

# Bioconjugation Market by Product (Consumables, Instruments (Chromatography, Spectrometry)), Service (Conjugation, Analytical), Technique (Chemical, Click Chemistry), Biomolecule (Antibodies), Application (Therapeutics (ADC), R&D) - Global Forecast to 2029

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## Report description:

The bioconjugation market is expected to grow to USD 10.86 billion by 2029, up from USD 5.27 billion in 2024, at a CAGR of 15.6% between 2024 and 2029. Several key factors impact the growth of the bioconjugation market. The development of targeted therapeutics such as ADCs is expected to be greatly supported by bioconjugation, as the need for more accurate and potent cancer treatments grows. Furthermore, there is a growing focus on technological developments and outsourcing services. Furthermore, emerging countries provide significant development opportunities, and the expanding applications of bioconjugation are expected to drive the market further.

"The antibody conjugation segment accounted for the largest share of by conjugation type segment for the bioconjugation services market in 2023."

In 2023, the antibody conjugation segment accounted for the largest share of the global bioconjugation services market by conjugation type. The antibody conjugation segment dominates the bioconjugation services market because it is widely used in developing targeted treatments, particularly for cancer. Antibody-drug conjugates (ADCs) enable accurate drug delivery by targeting specific antigens on tumor cells, minimizing off-target effects and toxicity. The favourable results of ADCs in clinical trials, as well as their approval to treat a variety of malignancies, including HER2-positive breast cancer, have increased demand for antibody-based conjugation services.

"The antibodies segment accounted for the largest share of by biomolecule type segment for the bioconjugation products market in 2023."

In 2023, the antibodies segment accounted for the largest share of the global bioconjugation products market by biomolecule

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type. The most prominent biomolecule type in the bioconjugation products market is antibodies, especially monoclonal antibodies, which are dominantly used in the development of Antibody-Drug Conjugates (ADCs) with higher accuracy in targeting. Antibodies are integrally used in oncology and have led to several FDA-approved ADC therapies such as Adcetris and Kadcyla. These therapeutic antibodies conjugated with cytotoxic drugs through bioconjugation techniques allow for targeted treatment while minimizing systemic toxicity. Increasing clinical trials and FDA approvals for the drugs based on antibodies further drive the growth of this segment.

"In 2023, the US remained to dominate the bioconjugation market."

The US dominated the North American bioconjugation market in 2023. The US is the world's largest biopharmaceutical market and the leader in biopharmaceutical research and investment. The United States also has a strong healthcare infrastructure, which encourages research and development in the life sciences. Additionally, the significant presence of many biopharmaceutical companies and growing research activities in the biotechnology industry are propelling market growth in the US. Moreover, the growing prevalence of cancer is also driving the growth of the bioconjugation market.

In-depth interviews have been conducted with chief executive officers (CEOs), Directors, and other executives from various key organizations operating in the bioconjugation marketplace.

- By Respondent: Supply Side- 70% and Demand Side 30%
- 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%

Danaher Corporation (US); Lonza (Switzerland); Thermo Fisher Scientific Inc. (US); Merck KGaA (Germany); AbbVie Inc. (US); WuXi Biologics (Cayman) Inc. (China); Sartorius AG (Germany); are some of the key players in the bioconjugation market.

The study includes an in-depth competitive analysis of these key players in the bioconjugation market, with their company profiles, recent developments, and key market strategies

## Research Coverage:

This research report categorizes the bioconjugation market by product type (consumables { reagents and kits [linker and crosslinking reagents & kits, labeling reagents & kits, ∏modification reagents & kits, other reagents & kits], labels [fluorescent tags, enzymes, haptens, polymers, bead coupling, ∏other labels], other consumables}, instruments {chromatography systems, mass spectrometers, spectroscopy instruments, flow cytometers, electrophoresis equipment, filtration systems, mixers/shakers, incubators, nother instruments)), technique (chemical conjugation, click chemistry, enzyme-mediated conjugation, photoreactive crosslinking, ∏other techniques), biomolecule type (antibodies, peptides, proteins, oligonucleotides, ∏other biomolecules), application (therapeutics {antibody-drug conjugates (ADCs), peptide-drug conjugates, protein-drug conjugates, other therapeutic applications}, research & development, \( \prightarrow\) diagnostics), end user (pharmaceutical & biotechnology companies, CROs & CMOs, academic & research institutes, hospitals and clinical/diagnostic laboratories), service type (\( \preccent{Custom synthesis } & \) conjugation services, analytical & characterization services, scale-up & manufacturing services, ⊓other services), technique (chemical conjugation, click chemistry, enzyme-mediated conjugation, photoreactive crosslinking, other techniques), conjugation type (antibody conjugation, peptide conjugation, protein conjugation, oligonucleotide conjugation, other conjugation services), application (therapeutics, research & development, [diagnostics), end user (pharmaceutical & biotechnology companies, academic & research institutes, hospitals and clinical/diagnostic laboratories), and by region (North America, Europe, Asia 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 bioconjugation market. A thorough analysis of the key industry players has been done to provide insights into their business overview, products, key strategies, collaborations, partnerships, and agreements. Also, it includes new product launches, collaborations and acquisitions, and recent developments associated with the bioconjugation market.

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### Reasons to buy this report

The report will help market leaders/new entrants by providing the closest approximations of the revenue numbers for the overall bioconjugation 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 demand for targeted therapies, increasing investments in biopharmaceutical R&D, rising demand for outsourcing services, expanding pipeline of bioconjugated drugs, advancements in bioconjugation technologies), restraints (high cost of bioconjugate development & manufacturing, stringent regulatory requirements), opportunities (high growth potential of emerging economies, expanding applications of bioconjugation), and Challenges (technical complexities) influencing the growth of the market.
- Product/Service Development/Innovation: Detailed insights on newly launched products/services of the bioconjugation market
- Market Diversification: Exhaustive information about new products, untapped geographies, recent developments, and investments in the bioconjugation market
- Competitive Assessment: In-depth assessment of market shares, growth strategies and product/service offerings of leading players like Danaher Corporation (US), Lonza (Switzerland), Thermo Fisher Scientific Inc. (US), Merck KGaA (Germany), AbbVie Inc. (US), WuXi Biologics (Cayman) Inc. (China), Sartorius AG (Germany), Bio-Rad Laboratories, Inc. (US), among others in the market.

### **Table of Contents:**

- 1∏INTRODUCTION∏58
- 1.1 STUDY OBJECTIVES 58
- 1.2 MARKET DEFINITION 58
- 1.3 MARKET SCOPE 58
- 1.3.1 MARKETS COVERED 59
- 1.3.2 INCLUSIONS & EXCLUSIONS 60
- 1.3.3 YEARS CONSIDERED 61
- 1.3.4 CURRENCY CONSIDERED 61
- 1.4 MARKET STAKEHOLDERS 61
- 2 RESEARCH METHODOLOGY 62
- 2.1 RESEARCH DATA 62
- 2.1.1 SECONDARY DATA 63
- 2.1.2 PRIMARY DATA 63
- 2.2 MARKET ESTIMATION METHODOLOGY 65
- 2.2.1 MARKET ESTIMATION 65
- 2.2.2 INSIGHTS FROM PRIMARY EXPERTS 68
- 2.2.3 TOP-DOWN APPROACH 68
- 2.3 MARKET GROWTH RATE PROJECTION 170
- 2.4 □ DATA TRIANGULATION □ 72
- 2.5 RESEARCH ASSUMPTIONS 73
- 2.6□RESEARCH LIMITATIONS□74
- 2.7∏RISK ANALYSIS∏74
- 3∏EXECUTIVE SUMMARY∏75
- 4□PREMIUM INSIGHTS□83
- 4.1□BIOCONJUGATION MARKET OVERVIEW□83
- 4.2 NORTH AMERICA: BIOCONJUGATION PRODUCTS MARKET,

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```
BY APPLICATION AND COUNTRY (2023) □84
4.3 BIOCONJUGATION PRODUCTS MARKET, BY TYPE (2023) 84
4.4∏BIOCONJUGATION PRODUCTS MARKET, BY END USER (2023)∏85
4.5∏BIOCONJUGATION SERVICES MARKET, BY TYPE (2023)∏85
4.6 BIOCONJUGATION MARKET: GEOGRAPHIC GROWTH OPPORTUNITIES 86
5 MARKET OVERVIEW 87
5.1∏INTRODUCTION∏87
5.2 MARKET DYNAMICS 88
5.2.1 □ DRIVERS □ 89
5.2.1.1 Growing demand for targeted therapies 89
5.2.1.2 | Increasing investments in biopharmaceutical R&D | 90
5.2.1.3 Rising demand for outsourcing services 191
5.2.1.4 Expanding pipeline of bioconjugate drugs 92
5.2.1.5 Advancements in bioconjugation technologies 93
5.2.2 | RESTRAINTS | 94
5.2.2.1 High cost of bioconjugate development & manufacturing 94
5.2.2.2 Stringent regulatory requirements 95
5.2.3 OPPORTUNITIES 95
5.2.3.1 High growth potential of emerging economies 95
5.2.3.2 Expanding applications of bioconjugation 96
5.2.4 CHALLENGES 96
5.2.4.1 Technical complexities 96
5.3 TRENDS/DISRUPTIONS IMPACTING CUSTOMERS' BUSINESSES 97
5.4 PRICING ANALYSIS 98
5.4.1 | INDICATIVE PRODUCT PRICING ANALYSIS, BY KEY PLAYER | 98
5.4.2∏INDICATIVE PRODUCT PRICING ANALYSIS, BY REGION□99
5.5 SUPPLY CHAIN ANALYSIS 100
5.6 VALUE CHAIN ANALYSIS 102
5.7∏ECOSYSTEM ANALYSIS∏104
5.7.1 BIOCONJUGATION MARKET: RAW MATERIAL SUPPLIERS 104
5.7.2 BIOCONJUGATION MARKET: PRODUCT MANUFACTURERS 105
5.7.3 IBIOCONIUGATION MARKET: SERVICE PROVIDERS I 105
5.7.4 BIOCONJUGATION MARKET: END USERS 106
5.7.5 BIOCONJUGATION MARKET: REGULATORY BODIES 106
5.8 TECHNOLOGY ANALYSIS 107
5.8.1 KEY TECHNOLOGIES 107
5.8.1.1 Chemical conjugation 107
5.8.1.2 Enzymatic conjugation 108
5.8.1.3 Photochemical conjugation 109
5.8.1.4 Click chemistry 109
5.8.2 COMPLEMENTARY TECHNOLOGIES 109
5.8.3∏ADJACENT TECHNOLOGIES∏111
5.9 PATENT ANALYSIS 112
5.10 KEY CONFERENCES & EVENTS, 2025-2026 114
```

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5.11 REGULATORY ANALYSIS 115

```
5.11.1 ⊓ REGULATORY LANDSCAPE □ 115
5.11.1.1 North America 116
5.11.1.1.1 US 116
5.11.1.1.2 Canada 116
5.11.1.2 | Europe | 116
5.11.1.2.1 Germany 117
5.11.1.2.2∏UK∏117
5.11.1.3 Asia Pacific 117
5.11.1.3.1 [] Japan [] 117
5.11.1.3.2 | China | 117
5.11.1.4 Latin America 117
5.11.1.4.1 | Brazil | 117
5.11.2 ⊓REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS □118
5.12 INVESTMENT & FUNDING SCENARIO 121
5.13 PORTER'S FIVE FORCES ANALYSIS 122
5.13.1 □ THREAT OF NEW ENTRANTS □ 123
5.13.2 THREAT OF SUBSTITUTES 123
5.13.3 BARGAINING POWER OF BUYERS 124
5.13.4 BARGAINING POWER OF SUPPLIERS 124
5.13.5 | INTENSITY OF COMPETITIVE RIVALRY | 124
5.14 KEY STAKEHOLDERS AND BUYING CRITERIA 125
5.14.1 KEY STAKEHOLDERS IN BUYING PROCESS 125
5.14.2 BUYING CRITERIA FOR END USERS 126
5.15 TRADE ANALYSIS 128
5.16 IMPACT OF AI/GENERATIVE AI ON BIOCONJUGATION MARKET 131
6∏BIOCONJUGATION PRODUCTS MARKET, BY TYPE∏133
6.1⊓INTRODUCTION⊓134
6.2 CONSUMABLES 134
6.2.1 REAGENTS & KITS 138
6.2.1.1 Linker and crosslinking reagents & kits 141
6.2.1.1.1 Precision in conjugation reactions to boost demand 141
6.2.1.2 Labeling reagents & kits 144
6.2.1.2.1 Growing demand for enhanced diagnostic sensitivity to fuel uptake 144
6.2.1.3 Modification reagents & kits 147
6.2.1.3.1 □Uptake of protein engineering for optimal behavior to support market growth □147
6.2.1.4 Other reagents & kits 150
?
```

6.2.2□LABELS□153

6.2.2.1 Fluorescent tags 156

6.2.2.1.1 Rising demand in imaging & diagnostics to drive market 156

6.2.2.2∏Enzymes∏159

6.2.2.2.1 Increasing utilization of western blotting & ELISA kits to fuel market 159

6.2.2.3 | Haptens | 162

6.2.2.3.1 Wide applications in immunoassays and vaccine development to support market growth 162

6.2.2.4 Polymers 165

6.2.2.4.1 ☐ Advancements in polymer-based drug delivery systems to drive market ☐ 165

6.2.2.5 Bead coupling 168

# Scotts International, EU Vat number: PL 6772247784

- 6.2.2.5.1 Utilization in magnetic bead-based immunoassays and cell separation to support market growth 168
- 6.2.2.6 Other labels 171
- 6.2.3 OTHER CONSUMABLES 174
- 6.3□INSTRUMENTS□177
- 6.3.1 CHROMATOGRAPHY SYSTEMS 180
- 6.3.1.1 ☐ Ability to offer precision and purification to drive market ☐ 180
- 6.3.2 MASS SPECTROMETERS 183
- 6.3.2.1 High uptake in bioconjugate characterization to drive market 183
- 6.3.3 SPECTROSCOPY INSTRUMENTS 186
- 6.3.3.1 Monitoring of bioconjugation reactions in real-time to fuel uptake 186
- 6.3.4 FLOW CYTOMETERS 189
- 6.3.4.1 Determination of therapeutic potential in ADCs to propel market 189
- 6.3.5∏ELECTROPHORESIS EQUIPMENT∏192
- 6.3.5.1 Increasing requirement for reliable analysis to support market growth 192
- 6.3.6 FILTRATION SYSTEMS 195
- 6.3.6.1 ∏ High purity requirements to support market growth ☐ 195
- 6.3.7 MIXERS & SHAKERS 198
- 6.3.7.1 Ability to ensure uniform conjugation reactions to boost demand 198
- 6.3.8 INCUBATORS 200
- 6.3.8.1∏Integration of smart technologies for controlled environments to drive market 200
- 6.3.9 OTHER INSTRUMENTS 203

?

- 7∏BIOCONJUGATION PRODUCTS MARKET, BY TECHNIQUE∏206
- 7.1 INTRODUCTION 207
- 7.2□CHEMICAL CONJUGATION□207
- 7.2.1 HIGH DEMAND FOR ONCOLOGY ADCS AND VERSATILE TECHNIQUE TO PROPEL MARKET 207
- 7.3 □ CLICK CHEMISTRY □ 211
- 7.3.1∏GROWING NEED FOR REGULATORY COMPLIANCE AND QUALITY ASSURANCE TO PROPEL MARKET∏211
- 7.4 ENZYME-MEDIATED CONJUGATION 214
- 7.4.1 | INCREASING NUMBER OF CLINICAL TRIALS TO BOOST DEMAND | 214
- 7.5 PHOTOREACTIVE CROSSLINKING 217
- 7.5.1 DEVELOPMENT OF LIGHT-ACTIVATED THERAPEUTICS AND IMAGING AGENTS TO SUPPORT MARKET GROWTH 1217
- 7.6⊓OTHER TECHNIOUES□220
- 8 BIOCONJUGATION PRODUCTS MARKET, BY BIOMOLECULE TYPE 224
- 8.1□INTRODUCTION□225
- 8.2 ANTIBODIES 225
- 8.2.1 EXPANDING THERAPEUTIC APPLICATIONS TO SUPPORT MARKET GROWTH 225
- 8.3∏PEPTIDES∏228
- 8.3.1 HIGH FLEXIBILITY AND DRUG DELIVERY EFFICIENCY TO FUEL UPTAKE 228
- 8.4∏PROTEINS∏231
- 8.4.1□INCREASING DEVELOPMENT OF ELISA AND PDCS IN THERAPEUTIC APPLICATIONS TO DRIVE MARKET 231
- 8.5 OLIGONUCLEOTIDES 234
- 8.5.1 GROWING UPTAKE IN GENE THERAPY TO SUPPORT MARKET 234
- 8.6 OTHER BIOMOLECULES 237
- 9 BIOCONJUGATION PRODUCTS MARKET, BY APPLICATION 240
- 9.1□INTRODUCTION□241
- 9.2 THERAPEUTICS 241

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- 9.2.1 ANTIBODY-DRUG CONJUGATES 246
- 9.2.1.1 Increasing demand for targeted cancer therapies to propel market 246
- 9.2.2 PEPTIDE-DRUG CONJUGATES 249
- 9.2.2.1 Advancements in peptide synthesis to boost demand 249
- 9.2.3 PROTEIN-DRUG CONJUGATES 253
- 9.2.3.1 Improvements in bioavailability and pharmacokinetics of therapeutic agents to drive market 253
- 9.2.4 OTHER THERAPEUTIC APPLICATIONS 256
- 9.3 RESEARCH & DEVELOPMENT 259
- 9.3.1 Growing interest in innovative therapeutic modalities to drive Market 259

?

- 9.4∏DIAGNOSTICS∏262
- 9.4.1∏UTILIZATION IN DIAGNOSTIC ASSAY DEVELOPMENT TO SUPPORT MARKET GROWTH□262
- 10 BIOCONJUGATION PRODUCTS MARKET, BY END USER 266
- 10.1□INTRODUCTION□267
- 10.2 PHARMACEUTICAL & BIOTECHNOLOGY COMPANIES 267
- 10.2.1∏INCREASING ADOPTION OF BIOCONJUGATION IN TARGETED THERAPIES TO DRIVE MARKET∏267
- 10.3 CONTRACT RESEARCH ORGANIZATIONS (CROS) & CONTRACT MANUFACTURING ORGANIZATIONS (CMOS) 271
- 10.3.1 INCREASING OUTSOURCING OF BIOCONJUGATION SERVICES TO PROPEL MARKET 271
- 10.4 ACADEMIC & RESEARCH INSTITUTES 274
- 10.4.1∏INCREASING FOCUS ON NOVEL BIOCONJUGATION TECHNIQUES FOR BASIC & APPLIED RESEARCH TO FUEL UPTAKE ☐ 274
- 10.5 | HOSPITALS AND CLINICAL/DIAGNOSTIC LABORATORIES | 277
- 10.5.1 EXPANDING APPLICATIONS OF BIOCONJUGATES IN DIAGNOSTICS & THERAPEUTICS TO SUPPORT MARKET GROWTH 277
- 11∏BIOCONJUGATION SERVICES MARKET, BY TYPE∏281
- 11.1□INTRODUCTION□282
- 11.2 CUSTOM SYNTHESIS & CONJUGATION SERVICES 282
- 11.2.1 GROWING NEED FOR TARGETED & CUSTOMIZED THERAPIES TO DRIVE MARKET 282
- 11.3 ANALYTICAL & CHARACTERIZATION SERVICES 286
- 11.3.1 GROWING FOCUS ON REGULATORY COMPLIANCE TO FUEL UPTAKE 286
- 11.4 SCALE-UP & MANUFACTURING SERVICES 289
- 11.4.1∏INCREASING COMMERCIALIZATION OF BIOCONJUGATED DRUGS TO SUPPORT MARKET GROWTH∏289
- 11.5 OTHER SERVICES 292
- 12 BIOCONJUGATION SERVICES MARKET, BY CONJUGATION TYPE 295
- 12.1 INTRODUCTION I 296
- 12.2 ANTIBODY CONJUGATION 296
- 12.2.1 ☐ ABILITY TO LINK ANTIBODIES TO PAYLOADS FOR SPECIALIZED THERAPEUTICS TO PROPEL MARKET ☐ 296
- 12.3 PEPTIDE CONJUGATION 300
- 12.3.1 IMPROVED STABILITY & BIOAVAILABILITY TO DRIVE MARKET 300
- 12.4 PROTEIN CONJUGATION 303
- 12.4.1 LINKING PROTEINS WITH DRUGS FOR TARGETED DELIVERY TO FUEL UPTAKE ☐ 303
- 12.5 OLIGONUCLEOTIDE CONJUGATION 307
- 12.5.1 DAVANCEMENTS IN NUCLEIC ACID-BASED THERAPEUTICS TO SUPPORT MARKET GROWTH 307
- 12.6 OTHER CONJUGATION SERVICES 310
- 13∏BIOCONJUGATION SERVICES MARKET, BY TECHNIQUE∏314
- 13.1 INTRODUCTION 315
- 13.2 CHEMICAL CONJUGATION 315
- 13.2.1 ESSENTIAL TECHNIQUE FOR DEVELOPMENT OF CUSTOM BIOCONJUGATES TO FUEL UPTAKE 315
- 13.3 CLICK CHEMISTRY 319

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- 13.3.1 □ PROVISION OF HIGH YIELD FOR DEVELOPMENT OF COMPLEX BIOCONJUGATES TO PROPEL MARKET □ 319
- 13.4 ENZYME-MEDIATED CONJUGATION 322
- 13.4.1 NEED FOR PRECISE & STABLE CONJUGATES IN COMPLEX THERAPEUTIC MODALITIES TO DRIVE MARKET 322
- 13.5 PHOTOREACTIVE CROSSLINKING 325
- 13.5.1 ABILITY TO PROVIDE CONTROLLED & SITE-SPECIFIC FORMATION OF CROSSLINKS TO SUPPORT MARKET GROWTH 325
- 13.6 □OTHER TECHNIQUES □ 328
- 14 BIOCONJUGATION SERVICES MARKET, BY APPLICATION 331
- 14.1□INTRODUCTION□332
- 14.2 THERAPEUTICS 332
- 14.2.1 STRATEGIC PARTNERSHIPS BETWEEN BIOPHARMA COMPANIES AND BIOCONJUGATION SERVICE PROVIDERS TO PROPEL

### MARKET[]332

- 14.3 RESEARCH & DEVELOPMENT 336
- 14.3.1 ☐ GROWING FOCUS ON BIOMOLECULAR RESEARCH INNOVATION TO DRIVE MARKET ☐ 336
- 14.4□DIAGNOSTICS□339
- 14.4.1 DEVELOPMENT OF ADVANCED IMAGING TECHNOLOGIES AND BIOSENSORS TO SUPPORT MARKET GROWTH 339
- 15∏BIOCONJUGATION SERVICES MARKET, BY END USER∏343
- 15.1□INTRODUCTION□344
- 15.2 PHARMACEUTICAL & BIOTECHNOLOGY COMPANIES 344
- 15.2.1 ADVANCEMENTS IN DRUG DISCOVERY & DEVELOPMENT TO PROPEL MARKET 344
- 15.3 ☐ ACADEMIC & RESEARCH INSTITUTES ☐ 348
- 15.3.1 INNOVATION IN CONJUGATION TECHNIQUES AND BIOMEDICAL RESEARCH TO DRIVE MARKET 348
- 15.4 HOSPITALS AND CLINICAL/DIAGNOSTIC LABORATORIES 351
- 15.4.1∏INCREASING DEMAND FOR PRECISION DIAGNOSTICS TO FUEL UPTAKE∏351
- 16 BIOCONJUGATION MARKET, BY REGION 354
- 16.1 INTRODUCTION 355
- 16.2 NORTH AMERICA 356
- 16.2.1 MACROECONOMIC OUTLOOK OF NORTH AMERICA 365
- 16.2.2∏US∏365
- 16.2.2.1 High healthcare expenditure to propel market 365
- 16.2.3 | CANADA | | 372
- 16.2.3.1 Increasing government funding for drug development to support market growth 372
- 16.3 | EUROPE | 379
- 16.3.1 □ MACROECONOMIC OUTLOOK OF EUROPE□ 386
- 16.3.2 GERMANY 387
- 16.3.2.1 Facility expansion by key players to aid market growth 387
- 16.3.3∏UK∏394
- 16.3.3.1 Increased cancer prevalence and government funding for pharmaceutical & biotechnology research to fuel uptake 394
- 16.3.4 FRANCE 400
- 16.3.4.1 Favorable government initiatives and growing demand for personalized therapeutics to boost demand 400
- 16.3.5 | ITALY | 406
- 16.3.5.1 Increasing industrial collaborations for ADC production to support market growth 406
- 16.3.6 | SPAIN | 1412
- 16.3.6.1 Growing preference for personalized medicine to drive market 1412
- 16.3.7 REST OF EUROPE 418
- 16.4∏ASIA PACIFIC∏425
- 16.4.1 MACROECONOMIC OUTLOOK OF ASIA PACIFIC 433
- 16.4.2 CHINA 434

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16.4.2.1 Expansion of biopharmaceutical manufacturing facilities to boost demand 434

16.4.3 | JAPAN | 441

16.4.3.1∏Increasing collaborations among biotechnology companies to support market growth∏441

16.4.4∏INDIA∏448

16.4.4.1 ☐ High investments in pharma R&D and favorable government policies to boost demand ☐ 448

16.4.5 SOUTH KOREA 454

16.4.5.1 Increased focus on quality manufacturing practices to propel market ☐ 454

16.4.6 AUSTRALIA 461

16.4.6.1 Growing demand for innovative research solutions to drive market 461

16.4.7 REST OF ASIA PACIFIC 467

16.5 LATIN AMERICA 1474

16.5.1 MACROECONOMIC OUTLOOK OF LATIN AMERICA 1481

16.5.2 BRAZIL 482

16.5.2.1 Increasing pharmaceutical R&D to fuel market 482

16.5.3 MEXICO 489

16.5.3.1 High FDIs and reduced pharmaceutical manufacturing costs to drive market 489

16.5.4 REST OF LATIN AMERICA 495

?

16.6 MIDDLE EAST 502

16.6.1 MACROECONOMIC OUTLOOK OF MIDDLE EAST 509

16.6.2 GCC COUNTRIES 510

16.6.2.1 Kingdom of Saudi Arabia 517

16.6.2.1.1 Rising healthcare expenditure to boost market 517

16.6.2.2 United Arab Emirates 524

16.6.2.2.1 Increasing collaborations among biopharma companies to aid market growth 524

16.6.2.3 Other GCC Countries 530

16.6.3 REST OF MIDDLE EAST 537

16.7∏AFRICA∏544

16.7.1 INCREASING TARGET PATIENT POOL TO SUPPORT MARKET GROWTH 544

16.7.2∏MACROECONOMIC OUTLOOK OF AFRICA∏550

17 COMPETITIVE LANDSCAPE 552

17.1∏OVERVIEW∏552

17.2 KEY PLAYER STRATEGY/RIGHT TO WIN ☐552

17.2.1 OVERVIEW OF STRATEGIES ADOPTED BY PLAYERS IN BIOCONJUGATION MARKET 553

17.3 REVENUE ANALYSIS, 2019-2023 554

17.4 MARKET SHARE ANALYSIS, 2023 555

17.5 COMPANY EVALUATION MATRIX: KEY PLAYERS, 2023 557

17.5.1□STARS□557

17.5.2□EMERGING LEADERS□557

17.5.3 PERVASIVE PLAYERS 557

17.5.4 PARTICIPANTS 558

17.5.5 COMPANY FOOTPRINT: KEY PLAYERS, 2023 559

17.5.5.1 Company footprint 559

17.5.5.2 Product/Service footprint 560

17.5.5.3 Application footprint 561

17.5.5.4 End-user footprint 562

17.5.5.5 Region footprint 564

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17.6 COMPANY EVALUATION MATRIX: STARTUPS/SMES, 2023 565

17.6.1 PROGRESSIVE COMPANIES 565

17.6.2 RESPONSIVE COMPANIES 565

17.6.3 DYNAMIC COMPANIES 565

17.6.4□STARTING BLOCKS□566

17.6.5 COMPETITIVE BENCHMARKING: STARTUPS/SMES, 2023 567

17.7 COMPANY VALUATION & FINANCIAL METRICS 570

17.7.1 FINANCIAL METRICS 570

17.7.2 COMPANY VALUATION 570

?

17.8 BRAND/PRODUCT/SERVICE COMPARISON 571

17.9 COMPETITIVE SCENARIO 572

17.9.1 PRODUCT/SERVICE LAUNCHES 572

17.9.2 DEALS 573

17.9.3 EXPANSIONS 574

18 COMPANY PROFILES 576

18.1 KEY PLAYERS 576

18.1.1 DANAHER CORPORATION 576

18.1.1.1 Business overview 576

18.1.1.2 Products/Services offered 577

18.1.1.3 Recent developments 586

18.1.1.3.1 Product/Service launches 586

18.1.1.3.2 Deals 587

18.1.1.3.3 | Expansions | 587

18.1.1.4 MnM view 588

18.1.1.4.1 Key strengths 588

18.1.1.4.2 Strategic choices 588

18.1.1.4.3 Weaknesses & competitive threats 589

18.1.2 LONZA 590

18.1.2.1 Business overview 590

18.1.2.2 Products/Services offered 591

18.1.2.3 Recent developments 592

18.1.2.3.1 | Deals | 592

18.1.2.3.2 | Expansions | 593

18.1.2.4 MnM view 593

18.1.2.4.1 Key strengths 593

18.1.2.4.2

☐ Strategic choices

☐ 594

18.1.2.4.3 Weaknesses & competitive threats 594

18.1.3 THERMO FISHER SCIENTIFIC INC. 595

18.1.3.1 Business overview 595

18.1.3.2 Products/Services offered 596

18.1.3.3 Recent developments 602

18.1.3.3.1 Product/Service launches 602

18.1.3.3.2 Deals 603

18.1.3.3.3 | Expansions | 604

18.1.3.4 MnM view 605

18.1.3.4.1 Key strengths 605

# Scotts International. EU Vat number: PL 6772247784

- 18.1.3.4.2 Strategic choices 605
- 18.1.3.4.3 Weaknesses & competitive threats 605

?

- 18.1.4 MERCK KGAA 606
- 18.1.4.1 Business overview 606
- 18.1.4.2 Products/Services offered 607
- 18.1.4.3 Recent developments 611
- 18.1.4.3.1 Product/Service launches 611
- 18.1.4.3.2 Deals 612
- 18.1.4.3.3 | Expansions | | 612
- 18.1.4.4 | MnM view | 614
- 18.1.4.4.1 Key strengths 614
- 18.1.4.4.2 Strategic choices 614
- 18.1.4.4.3 Weaknesses & competitive threats 614
- 18.1.5 | ABBVIE INC. | | 615
- 18.1.5.1 Business overview 615
- 18.1.5.2 Products/Services offered 616
- 18.1.5.3 Recent developments 616
- 18.1.5.3.1 Deals 616
- 18.1.5.3.2 Expansions 617
- 18.1.5.4 MnM view 617
- 18.1.5.4.1 Key strengths 617
- 18.1.5.4.2 Strategic choices 617
- 18.1.5.4.3 Weaknesses & competitive threats 617
- 18.1.6 WUXI BIOLOGICS (CAYMAN) INC. 618
- 18.1.6.1 Business overview 618
- $18.1.6.2 \verb||Products/Services| offered \verb||| 619$
- 18.1.6.3 Recent developments 620
- 18.1.6.3.1 Deals 620
- 18.1.6.3.2 | Expansions | | | 622
- 18.1.7∏SARTORIUS AG∏623
- 18.1.7.1 Business overview 623
- 18.1.7.2 Products/Services offered 624
- 18.1.7.3 Recent developments 626
- $18.1.7.3.1 \verb|| Deals \verb||| 626$
- 18.1.7.3.2 Expansions 627
- 18.1.8 BIO-RAD LABORATORIES, INC. 628
- 18.1.8.1 Business overview 628
- $18.1.8.2 \verb||Products/Services| offered \verb||| 629$

?

- 18.1.9 CATALENT, INC. 633
- 18.1.9.1 Business overview 633
- 18.1.9.2 Products/Services offered 634
- 18.1.9.3 Recent developments 635
- 18.1.9.3.1 Product/Service launches 635
- $18.1.9.3.2 \verb|| Deals \verb||| 635$
- 18.1.9.3.3 Expansions 636

# Scotts International. EU Vat number: PL 6772247784

- 18.1.10 BECKTON, DICKINSON AND COMPANY 637
- 18.1.10.1 Business overview 637
- 18.1.10.2 Products/Services offered 638
- 18.1.10.3 Recent developments 640
- 18.1.10.3.1 Product/Service launches 640
- 18.1.10.3.2 | Deals | 640
- 18.1.11 AGILENT TECHNOLOGIES, INC. 641
- 18.1.11.1 Business overview 641
- 18.1.11.2 Products/Services offered 642
- 18.1.11.3 Recent developments 644
- 18.1.11.3.1 Product/Service launches 644
- 18.1.11.3.2 Deals 644
- 18.1.11.3.3 Expansions 646
- 18.1.12 PROMEGA CORPORATION 647
- 18.1.12.1 Business overview 647
- 18.1.12.2 Products/Services offered 647
- 18.1.13□F. HOFFMANN-LA ROCHE LTD. □648
- 18.1.13.1 Business overview 648
- 18.1.13.2 Products/Services offered 649
- 18.1.14 CHARLES RIVER LABORATORIES 651
- 18.1.14.1 Business overview 651
- 18.1.14.2 Products/Services offered 652
- 18.1.14.3 Recent developments 653
- 18.1.14.3.1 Deals 653
- 18.1.15 GENSCRIPT BIOTECH CORPORATION 654
- 18.1.15.1 Business overview 654
- 18.1.15.2 Products/Services offered 655
- 18.1.15.3 Recent developments 656
- 18.1.15.3.1Deals656
- 18.1.16 PIRAMAL PHARMA LIMITED 657
- 18.1.16.1 Business overview 657
- 18.1.16.2 Products/services offered 658
- 18.1.16.3 Recent developments 659
- 18.1.16.3.1 Product/Service launches 659
- 18.1.16.3.2 Expansions 659
- 18.2 OTHER PLAYERS 660
- 18.2.1 ABZENA LTD. 660
- 18.2.2 NEW ENGLAND BIOLABS 661
- 18.2.3 BIOSYNTH 662
- 18.2.4 CELL SIGNALING TECHNOLOGY, INC. 663
- 18.2.5 CREATIVE BIOLABS 664
- 18.2.6 FORMOSA LABORATORIES INC. 665
- 18.2.7 NJ BIO, INC. ∏666
- 18.2.8 ROCKLAND IMMUNOCHEMICALS, INC. 667
- 18.2.9 SHANGHAI CHEMPARTNER 668
- 18.2.10 $\square$ STERLING PHARMA SOLUTIONS LIMITED $\square$ 668
- 18.2.11 SYNGENE INTERNATIONAL LIMITED 669

Scotts International, EU Vat number: PL 6772247784

18.2.12 TOKYO CHEMICAL INDUSTRY CO., LTD. 670

18.2.13 VECTOR LABORATORIES, INC. 671

19∏APPENDIX∏672

19.1 DISCUSSION GUIDE 672

 $19.2 \verb|||KNOWLEDGESTORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL||678$ 

19.3 CUSTOMIZATION OPTIONS 680

19.4 RELATED REPORTS 681

19.5 AUTHOR DETAILS 682

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