APPROVED GENE THERAPIES, 2023-2024□84

5.2.1.5 Stringent regulatory requirements for biologics safety testing 84

5.2.2 RESTRAINTS 85

5.2.2.1 Ethical concerns related to animal testing 85

5.2.3 OPPORTUNITIES 85

5.2.3.1 Growth opportunities in emerging markets 85

5.2.3.2 | Increasing outsourcing of biopharmaceutical activities to CROs | 86

5.2.3.3 Rising focus on next-generation therapeutics 87

5.2.4 □ CHALLENGES □ 87

5.2.4.1 High cost of biologics 87

TABLE 6□PRICING OF ADVANCED THERAPIES□88

5.2.4.2 Challenges related to biologics complexity and heterogenicity 88

5.3 TECHNOLOGY ANALYSIS 88

5.3.1 KEY TECHNOLOGIES 88

5.3.1.1 Polymerase chain reaction (PCR) 88

TABLE 7 APPLICATIONS OF PCR IN BIOLOGICS SAFETY TESTING 89

5.3.1.2 Next-generation sequencing (NGS) 89

5.3.2 COMPLEMENTARY TECHNOLOGIES 90

5.3.2.1 Lab-on-a-chip (LOC) systems 90

5.3.2.2 High-content screening (HCS) 90

5.3.3 ADJACENT TECHNOLOGIES 90

5.3.3.1 Bioinformatics and computational biology 90

5.4 SUPPLY CHAIN ANALYSIS 91

FIGURE 23 BIOLOGICS SAFETY TESTING MARKET: SUPPLY CHAIN ANALYSIS 92

5.5 | VALUE CHAIN ANALYSIS | 92

FIGURE 24 BIOLOGICS SAFETY TESTING MARKET: VALUE CHAIN ANALYSIS 93

5.6 PRICING ANALYSIS 94

TABLE 8 | AVERAGE SELLING PRICE TREND OF KEY PLAYERS, BY PRODUCT | 94

TABLE 9∏AVERAGE SELLING PRICE OF BIOLOGICS SAFETY TESTING PRODUCTS, BY REGION∏95

5.7 ECOSYSTEM ANALYSIS 95

FIGURE 25 BIOLOGICS SAFETY TESTING MARKET: ECOSYSTEM ANALYSIS 96

5.7.1 RAW MATERIAL VENDORS IN BIOLOGICS SAFETY TESTING MARKET 97

TABLE 10 BIOLOGICS SAFETY TESTING MARKET: ROLE OF RAW MATERIAL VENDORS 97

5.7.2 PRODUCT VENDORS IN BIOLOGICS SAFETY TESTING MARKET 97

TABLE 11 \square BIOLOGICS SAFETY TESTING MARKET: ROLE OF PRODUCT VENDORS \square 97

5.7.3 SERVICE PROVIDERS IN BIOLOGICS SAFETY TESTING MARKET 97

TABLE 12 BIOLOGICS SAFETY TESTING MARKET: ROLE OF SERVICE PROVIDERS 98

5.7.4 END USERS IN BIOLOGICS SAFETY TESTING MARKET 98

TABLE 13 BIOLOGICS SAFETY TESTING MARKET: ROLE OF END USERS 98

5.7.5 REGULATORY BODIES GOVERNING BIOLOGICS SAFETY TESTING MARKET 98

TABLE 14 BIOLOGICS SAFETY TESTING MARKET: ROLE OF REGULATORY BODIES 99

5.8 TRENDS/DISRUPTIONS IMPACTING CUSTOMERS' BUSINESSES 99

FIGURE 26 TRENDS/DISRUPTIONS IMPACTING CUSTOMERS' BUSINESSES 99

Scotts International, EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

5.9 PATENT ANALYSIS 100

5.9.1 METHODOLOGY 100

5.9.2 PATENTS FILED, BY DOCUMENT TYPE, 2014-2024 100

TABLE 15 PATENTS FILED, 2014-2024 100

5.9.3 INNOVATION AND PATENT APPLICATIONS 100

FIGURE 27 TOTAL NUMBER OF PATENTS GRANTED, 2014-2024 101

5.9.4 TOP APPLICANTS 101

FIGURE 28 TOP TEN PLAYERS WITH HIGHEST NUMBER OF PATENT APPLICATIONS, 2014-2024 101

TABLE 16 TOP 20 PATENT OWNERS IN BIOLOGICS SAFETY TESTING MARKET, 2014-2024 102

TABLE 17 PATENTS IN BIOLOGICS SAFETY TESTING MARKET, 2024 103

5.10 KEY CONFERENCES & EVENTS 104

TABLE 18 BIOLOGICS SAFETY TESTING MARKET: KEY CONFERENCES & EVENTS, 2024-2025 104

5.11 REGULATORY LANDSCAPE 105

5.11.1 | INTRODUCTION | 105

5.11.2 REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS 106

TABLE 19⊓NORTH AMERICA: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS⊓106

TABLE 20∏EUROPE: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS∏106

TABLE 21∏ASIA PACIFIC: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS∏107

TABLE 22 REST OF THE WORLD: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS 108

5.11.3 REGULATORY SCENARIO 109

TABLE 23 BIOLOGICS SAFETY TESTING MARKET: REGULATORY GUIDELINES 109

5.12 PORTER'S FIVE FORCES ANALYSIS 111

FIGURE 29 BIOLOGICS SAFETY TESTING MARKET: PORTER'S FIVE ANALYSIS 112

TABLE 24 BIOLOGICS SAFETY TESTING MARKET: PORTER'S FIVE FORCES ANALYSIS 112

5.12.1 THREAT OF NEW ENTRANTS 113

5.12.2 THREAT OF SUBSTITUTES 113

5.12.3 BARGAINING POWER OF SUPPLIERS 113

5.12.4 BARGAINING POWER OF BUYERS 113

5.12.5 INTENSITY OF COMPETITIVE RIVALRY 113

5.13 KEY STAKEHOLDERS & BUYING CRITERIA 114

5.13.1 KEY STAKEHOLDERS IN BUYING PROCESS 114

FIGURE 30∏INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS OF BIOLOGICS SAFETY TESTING PRODUCTS∏114

5.13.2 | BUYING CRITERIA FOR BIOLOGICS SAFETY TESTING MARKET | 115

FIGURE 31 KEY BUYING CRITERIA FOR END USERS 115

TABLE 25 BUYING CRITERIA FOR BIOLOGICS SAFETY TESTING PRODUCTS & SERVICES, BY END USER 115

5.14 INVESTMENT/FUNDING SCENARIO 116

6 BIOLOGICS SAFETY TESTING MARKET, BY PRODUCT & SERVICE 117

6.1□INTRODUCTION□118

TABLE 26 BIOLOGICS SAFETY TESTING MARKET, BY PRODUCT & SERVICE, 2022-2029 (USD MILLION) 118 6.2 SERVICES 118

TABLE 27 BIOLOGICS SAFETY TESTING SERVICES MARKET, BY TYPE, 2022-2029 (USD MILLION) 119

TABLE 28 BIOLOGICS SAFETY TESTING SERVICES MARKET, BY REGION, 2022-2029 (USD MILLION) 119

TABLE 29 NORTH AMERICA: BIOLOGICS SAFETY TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 120

TABLE 30∏EUROPE: BIOLOGICS SAFETY TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION)∏120

TABLE 31∏ASIA PACIFIC: BIOLOGICS SAFETY TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION)∏121

TABLE 32 LATIN AMERICA: BIOLOGICS SAFETY TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 121

TABLE 33∏MIDDLE EAST: BIOLOGICS SAFETY TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION)∏121

Scotts International, EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

TABLE 34 GCC COUNTRIES: BIOLOGICS SAFETY TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 122 6.2.1 MYCOPLASMA TESTING SERVICES 122

6.2.1.1 | Increasing focus on development of biologics and biosimilars to support segmental growth | 122
TABLE 35 | MYCOPLASMA TESTING SERVICES MARKET, BY REGION, 2022-2029 (USD MILLION) | 122
TABLE 36 | NORTH AMERICA: MYCOPLASMA TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) | 123
TABLE 37 | EUROPE: MYCOPLASMA TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) | 123
TABLE 38 | ASIA PACIFIC: MYCOPLASMA TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) | 124
TABLE 39 | LATIN AMERICA: MYCOPLASMA TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) | 124
TABLE 40 | MIDDLE EAST: MYCOPLASMA TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) | 124
TABLE 41 | GCC COUNTRIES: MYCOPLASMA TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) | 125
6.2.2 | STERILITY TESTING SERVICES | 125

6.2.2.1 Rising focus on development of biologics and biosimilars to drive demand for sterility testing services 125 TABLE 42 STERILITY TESTING SERVICES MARKET, BY REGION, 2022-2029 (USD MILLION) 126 TABLE 43 NORTH AMERICA: STERILITY TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 126 TABLE 44 EUROPE: STERILITY TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 127 TABLE 45 ASIA PACIFIC: STERILITY TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 127 TABLE 46 ATIM AMERICA: STERILITY TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 127 TABLE 47 MIDDLE EAST: STERILITY TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 127 TABLE 48 GCC COUNTRIES: STERILITY TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 128 6.2.3 ENDOTOXIN TESTING SERVICES 128

6.2.3.1 Stringent regulatory requirements to drive market 128

TABLE 49 ENDOTOXIN TESTING SERVICES MARKET, BY REGION, 2022-2029 (USD MILLION) 128

TABLE 50 NORTH AMERICA: ENDOTOXIN TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 129

TABLE 51 EUROPE: ENDOTOXIN TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 129

TABLE 52 ASIA PACIFIC: ENDOTOXIN TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 130

TABLE 53 LATIN AMERICA: ENDOTOXIN TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 130

TABLE 54 MIDDLE EAST: ENDOTOXIN TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 130

TABLE 55 CC COUNTRIES: ENDOTOXIN TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 131

6.2.4 VIRUS SAFETY TESTING SERVICES 131

6.2.4.1 Rising focus on development of advanced therapies to drive growth 131

TABLE 56 NORTH AMERICA: VIRUS SAFETY TESTING SERVICES MARKET, BY REGION, 2022-2029 (USD MILLION) 132

TABLE 57 NORTH AMERICA: VIRUS SAFETY TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 132

TABLE 58 EUROPE: VIRUS SAFETY TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 132

TABLE 59 ASIA PACIFIC: VIRUS SAFETY TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 133

TABLE 60 MIDDLE EAST: VIRUS SAFETY TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 133

TABLE 62 CC COUNTRIES: VIRUS SAFETY TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 134

6.2.5.1 Growing adoption of advanced testing solutions for contamination risk mitigation to propel growth 134 TABLE 63 BIOBURDEN TESTING SERVICES MARKET, BY REGION, 2022-2029 (USD MILLION) 135 TABLE 64 NORTH AMERICA: BIOBURDEN TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 135 TABLE 65 EUROPE: BIOBURDEN TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 135 TABLE 66 ASIA PACIFIC: BIOBURDEN TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 136 TABLE 67 LATIN AMERICA: BIOBURDEN TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 136 TABLE 68 MIDDLE EAST: BIOBURDEN TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 136 TABLE 69 GCC COUNTRIES: BIOBURDEN TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 137 6.2.6 OTHER BIOLOGICS SAFETY TESTING SERVICES 137

Scotts International. EU Vat number: PL 6772247784

6.2.5 BIOBURDEN TESTING SERVICES 134

TABLE 70_OTHER BIOLOGICS SAFETY TESTING SERVICES MARKET, BY REGION, 2022-2029 (USD MILLION)_137

TABLE 71_NORTH AMERICA: OTHER BIOLOGICS SAFETY TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION)_138

TABLE 72_EUROPE: OTHER BIOLOGICS SAFETY TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION)_138

TABLE 73_ASIA PACIFIC: OTHER BIOLOGICS SAFETY TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION)_139

TABLE 74_LATIN AMERICA: OTHER BIOLOGICS SAFETY TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION)_139

TABLE 75_MIDDLE EAST: OTHER BIOLOGICS SAFETY TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION)_139

TABLE 76_GCC COUNTRIES: OTHER BIOLOGICS SAFETY TESTING SERVICES MARKET, BY COUNTRY, 2022-2029 (USD MILLION)_140

6.3_CONSUMABLES_140

6.3.1 | INCREASING DEMAND FOR HIGH-QUALITY ASSAYS AND REAGENTS TO DRIVE MARKET | 140

TABLE 77 | BIOLOGICS SAFETY TESTING CONSUMABLES MARKET, BY REGION, 2022-2029 (USD MILLION) | 141

TABLE 78 | NORTH AMERICA: BIOLOGICS SAFETY TESTING CONSUMABLES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) | 141

TABLE 79 | EUROPE: BIOLOGICS SAFETY TESTING CONSUMABLES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) | 142

TABLE 80 | ASIA PACIFIC: BIOLOGICS SAFETY TESTING CONSUMABLES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) | 142

TABLE 82 | MIDDLE FAST: BIOLOGICS SAFETY TESTING CONSUMABLES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) | 142

TABLE 81 LATIN AMERICA: BIOLOGICS SAFETY TESTING CONSUMABLES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 142
TABLE 82 MIDDLE EAST: BIOLOGICS SAFETY TESTING CONSUMABLES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 142
TABLE 83 GCC COUNTRIES: BIOLOGICS SAFETY TESTING CONSUMABLES MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 143
6.4 INSTRUMENTS 143

6.4.1 RISING ADOPTION OF ADVANCED TECHNOLOGIES TO SUPPORT MARKET GROWTH 143

TABLE 84 \square BIOLOGICS SAFETY TESTING INSTRUMENTS MARKET, BY REGION, 2022-2029 (USD MILLION) \square 144

TABLE 85 NORTH AMERICA: BIOLOGICS SAFETY TESTING INSTRUMENTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 144 TABLE 86 EUROPE: BIOLOGICS SAFETY TESTING INSTRUMENTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 145 TABLE 87 ASIA PACIFIC: BIOLOGICS SAFETY TESTING INSTRUMENTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 145 TABLE 88 AND AMERICA: BIOLOGICS SAFETY TESTING INSTRUMENTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 146 TABLE 89 MIDDLE EAST: BIOLOGICS SAFETY TESTING INSTRUMENTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 146 TABLE 90 CC COUNTRIES: BIOLOGICS SAFETY TESTING INSTRUMENTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 146 TIBIOLOGICS SAFETY TESTING PRODUCTS MARKET, BY TEST TYPE 147

7.1⊓INTRODUCTION⊓148

TABLE 91[BIOLOGICS SAFETY TESTING PRODUCTS MARKET, BY TEST TYPE, 2022-2029 (USD MILLION)[]148 7.2[RESIDUAL HOST CELL PROTEINS & DNA DETECTION TESTS[]148

7.2.1 STRINGENT REGULATORY GUIDELINES FOR BIOLOGIC DRUG MANUFACTURING TO PROPEL MARKET 148
TABLE 92 RESIDUAL HOST CELL PROTEINS & DNA DETECTION TESTS MARKET, BY REGION, 2022-2029 (USD MILLION) 149
TABLE 93 NORTH AMERICA: RESIDUAL HOST CELL PROTEINS & DNA DETECTION TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 149

TABLE 94[]EUROPE: RESIDUAL HOST CELL PROTEINS & DNA DETECTION TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION)[]150

TABLE 95

ASIA PACIFIC: RESIDUAL HOST CELL PROTEINS & DNA DETECTION TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION)

150

TABLE 96 LATIN AMERICA: RESIDUAL HOST CELL PROTEINS & DNA DETECTION TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 151

TABLE 97 MIDDLE EAST: RESIDUAL HOST CELL PROTEINS & DNA DETECTION TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 151

TABLE 98□GCC COUNTRIES: RESIDUAL HOST CELL PROTEINS & DNA DETECTION TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION)□151

7.3□MYCOPLASMA TESTS□152

7.3.1 RISING CONCERNS OF CELL CULTURE CONTAMINATION TO DRIVE MARKET 152

TABLE 99[MYCOPLASMA TESTS MARKET, BY REGION, 2022-2029 (USD MILLION)[152

TABLE 100 NORTH AMERICA: MYCOPLASMA TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 153

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

```
TABLE 101 EUROPE: MYCOPLASMA TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 153
TABLE 102 ASIA PACIFIC: MYCOPLASMA TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 153
```

TABLE 103 LATIN AMERICA: MYCOPLASMA TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 154

TABLE 104 MIDDLE EAST: MYCOPLASMA TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 154

TABLE 105 \square GCC COUNTRIES: MYCOPLASMA TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) \square 154

7.4[STERILITY TESTS[]155

7.4.1 COMPULSORY STERILITY TESTING AT EACH STAGE IN DRUG DEVELOPMENT AND PRODUCTION PROCESS TO SUPPORT SEGMENT GROWTH 155

TABLE 106 STERILITY TESTS MARKET, BY REGION, 2022-2029 (USD MILLION) 155

TABLE 107 NORTH AMERICA: STERILITY TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 156

TABLE 108∏EUROPE: STERILITY TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION)∏156

TABLE 109∏ASIA PACIFIC: STERILITY TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION)∏156

TABLE 110∏LATIN AMERICA: STERILITY TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION)∏157

TABLE 111 MIDDLE EAST: STERILITY TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 157

TABLE 112 GCC COUNTRIES: STERILITY TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 157 7.5 ENDOTOXIN TESTS 158

7.5.1 Increasing research and development for production of biologics to drive Market 158

TABLE 113 ENDOTOXIN TESTS MARKET, BY REGION, 2022-2029 (USD MILLION) 158

TABLE 114 NORTH AMERICA: ENDOTOXIN TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 159

TABLE 115∏EUROPE: ENDOTOXIN TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION)∏159

TABLE 116 ASIA PACIFIC: ENDOTOXIN TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 159

TABLE 117 LATIN AMERICA: ENDOTOXIN TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 160

TABLE 118 MIDDLE EAST: ENDOTOXIN TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 160

TABLE 119 \square GCC COUNTRIES: ENDOTOXIN TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) \square 160 7.6 \square VIRUS SAFETY TESTS \square 161

7.6.1 GROWING DEMAND FOR BIOLOGICS AND BIOSIMILARS TO DRIVE SEGMENT GROWTH ☐161

TABLE 120 VIRUS SAFETY TESTS MARKET, BY REGION, 2022-2029 (USD MILLION) 161

TABLE 121 NORTH AMERICA: VIRUS SAFETY TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 162

TABLE 122 EUROPE: VIRUS SAFETY TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 162

TABLE 123∏ASIA PACIFIC: VIRUS SAFETY TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION)∏162

TABLE 124 LATIN AMERICA: VIRUS SAFETY TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 163

TABLE 125∏MIDDLE EAST: VIRUS SAFETY TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION)∏163

TABLE 126 GCC COUNTRIES: VIRUS SAFETY TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 163 7.7 BIOBURDEN TESTS 164

7.7.1□GROWING STRINGENCY OF DRUG SAFETY STANDARDS TO INCREASE DEMAND FOR MICROBIOLOGICAL BIOBURDEN TESTING□164

TABLE 127 BIOBURDEN TESTS MARKET, BY REGION, 2022-2029 (USD MILLION) 164

TABLE 128 NORTH AMERICA: BIOBURDEN TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 165

TABLE 129∏EUROPE: BIOBURDEN TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION)∏165

TABLE 130 ASIA PACIFIC: BIOBURDEN TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 165

TABLE 131 □ LATIN AMERICA: BIOBURDEN TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) □ 166

TABLE 132 MIDDLE EAST: BIOBURDEN TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 166

TABLE 133□GCC COUNTRIES: BIOBURDEN TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION)□166 7.8□OTHER BIOLOGICS SAFETY TESTS□166

TABLE 134 OTHER BIOLOGICS SAFETY TESTS MARKET, BY REGION, 2022-2029 (USD MILLION) 167

TABLE 135 NORTH AMERICA: OTHER BIOLOGICS SAFETY TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 167

TABLE 136□EUROPE: OTHER BIOLOGICS SAFETY TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION)□168

Scotts International, EU Vat number: PL 6772247784

TABLE 137 ASIA PACIFIC: OTHER BIOLOGICS SAFETY TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 168

TABLE 138 LATIN AMERICA: OTHER BIOLOGICS SAFETY TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 169

TABLE 139∏MIDDLE EAST: OTHER BIOLOGICS SAFETY TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION)∏169

TABLE 140☐GCC COUNTRIES: OTHER BIOLOGICS SAFETY TESTS MARKET, BY COUNTRY, 2022-2029 (USD MILLION)☐169

 $0\$ BIOLOGICS SAFETY TESTING MARKET, BY APPLICATION 170

8.1⊓INTRODUCTION⊓171

TABLE 141 BIOLOGICS SAFETY TESTING MARKET, BY APPLICATION, 2022-2029 (USD MILLION) 171

 $8.2 \ | MONOCLONAL \ ANTIBODIES \ DEVELOPMENT \ AND \ MANUFACTURING \ 171$

8.2.1 GROWING REGULATORY APPROVALS FOR MONOCLONAL ANTIBODIES TO SUPPORT MARKET GROWTH ☐ 171

TABLE 142□BIOLOGICS SAFETY TESTING MARKET FOR MONOCLONAL ANTIBODIES DEVELOPMENT AND MANUFACTURING, BY REGION, 2022-2029 (USD MILLION)□172

TABLE 143□NORTH AMERICA: BIOLOGICS SAFETY TESTING MARKET FOR MONOCLONAL ANTIBODIES DEVELOPMENT AND MANUFACTURING, BY COUNTRY, 2022-2029 (USD MILLION)□172

TABLE 144 EUROPE: BIOLOGICS SAFETY TESTING MARKET FOR MONOCLONAL ANTIBODIES DEVELOPMENT AND MANUFACTURING, BY COUNTRY, 2022-2029 (USD MILLION) 173

TABLE 145

ASIA PACIFIC: BIOLOGICS SAFETY TESTING MARKET FOR MONOCLONAL ANTIBODIES DEVELOPMENT AND MANUFACTURING, BY COUNTRY, 2022-2029 (USD MILLION)

173

TABLE 146 LATIN AMERICA: BIOLOGICS SAFETY TESTING MARKET FOR MONOCLONAL ANTIBODIES DEVELOPMENT AND MANUFACTURING, BY COUNTRY, 2022-2029 (USD MILLION) 174

TABLE 147 MIDDLE EAST: BIOLOGICS SAFETY TESTING MARKET FOR MONOCLONAL ANTIBODIES DEVELOPMENT AND MANUFACTURING, BY REGION, 2022-2029 (USD MILLION) 174

TABLE 148 GCC: BIOLOGICS SAFETY TESTING MARKET FOR MONOCLONAL ANTIBODIES DEVELOPMENT AND MANUFACTURING, BY COUNTRY, 2022-2029 (USD MILLION) 174

8.3 □ VACCINES DEVELOPMENT AND MANUFACTURING □ 175

8.3.1 RISING PREVALENCE OF INFECTIOUS DISEASES TO DRIVE GROWTH 175

TABLE 149 BIOLOGICS SAFETY TESTING MARKET FOR VACCINES DEVELOPMENT AND MANUFACTURING, BY REGION, 2022-2029 (USD MILLION) 176

TABLE 150 NORTH AMERICA: BIOLOGICS SAFETY TESTING MARKET FOR VACCINES DEVELOPMENT AND MANUFACTURING, BY COUNTRY, 2022-2029 (USD MILLION) 176

TABLE 151 EUROPE: BIOLOGICS SAFETY TESTING MARKET FOR VACCINES DEVELOPMENT AND MANUFACTURING, BY COUNTRY, 2022-2029 (USD MILLION) 176

TABLE 152 ASIA PACIFIC: BIOLOGICS SAFETY TESTING MARKET FOR VACCINES DEVELOPMENT AND MANUFACTURING, BY COUNTRY. 2022-2029 (USD MILLION) 177

TABLE 153 LATIN AMERICA: BIOLOGICS SAFETY TESTING MARKET FOR VACCINES DEVELOPMENT AND MANUFACTURING, BY COUNTRY, 2022-2029 (USD MILLION) 177

TABLE 154 MIDDLE EAST: BIOLOGICS SAFETY TESTING MARKET FOR VACCINES DEVELOPMENT AND MANUFACTURING, BY REGION, 2022-2029 (USD MILLION) 177

TABLE 155 GCC: BIOLOGICS SAFETY TESTING MARKET FOR VACCINES DEVELOPMENT AND MANUFACTURING, BY COUNTRY, 2022-2029 (USD MILLION) 178

8.4 CELLULAR & GENE THERAPY PRODUCTS DEVELOPMENT AND MANUFACTURING 178

8.4.1 INCREASING INVESTMENTS FOR DEVELOPMENT OF CELLULAR & GENE THERAPIES TO DRIVE GROWTH 178

TABLE 156 BIOLOGICS SAFETY TESTING MARKET FOR CELLULAR & GENE THERAPY PRODUCTS DEVELOPMENT AND MANUFACTURING, BY REGION, 2022-2029 (USD MILLION) 179

TABLE 157 NORTH AMERICA: BIOLOGICS SAFETY TESTING MARKET FOR CELLULAR & GENE THERAPY PRODUCTS DEVELOPMENT AND MANUFACTURING, BY COUNTRY, 2022-2029 (USD MILLION) 179

TABLE 158 EUROPE: BIOLOGICS SAFETY TESTING MARKET FOR CELLULAR & GENE THERAPY PRODUCTS DEVELOPMENT AND MANUFACTURING, BY COUNTRY, 2022-2029 (USD MILLION) 180

Scotts International, EU Vat number: PL 6772247784

TABLE 159 ASIA PACIFIC: BIOLOGICS SAFETY TESTING MARKET FOR CELLULAR & GENE THERAPY PRODUCTS DEVELOPMENT AND MANUFACTURING, BY COUNTRY, 2022-2029 (USD MILLION) 180

TABLE 160 LATIN AMERICA: BIOLOGICS SAFETY TESTING MARKET FOR CELLULAR & GENE THERAPY PRODUCTS DEVELOPMENT AND MANUFACTURING, BY COUNTRY, 2022-2029 (USD MILLION) 181

TABLE 161 MIDDLE EAST: BIOLOGICS SAFETY TESTING MARKET FOR CELLULAR & GENE THERAPY PRODUCTS DEVELOPMENT AND MANUFACTURING, BY REGION, 2022-2029 (USD MILLION) 181

TABLE 162 GCC: BIOLOGICS SAFETY TESTING MARKET FOR CELLULAR & GENE THERAPY PRODUCTS DEVELOPMENT AND MANUFACTURING, BY COUNTRY, 2022-2029 (USD MILLION) 181

8.5 BLOOD & BLOOD PRODUCTS DEVELOPMENT AND MANUFACTURING 182

8.5.1 GROWING DEMAND FOR BLOOD PRODUCTS TO PROPEL GROWTH 182

TABLE 163□BIOLOGICS SAFETY TESTING MARKET FOR BLOOD & BLOOD PRODUCTS DEVELOPMENT AND MANUFACTURING, BY REGION, 2022-2029 (USD MILLION)□182

TABLE 164□NORTH AMERICA: BIOLOGICS SAFETY TESTING MARKET FOR BLOOD & BLOOD PRODUCTS DEVELOPMENT AND MANUFACTURING, BY COUNTRY, 2022-2029 (USD MILLION)□183

TABLE 165 EUROPE: BIOLOGICS SAFETY TESTING MARKET FOR BLOOD & BLOOD PRODUCTS DEVELOPMENT AND MANUFACTURING, BY COUNTRY, 2022-2029 (USD MILLION) 183

TABLE 166

ASIA PACIFIC: BIOLOGICS SAFETY TESTING MARKET FOR BLOOD & BLOOD PRODUCTS DEVELOPMENT AND MANUFACTURING, BY COUNTRY, 2022-2029 (USD MILLION)

184

TABLE 167□LATIN AMERICA: BIOLOGICS SAFETY TESTING MARKET FOR BLOOD & BLOOD PRODUCTS DEVELOPMENT AND MANUFACTURING, BY COUNTRY, 2022-2029 (USD MILLION)□184

TABLE 168 MIDDLE EAST: BIOLOGICS SAFETY TESTING MARKET FOR BLOOD & BLOOD PRODUCTS DEVELOPMENT AND MANUFACTURING, BY REGION, 2022-2029 (USD MILLION) 184

TABLE 169 GCC: BIOLOGICS SAFETY TESTING MARKET FOR BLOOD & BLOOD PRODUCTS DEVELOPMENT AND MANUFACTURING, BY COUNTRY, 2022-2029 (USD MILLION) 185

8.6 OTHER APPLICATIONS 185

TABLE 170 BIOLOGICS SAFETY TESTING MARKET FOR OTHER APPLICATIONS, BY REGION, 2022-2029 (USD MILLION) 186 TABLE 171 NORTH AMERICA: BIOLOGICS SAFETY TESTING MARKET FOR OTHER APPLICATIONS, BY COUNTRY, 2022-2029 (USD MILLION) 186

TABLE 172 EUROPE: BIOLOGICS SAFETY TESTING MARKET FOR OTHER APPLICATIONS, BY COUNTRY, 2022-2029 (USD MILLION) 186 TABLE 173 ASIA PACIFIC: BIOLOGICS SAFETY TESTING MARKET FOR OTHER APPLICATIONS, BY COUNTRY, 2022-2029 (USD MILLION) 187

TABLE 174 LATIN AMERICA: BIOLOGICS SAFETY TESTING MARKET FOR OTHER APPLICATIONS, BY COUNTRY, 2022-2029 (USD MILLION) 187

TABLE 175 MIDDLE EAST: BIOLOGICS SAFETY TESTING MARKET FOR OTHER APPLICATIONS, BY REGION, 2022-2029 (USD MILLION) 187

TABLE 176 GCC: BIOLOGICS SAFETY TESTING MARKET FOR OTHER APPLICATIONS, BY COUNTRY, 2022-2029 (USD MILLION) 188

9□BIOLOGICS SAFETY TESTING MARKET, BY END USER□189

9.1□INTRODUCTION□190

TABLE 177∏BIOLOGICS SAFETY TESTING MARKET, BY END USER, 2022-2029 (USD MILLION)∏190

9.2□PHARMACEUTICAL & BIOTECHNOLOGY COMPANIES□190

9.2.1□INCREASING PHARMACEUTICAL R&D SPENDING AND GROWING STRATEGIC ALLIANCES TO DRIVE GROWTH□190 FIGURE 32□GLOBAL PHARMACEUTICAL R&D SPENDING, 2014-2028 (USD BILLION)□191

TABLE 178 BIOLOGICS SAFETY TESTING MARKET FOR PHARMACEUTICAL & BIOTECHNOLOGY COMPANIES, BY REGION, 2022-2029 (USD MILLION) 191

TABLE 179 NORTH AMERICA: BIOLOGICS SAFETY TESTING MARKET FOR PHARMACEUTICAL & BIOTECHNOLOGY COMPANIES, BY COUNTRY, 2022-2029 (USD MILLION) 192

Scotts International, EU Vat number: PL 6772247784

TABLE 180 EUROPE: BIOLOGICS SAFETY TESTING MARKET FOR PHARMACEUTICAL & BIOTECHNOLOGY COMPANIES, BY COUNTRY, 2022-2029 (USD MILLION) 192

TABLE 181

ASIA PACIFIC: BIOLOGICS SAFETY TESTING MARKET FOR PHARMACEUTICAL & BIOTECHNOLOGY COMPANIES, BY COUNTRY, 2022-2029 (USD MILLION)

192

TABLE 182□LATIN AMERICA: BIOLOGICS SAFETY TESTING MARKET FOR PHARMACEUTICAL & BIOTECHNOLOGY COMPANIES, BY COUNTRY, 2022-2029 (USD MILLION)□193

TABLE 183□MIDDLE EAST: BIOLOGICS SAFETY TESTING MARKET FOR PHARMACEUTICAL & BIOTECHNOLOGY COMPANIES, BY REGION, 2022-2029 (USD MILLION)□193

TABLE 184 GCC: BIOLOGICS SAFETY TESTING MARKET FOR PHARMACEUTICAL & BIOTECHNOLOGY COMPANIES, BY COUNTRY, 2022-2029 (USD MILLION) 193

9.3 CROS & CDMOS 194

9.3.1∏INCREASING FOCUS ON EXPANSION OF CROS AND CDMOS TO PROPEL GROWTH∏194

TABLE 185 BIOLOGICS SAFETY TESTING MARKET FOR CROS & CDMOS, BY REGION, 2022-2029 (USD MILLION) 194
TABLE 186 NORTH AMERICA: BIOLOGICS SAFETY TESTING MARKET FOR CROS & CDMOS, BY COUNTRY, 2022-2029 (USD MILLION) 195

TABLE 187 EUROPE: BIOLOGICS SAFETY TESTING MARKET FOR CROS & CDMOS, BY COUNTRY, 2022-2029 (USD MILLION) 195
TABLE 188 ASIA PACIFIC: BIOLOGICS SAFETY TESTING MARKET FOR CROS & CDMOS, BY COUNTRY, 2022-2029 (USD MILLION) 196
TABLE 189 ASIA PACIFIC: BIOLOGICS SAFETY TESTING MARKET FOR CROS & CDMOS, BY COUNTRY, 2022-2029 (USD MILLION) 196

TABLE 190 MIDDLE EAST: BIOLOGICS SAFETY TESTING MARKET FOR CROS & CDMOS, BY REGION, 2022-2029 (USD MILLION) 196 TABLE 191 GCC: BIOLOGICS SAFETY TESTING MARKET FOR CROS & CDMOS, BY COUNTRY, 2022-2029 (USD MILLION) 197 9.4 ACADEMIC & RESEARCH INSTITUTES 197

9.4.1 Surge in R&D activities for development of advanced therapies to Boost Market Growth 197 table 192 Biologics safety testing Market for Academic & Research Institutes, By Region, 2022-2029 (USD MILLION) 198

TABLE 193 NORTH AMERICA: BIOLOGICS SAFETY TESTING MARKET FOR ACADEMIC & RESEARCH INSTITUTES, BY COUNTRY, 2022-2029 (USD MILLION) 198

TABLE 194□EUROPE: BIOLOGICS SAFETY TESTING MARKET FOR ACADEMIC & RESEARCH INSTITUTES, BY COUNTRY, 2022-2029 (USD MILLION)□198

TABLE 195□ASIA PACIFIC: BIOLOGICS SAFETY TESTING MARKET FOR ACADEMIC & RESEARCH INSTITUTES, BY COUNTRY, 2022-2029 (USD MILLION)□199

TABLE 196□LATIN AMERICA: BIOLOGICS SAFETY TESTING MARKET FOR ACADEMIC & RESEARCH INSTITUTES, BY COUNTRY, 2022-2029 (USD MILLION)□199

TABLE 197 MIDDLE EAST: BIOLOGICS SAFETY TESTING MARKET FOR ACADEMIC & RESEARCH INSTITUTES, BY REGION, 2022-2029 (USD MILLION) 199

TABLE 198 GCC: BIOLOGICS SAFETY TESTING MARKET FOR ACADEMIC & RESEARCH INSTITUTES, BY COUNTRY, 2022-2029 (USD MILLION) 200

10 BIOLOGICS SAFETY TESTING MARKET, BY REGION 201

10.1□INTRODUCTION□202

TABLE 199 BIOLOGICS SAFETY TESTING MARKET, BY REGION, 2022-2029 (USD MILLION) 202

10.2 NORTH AMERICA 202

FIGURE 33 NUMBER OF BIOSIMILARS APPROVED ANNUALLY BY US FDA, 2015 TO 2023 203

10.2.1 NORTH AMERICA: RECESSION IMPACT 203

FIGURE 34 NORTH AMERICA: BIOLOGICS SAFETY TESTING MARKET SNAPSHOT 204

TABLE 200 NORTH AMERICA: BIOLOGICS SAFETY TESTING MARKET, BY COUNTRY, 2022-2029 (USD MILLION) 204

TABLE 201 NORTH AMERICA: BIOLOGICS SAFETY TESTING MARKET, BY PRODUCT & SERVICE, 2022-2029 (USD MILLION) 205

TABLE 202 NORTH AMERICA: BIOLOGICS SAFETY TESTING SERVICES MARKET, BY TYPE, 2022-2029 (USD MILLION) 205

Scotts International, EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

TABLE 203 NORTH AMERICA: BIOLOGICS SAFETY TESTING PRODUCTS MARKET, BY TEST TYPE, 2022-2029 (USD MILLION) MARKET, BY APPLICATION, 2022-2029 (USD MILLION) MARKET, BY APPLICATION, 2022-2029 (USD MILLION) MARKET, BY END USER, 2022-2029 (USD MILLION)

10.2.2.1 Increasing investments in biotechnology industry to drive market growth 207

FIGURE 35 TOTAL US NIH BIOTECHNOLOGY FUNDING, FY 2013 TO FY 2024 208

TABLE 206 US: BIOLOGICS SAFETY TESTING MARKET, BY PRODUCT & SERVICE, 2022-2029 (USD MILLION) 208

TABLE 207 US: BIOLOGICS SAFETY TESTING SERVICES MARKET, BY TYPE, 2022-2029 (USD MILLION) 209

TABLE 208 US: BIOLOGICS SAFETY TESTING PRODUCTS MARKET, BY TEST TYPE, 2022-2029 (USD MILLION) 209

TABLE 209∏US: BIOLOGICS SAFETY TESTING MARKET, BY APPLICATION, 2022-2029 (USD MILLION)∏210

TABLE 210 US: BIOLOGICS SAFETY TESTING MARKET, BY END USER, 2022-2029 (USD MILLION) 210

10.2.3 | CANADA | 210

10.2.3.1 □Investments for expanding biomanufacturing capacity to propel market growth □210

TABLE 211□CANADA: BIOLOGICS SAFETY TESTING MARKET, BY PRODUCT & SERVICE, 2022-2029 (USD MILLION)□211

TABLE 212 CANADA: BIOLOGICS SAFETY TESTING SERVICES MARKET, BY TYPE, 2022-2029 (USD MILLION) 111

TABLE 213 \square CANADA: BIOLOGICS SAFETY TESTING PRODUCTS MARKET, BY TEST TYPE, 2022-2029 (USD MILLION) \square 212

TABLE 214 CANADA: BIOLOGICS SAFETY TESTING MARKET, BY APPLICATION, 2022-2029 (USD MILLION) 1212 TABLE 215 CANADA: BIOLOGICS SAFETY TESTING MARKET, BY END USER, 2022-2029 (USD MILLION) 1213

Scotts International. EU Vat number: PL 6772247784



To place an Order with Scotts International:

Complete the relevant blank fields and sign

☐ - Print this form

Biologics Safety Testing Market by Product & Service (Consumables, Instrument, Services), Test Type (Mycoplasma, Sterility, Endotoxin, Bioburden, Virus Safety), Application (Vaccines, mAbs, Cell & Gene Therapy, Blood Products) - Global Forecast to 2029

Market Report | 2024-05-13 | 387 pages | MarketsandMarkets

ORDER FORM:		
elect license	License	Price
	Single User	\$4950.00
	Multi User	\$6650.00
	Corporate License	\$8150.00
	Enterprise Site License	\$10000.00
	VAT Total	
	ant license option. For any questions please contact support@scotts-international.com or 0048 603 39 at 23% for Polish based companies, individuals and EU based companies who are unable to provide a	
** VAT will be added a		
	at 23% for Polish based companies, individuals and EU based companies who are unable to provide a	
** VAT will be added a mail* [rst Name*	Phone*	
** VAT will be added a	Phone*	

Scotts International. EU Vat number: PL 6772247784

Zip Code*	Country*	
	Date	2025-05-20
	Signature	