

Recombinant Proteins Market by Product (Growth Factors, Chemokines, Structural Proteins, Membrane Proteins), Application (Drug Discovery & Development (Biologics, Vaccines, Cell & Gene Therapy), Research, Biopharma Production) & Region - Global Forecast to 2028

Market Report | 2024-02-05 | 408 pages | MarketsandMarkets

AVAILABLE LICENSES:

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

Report description:

The global recombinant proteins market size is projected to reach USD 3.2 billion by 2028 from USD 2.2 billion in 2023, at a CAGR of 7.2% during the forecast period. Factors such as rising demand for biologics & biosimilars due to patent expiry, increasing prevalence of chronic diseases, increased government support for life sciences research & development and growing preference for personalized medicine..

"The growth factors and chemokines segment segment held the dominant share in the recombinant proteins market"

Based on product, the global recombinant proteins market is segmented into growth factors and chemokines, kinase proteins, membrane proteins, immune response proteins, structural proteins, regulatory proteins, recombinant metabolic enzymes, adhesion molecules and receptors, and other recombinant proteins. The growth factors and chemokines segment is further segmented into interferons, interleukins and other growth factor & chemokines. The growth factors and chemokines segment is anticipated to grow at significant CAGR due to their application in cell culture, protein expression, and modulation of cellular responses.

"Drug discovery & development segment accounted for the largest share of the application segment in 2022."

Based on application, the recombinant proteins market is segmented into, drug discovery and development, biopharmaceutical production, research, diagnostics, and other applications. In 2022, the drug discovery and development segment accounted for the largest share of the recombinant proteins market. The segment held the largest share in the market due to application of recombinant proteins in developing biopharmaceuticals and understanding the functions of potential drug targets.

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

"Asia Pacific region is likely to grow at a faster pace in the recombinant proteins market."

The recombinant proteins market region is segmented into North America, Europe, Asia Pacific, Latin America, Middle East and the Africa. Asia Pacific region is anticipated to grow at a significant CAGR during the forecast period. The growth of the region is majorly driven by increasing demand for protein based drugs, rising government funding for recombinant proteins production and development of biotechnology-based drugs.

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

- By Respondent: Supply Side- 70%, and Demand Side 30%
- -- By Designation (Supply Side): Managers 45%, CXOs & Directors 30%, Executives 25%
- By Region: North America: 40%, Europe: 25%, Asia Pacific: 20%, Latin America: 10%, and the Middle East and Africa: 5% List of Companies Profiled in the Report:
- -□Bio-Techne (US)
- Thermo Fisher Scientific Inc. (US)
- Merck KGaA (Germany)
- -□Abcam plc (UK)
- -□Abnova Corporation (Taiwan)
- Biolegend Inc (US)
- -□Bio-Rad Laboratories Inc. (US)
- -∏BPS Bioscienc Inc (US)
- -□Enzo Biochem, Inc. (US)
- GenScript (China)
- Miltenyi Biotec B.V. & Co. KG (Germany)
- -□Proteintech Group, Inc. (US)
- -□Sino Biological Inc. (China)
- -□ACROBiosystems Group (US)
- -□Aviva Systems Biology Corporation (US)
- -□Sartorius CellGenix GmbH (Germany)
- Icosagen (Estonia)
- ¬Neuromics (US)
- ProSpec-Tany Technogene Ltd. (Israel)
- -□ProteoGenix S.A.S (France)
- -∏RayBiotech Inc (US)
- -∏Lauraus Bio (India)
- -□Stemcell Technologies (Canada)
- -∏StressMarq Biosciences Inc. (Canada)
- -□United States Biological (US)

Research Coverage:

This report provides a detailed picture of the recombinant proteins market. It aims at estimating the size and future growth potential of the market across different segments such as the product, application, end-user and region. The report also includes an in-depth competitive analysis of the key market players along with their company profiles recent developments and key market strategies.

Key Benefits of Buying the Report:

The report will help market leaders/new entrants by providing them with the closest approximations of the revenue numbers for the overall recombinant proteins market and its subsegments. It will also help stakeholders better understand the competitive landscape and gain more insights to better position their business and make suitable go-to-market strategies. This report will

Scotts International. EU Vat number: PL 6772247784

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 (rising incidence of chronic diseases, unleashing innovation in biologics and biosimilars with patent expiry, increasing government support for R&D in life sciences, growing preference for personalized medicine), restraints (high production costs, stringent regulatory approval processes), opportunities (advancements in gene editing technologies, high growth potential of emerging markets, emergence of novel expression systems) and challenges (challenges associated with delivery systems) are influencing the growth of recombinant proteins market.
- Product Development/Innovation: Detailed insights on newly launched products of the recombinant proteins market.
- Market Development: Comprehensive information about lucrative markets the report analyses the recombinant proteins market across varied regions.
- Market Diversification: Exhaustive information about new products, untapped geographies, recent developments, and investments in the recombinant proteins market.
- Competitive Assessment: In-depth assessment of market shares, growth strategies, and service offerings of leading players include Bio-Techne (US), Thermo Fisher Scientific Inc. (US), Merck KGaA (Germany), Abcam plc (UK), Abnova Corporation (Taiwan), Biolegend Inc (US), Bio-Rad Laboratories Inc. (US), BPS Bioscienc Inc (US), Enzo Biochem Inc. (US) and GenScript (China).

Table of Contents:

1∏INTRODUCTION∏33

- 1.1 STUDY OBJECTIVES 33
- 1.2 | MARKET DEFINITION | 33
- 1.2.1 INCLUSIONS AND EXCLUSIONS 33
- 1.3 MARKET SCOPE 34
- 1.3.1 MARKETS COVERED 34
- 1.3.2 YEARS CONSIDERED 35
- 1.3.3 CURRENCY CONSIDERED 35
- 1.4 RESEARCH LIMITATIONS 35
- 1.5□STAKEHOLDERS□36
- 1.6 SUMMARY OF CHANGES 36
- 1.7∏RECESSION IMPACT∏37
- 2 RESEARCH METHODOLOGY 38
- 2.1 RESEARCH DATA 38

FIGURE 1⊓RESEARCH DESIGN⊓38

- 2.1.1 SECONDARY DATA 39
- 2.1.2□PRIMARY DATA□40

FIGURE 2□RECOMBINANT PROTEINS MARKET: BREAKDOWN OF PRIMARIES□40

2.2 MARKET SIZE ESTIMATION 41

FIGURE 3 MARKET SIZE ESTIMATION: SUPPLY SIDE ANALYSIS (2022) 41

FIGURE 4 MARKET SIZE ESTIMATION: APPROACH 1 (REVENUE SHARE ANALYSIS), 2022 42

FIGURE 5 ILLUSTRATIVE EXAMPLE OF THERMO FISHER SCIENTIFIC INC.: REVENUE SHARE ANALYSIS (2022) 42

2.2.1 INSIGHTS FROM PRIMARIES 44

FIGURE 6 MARKET VALIDATION FROM PRIMARY EXPERTS 44

2.2.2 SEGMENT ASSESSMENT (BY PRODUCT, APPLICATION, HOST CELL, AND END USER) 44

FIGURE 7 MARKET SIZE ESTIMATION METHODOLOGY: TOP-DOWN APPROACH 44

2.3 GROWTH RATE ASSUMPTIONS 45

FIGURE 8 RECOMBINANT PROTEINS MARKET: CAGR PROJECTIONS (2023-2028) 46

FIGURE 9 PRECOMBINANT PROTEINS MARKET: GROWTH ANALYSIS OF DRIVERS, RESTRAINTS, CHALLENGES, AND OPPORTUNITIES 46

Scotts International, EU Vat number: PL 6772247784

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

www.scotts-international.com

2.4□MARKET BREAKDOWN AND DATA TRIANGULATION□47

FIGURE 10 DATA TRIANGULATION METHODOLOGY 47

2.5 STUDY ASSUMPTIONS 48

2.6 RISK ANALYSIS 48

2.7 RECESSION IMPACT ANALYSIS 48

TABLE 1 GLOBAL INFLATION RATE PROJECTIONS, 2024?2028 (% GROWTH) 49

TABLE 2 US HEALTH EXPENDITURE, 2019-2022 (USD MILLION) 49

TABLE 3□US HEALTH EXPENDITURE, 2023-2027 (USD MILLION)□49

3∏EXECUTIVE SUMMARY∏50

FIGURE 11 RECOMBINANT PROTEINS MARKET, BY PRODUCT, 2023 VS. 2028 (USD MILLION) 50

FIGURE 12 | RECOMBINANT PROTEINS MARKET, BY APPLICATION, 2023 VS. 2028 (USD MILLION) | | 51

FIGURE 13 ⊓RECOMBINANT PROTEINS MARKET FOR DRUG DISCOVERY & DEVELOPMENT, BY TYPE, 2023 VS. 2028 (USD MILLION) □51

FIGURE 14 RECOMBINANT PROTEINS MARKET FOR RESEARCH, BY TYPE, 2023 VS. 2028 (USD MILLION) 52

FIGURE 16 RECOMBINANT PROTEINS MARKET, BY END USER, 2023 VS. 2028 (USD MILLION) 54

FIGURE 17 GEOGRAPHICAL SNAPSHOT OF RECOMBINANT PROTEINS MARKET 55

4∏PREMIUM INSIGHTS∏56

4.1□RECOMBINANT PROTEINS MARKET OVERVIEW□56

FIGURE 18 INCREASING GOVERNMENT SUPPORT FOR R&D IN LIFE SCIENCES TO DRIVE MARKET 56

4.2 NORTH AMERICA: RECOMBINANT PROTEINS MARKET, BY PRODUCT (2022) □57

FIGURE 19 GROWTH FACTORS & CHEMOKINES SEGMENT ACCOUNTED FOR LARGEST MARKET SHARE IN 2022 57

4.3 RECOMBINANT PROTEINS MARKET, BY PRODUCT, 2023 VS. 2028 58

FIGURE 20 GROWTH FACTORS & CHEMOKINES SEGMENT TO DOMINATE MARKET DURING FORECAST PERIOD 58

4.4 RECOMBINANT PROTEINS MARKET: GEOGRAPHIC GROWTH OPPORTUNITIES 58

FIGURE 21∏ASIA PACIFIC COUNTRIES TO REGISTER HIGHEST GROWTH RATE DURING FORECAST PERIOD∏58

5∏MARKET OVERVIEW∏59

5.1∏INTRODUCTION∏59

5.2 MARKET DYNAMICS 59

FIGURE 22 RECOMBINANT PROTEINS MARKET: DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES 59

TABLE 4 PRECOMBINANT PROTEINS MARKET: IMPACT ANALYSIS OF DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES 60

5.2.1 DRIVERS 60

5.2.1.1 Rising incidence of chronic diseases 60

FIGURE 23 IN US (2017 - 2022) II 61

5.2.1.2 Increasing demand for biologics and biosimilars due to patent expiry 62

5.2.1.3 Increasing government support for R&D in life sciences 63

TABLE 5 GOVERNMENT FUNDING FOR LIFE SCIENCE RESEARCH (2022) 63

5.2.1.4 Growing preference for personalized medicine 64

5.2.2 RESTRAINTS 64

5.2.2.1 High production costs 64

 $5.2.2.2 \verb|| Stringent regulatory approval processes \verb||| 65$

5.2.3 OPPORTUNITIES 66

5.2.3.1 Advancements in gene editing technologies 66

5.2.3.2 High growth potential of emerging markets 67

5.2.3.3 Emergence of novel expression systems 68

5.2.4 CHALLENGES 69

5.2.4.1 Challenges associated with delivery systems 69

5.3 TRENDS/DISRUPTIONS IMPACTING CUSTOMERS' BUSINESSES 69

Scotts International, EU Vat number: PL 6772247784

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

www.scotts-international.com

FIGURE 24∏REVENUE SHIFTS AND NEW REVENUE POCKETS FOR RECOMBINANT PROTEIN MANUFACTURERS∏69

5.4 PRICING ANALYSIS 70

5.4.1∏AVERAGE SELLING PRICE OF PRODUCTS, BY KEY PLAYERS∏70

TABLE 6□RECOMBINANT PROTEIN PRODUCTS□70

5.4.2 AVERAGE SELLING PRICE TREND OF RECOMBINANT PROTEINS 74

5.5 TECHNOLOGY ANALYSIS 74

5.6 VALUE CHAIN ANALYSIS 75

FIGURE 25 VALUE CHAIN ANALYSIS: MANUFACTURING & ASSEMBLY PHASE CONTRIBUTES MAXIMUM VALUE TO VALUE CHAIN OF RECOMBINANT PROTEINS 76

5.7∏ECOSYSTEM MARKET/MAP∏77

FIGURE 26∏ECOSYSTEM MARKET/MAP∏77

TABLE 7 RECOMBINANT PROTEINS MARKET: ROLE IN ECOSYSTEM: 77

5.8 REGULATORY ANALYSIS 79

TABLE 8 KEY REGULATORY AGENCIES 79

5.8.1 | REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS | 81

TABLE 9∏NORTH AMERICA: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS∏81

TABLE 10 EUROPE: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS 82

TABLE 11 ASIA PACIFIC: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS 83

TABLE 12 LATIN AMERICA: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS 83

TABLE 13∏MIDDLE EAST: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS∏84

TABLE 14∏AFRICA: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS∏84

5.9 PORTER'S FIVE FORCES ANALYSIS 185

TABLE 15 RECOMBINANT PROTEINS MARKET: PORTER'S FIVE FORCES ANALYSIS 85

5.9.1 THREAT OF NEW ENTRANTS 85

5.9.2 THREAT OF SUBSTITUTES 85

5.9.3 BARGAINING POWER OF SUPPLIERS 86

5.9.4 BARGAINING POWER OF BUYERS 86

5.9.5 INTENSITY OF COMPETITIVE RIVALRY 186

5.10 PATENT ANALYSIS 87

FIGURE 27 PATENT APPLICATIONS FOR RECOMBINANT PROTEINS, DECEMBER 2013-DECEMBER 2023 87

TABLE 16 RECOMBINANT PROTEINS MARKET: INDICATIVE LIST OF PATENTS 87

5.11 KEY CONFERENCES AND EVENTS 89

TABLE 17 DETAILED LIST OF KEY CONFERENCES AND EVENTS (2023-2024) 189

5.12 KEY STAKEHOLDERS AND BUYING CRITERIA 90

5.12.1 KEY STAKEHOLDERS IN BUYING PROCESS 90

FIGURE 28∏INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS FOR RECOMBINANT PROTEINS∏90

5.12.2 BUYING CRITERIA FOR RECOMBINANT PROTEINS 91

FIGURE 29 KEY BUYING CRITERIA FOR END USERS 91

6 RECOMBINANT PROTEINS MARKET, BY PRODUCT 92

6.1∏INTRODUCTION∏93

TABLE 18∏RECOMBINANT PROTEINS MARKET, BY PRODUCT, 2021-2028 (USD MILLION)∏93

6.2 GROWTH FACTORS & CHEMOKINES 93

TABLE 19 RECOMBINANT PROTEINS MARKET FOR GROWTH FACTORS & CHEMOKINES, BY REGION, 2021-2028 (USD MILLION) 95
TABLE 20 RECOMBINANT PROTEINS MARKET FOR GROWTH FACTORS & CHEMOKINES, BY TYPE, 2021-2028 (USD MILLION) 55
TABLE 21 NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR GROWTH FACTORS & CHEMOKINES, BY COUNTRY, 2021-2028 (USD MILLION) 6

TABLE 22 EUROPE: RECOMBINANT PROTEINS MARKET FOR GROWTH FACTORS & CHEMOKINES, BY COUNTRY, 2021-2028 (USD

Scotts International, EU Vat number: PL 6772247784

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

www.scotts-international.com

MILLION)∏96

TABLE 23 ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR GROWTH FACTORS & CHEMOKINES, BY COUNTRY, 2021-2028 (USD MILLION) 7

TABLE 24 LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR GROWTH FACTORS & CHEMOKINES, BY COUNTRY, 2021-2028 (USD MILLION) | 97

TABLE 25□MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR GROWTH FACTORS & CHEMOKINES, COUNTRY, 2021-2028 (USD MILLION)□98

6.2.1∏INTERFERONS (IFNS)∏98

6.2.1.1 ☐ Ability to regulate critical cellular processes across research applications to propel market ☐ 98

TABLE 26 RECOMBINANT PROTEINS MARKET FOR INTERFERONS, BY REGION, 2021-2028 (USD MILLION) 99

TABLE 27 NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR INTERFERONS, BY COUNTRY, 2021-2028 (USD MILLION) □100

TABLE 28∏EUROPE: RECOMBINANT PROTEINS MARKET FOR INTERFERONS, BY COUNTRY, 2021-2028 (USD MILLION)∏100

TABLE 29 ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR INTERFERONS, BY COUNTRY, 2021-2028 (USD MILLION) 101

TABLE 30 LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR INTERFERONS, BY COUNTRY, 2021-2028 (USD MILLION) 101

TABLE 31 \square MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR INTERFERONS, BY COUNTRY, 2021-2028 (USD MILLION) \square 102

6.2.2 INTERLEUKINS (ILS) 102

TABLE 32□RECOMBINANT PROTEINS MARKET FOR INTERLEUKINS, BY REGION, 2021-2028 (USD MILLION)□103

TABLE 33 NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR INTERLEUKINS, BY COUNTRY, 2021-2028 (USD MILLION) 103

TABLE 34 EUROPE: RECOMBINANT PROTEINS MARKET FOR INTERLEUKINS, BY COUNTRY, 2021-2028 (USD MILLION) 104

TABLE 35 ASAI PACIFIC: RECOMBINANT PROTEINS MARKET FOR INTERLEUKINS, BY COUNTRY, 2021-2028 (USD MILLION) 104

TABLE 36 LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR INTERLEUKINS, BY COUNTRY, 2021-2028 (USD MILLION) 105

TABLE 37 MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR INTERLEUKINS, BY COUNTRY, 2021-2028 (USD MILLION) 105 6.2.3 OTHER GROWTH FACTORS & CHEMOKINES 105

TABLE 38 RECOMBINANT PROTEINS MARKET FOR OTHER GROWTH FACTORS & CHEMOKINES, BY REGION, 2021-2028 (USD MILLION) 106

TABLE 39□NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR OTHER GROWTH FACTORS & CHEMOKINES, BY COUNTRY, 2021-2028 (USD MILLION)□106

TABLE 40□EUROPE: RECOMBINANT PROTEINS MARKET FOR OTHER GROWTH FACTORS & CHEMOKINES, BY COUNTRY, 2021-2028 (USD MILLION)□107

TABLE 41□ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR OTHER GROWTH FACTORS & CHEMOKINES, BY COUNTRY, 2021-2028 (USD MILLION)□107

TABLE 42□LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR OTHER GROWTH FACTORS & CHEMOKINES, BY COUNTRY, 2021-2028 (USD MILLION)□108

TABLE 43☐MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR OTHER GROWTH FACTORS & CHEMOKINES, BY COUNTRY, 2021-2028 (USD MILLION)☐108

6.3∏IMMUNE RESPONSE PROTEINS∏109

6.3.1 HIGH UTILIZATION OF IMMUNE CHECKPOINT PROTEINS IN CANCER IMMUNOTHERAPY TO PROPEL MARKET 109

TABLE 44 RECOMBINANT PROTEINS MARKET FOR IMMUNE RESPONSE PROTEINS, BY REGION, 2021-2028 (USD MILLION) 109

TABLE 45 NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR IMMUNE RESPONSE PROTEINS, BY COUNTRY, 2021-2028 (USD MILLION) 110

TABLE 46□EUROPE: RECOMBINANT PROTEINS MARKET FOR IMMUNE RESPONSE PROTEINS, BY COUNTRY, 2021-2028 (USD MILLION)□110

TABLE 47□ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR IMMUNE RESPONSE PROTEINS, BY COUNTRY, 2021-2028 (USD MILLION)□111

TABLE 48 LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR IMMUNE RESPONSE PROTEINS, BY COUNTRY, 2021-2028 (USD MILLION) 111

Scotts International, EU Vat number: PL 6772247784

TABLE 49 MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR IMMUNE RESPONSE PROTEINS, BY COUNTRY, 2021-2028 (USD MILLION) 112

6.4□STRUCTURAL PROTEINS□112

6.4.1∏ATTACHMENT FACTORS IN CELL CULTURE APPLICATIONS TO DRIVE MARKET∏112

TABLE 50☐RECOMBINANT PROTEINS MARKET FOR STRUCTURAL PROTEINS, BY REGION, 2021-2028 (USD MILLION)☐113
TABLE 51☐NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR STRUCTURAL PROTEINS, BY COUNTRY, 2021-2028 (USD MILLION)☐114

TABLE 52 EUROPE: RECOMBINANT PROTEINS MARKET FOR STRUCTURAL PROTEINS, BY COUNTRY, 2021-2028 (USD MILLION) 114 TABLE 53 ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR STRUCTURAL PROTEINS, BY COUNTRY, 2021-2028 (USD MILLION) 115

TABLE 54 LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR STRUCTURAL PROTEINS, BY COUNTRY, 2021-2028 (USD MILLION) 15

TABLE 55□MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR STRUCTURAL PROTEINS, BY COUNTRY, 2021-2028 (USD MILLION)□116

6.5 MEMBRANE PROTEINS 116

MILLION)∏117

6.5.1□ESSENTIAL PROCESS REGULATION OF STRUCTURAL CELLS TO SUPPORT MARKET GROWTH□116

TABLE 56□RECOMBINANT PROTEINS MARKET FOR MEMBRANE PROTEINS, BY REGION, 2021-2028 (USD MILLION)□117

TABLE 57□NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR MEMBRANE PROTEINS, BY COUNTRY, 2021-2028 (USD

TABLE 58 EUROPE: RECOMBINANT PROTEINS MARKET FOR MEMBRANE PROTEINS, BY COUNTRY, 2021-2028 (USD MILLION) 118
TABLE 59 ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR MEMBRANE PROTEINS, BY COUNTRY, 2021-2028 (USD MILLION) 118
TABLE 60 AMERICA: RECOMBINANT PROTEINS MARKET FOR MEMBRANE PROTEINS, BY COUNTRY, 2021-2028 (USD MILLION) 119

TABLE 61☐MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR MEMBRANE PROTEINS, BY COUNTRY, 2021-2028 (USD MILLION)☐119

6.6 KINASE PROTEINS 119

6.6.1 | ACTIVE METABOLIZATION OF LIPIDS AND NUCLEOTIDES TO DRIVE MARKET | 119

TABLE 62 TABLE 63 NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR KINASE PROTEINS, BY REGION, 2021-2028 (USD MILLION) 120 TABLE 63 NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR KINASE PROTEINS, BY COUNTRY, 2021-2028 (USD MILLION) 121 TABLE 65 ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR KINASE PROTEINS, BY COUNTRY, 2021-2028 (USD MILLION) 121 TABLE 66 LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR KINASE PROTEINS, BY COUNTRY, 2021-2028 (USD MILLION) 122 TABLE 67 MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR KINASE PROTEINS, BY COUNTRY, 2021-2028 (USD MILLION) 122 6.7 REGULATORY PROTEINS 122

6.7.1 ABILITY TO MODULATE CELLULAR PROCESSES TO DRIVE MARKET 122

TABLE 68 RECOMBINANT PROTEINS MARKET FOR REGULATORY PROTEINS, BY REGION, 2021-2028 (USD MILLION) 123 TABLE 69 NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR REGULATORY PROTEINS, BY COUNTRY, 2021-2028 (USD MILLION) 123

TABLE 70 RECOMBINANT PROTEINS MARKET FOR REGULATORY PROTEINS IN EUROPE, BY COUNTRY, 2021-2028 (USD MILLION) 124
TABLE 71 EUROPE: RECOMBINANT PROTEINS MARKET FOR REGULATORY PROTEINS, BY COUNTRY, 2021-2028 (USD MILLION) 124
TABLE 72 LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR REGULATORY PROTEINS, BY COUNTRY, 2021-2028 (USD MILLION) 125

TABLE 73 MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR REGULATORY PROTEINS, BY COUNTRY, 2021-2028 (USD MILLION) 125

6.8 RECOMBINANT METABOLIC ENZYMES 126

6.8.1 HIGH ADOPTION IN BIOTECHNOLOGICAL APPLICATIONS FOR THERAPEUTIC DEVELOPMENT TO BOOST DEMAND 126
TABLE 74 RECOMBINANT PROTEINS MARKET FOR RECOMBINANT METABOLIC ENZYMES, BY REGION, 2021-2028 (USD MILLION) 126

Scotts International, EU Vat number: PL 6772247784

TABLE 75 NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR RECOMBINANT METABOLIC ENZYMES, BY COUNTRY, 2021-2028 (USD MILLION) 127

TABLE 76 EUROPE: RECOMBINANT PROTEINS MARKET FOR RECOMBINANT METABOLIC ENZYMES, BY COUNTRY, 2021-2028 (USD MILLION) 127

TABLE 77□ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR RECOMBINANT METABOLIC ENZYMES, BY COUNTRY, 2021-2028 (USD MILLION)□128

TABLE 78□LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR RECOMBINANT METABOLIC ENZYMES, BY COUNTRY, 2021-2028 (USD MILLION)□128

TABLE 79 MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR RECOMBINANT METABOLIC ENZYMES, BY COUNTRY, 2021-2028 (USD MILLION) 129

6.9∏ADHESION MOLECULES & RECEPTORS∏129

6.9.1 ENHANCED FACILITATION OF EXTRACELLULAR MATRIX INTERACTIONS TO SUPPORT MARKET GROWTH 129

TABLE 80☐RECOMBINANT PROTEINS MARKET FOR ADHESION MOLECULES & RECEPTORS, BY REGION, 2021-2028 (USD MILLION)☐130 TABLE 81☐NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR ADHESION MOLECULES & RECEPTORS, BY COUNTRY, 2021-2028 (USD MILLION)☐130

TABLE 82 EUROPE: RECOMBINANT PROTEINS MARKET FOR ADHESION MOLECULES & RECEPTORS, BY COUNTRY, 2021-2028 (USD MILLION) 131

TABLE 83□ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR ADHESION MOLECULES & RECEPTORS, BY COUNTRY, 2021-2028 (USD MILLION)□131

TABLE 84 LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR ADHESION MOLECULES & RECEPTORS, BY COUNTRY, 2021-2028 (USD MILLION) 132

TABLE 85☐MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR ADHESION MOLECULES & RECEPTORS, BY COUNTRY, 2021-2028 (USD MILLION)☐132

6.10 OTHER RECOMBINANT PROTEINS 132

TABLE 86 RECOMBINANT PROTEINS MARKET FOR OTHER RECOMBINANT PROTEINS, BY REGION, 2021-2028 (USD MILLION) 133 TABLE 87 NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR OTHER RECOMBINANT PROTEINS, BY COUNTRY, 2021-2028 (USD MILLION) 133

TABLE 88 EUROPE: RECOMBINANT PROTEINS MARKET FOR OTHER RECOMBINANT PROTEINS, BY COUNTRY, 2021-2028 (USD MILLION) 134

TABLE 89

ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR OTHER RECOMBINANT PROTEINS, BY COUNTRY, 2021-2028 (USD MILLION)

134

TABLE 90□LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR OTHER RECOMBINANT PROTEINS, BY COUNTRY, 2021-2028 (USD MILLION)□135

TABLE 91 MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR OTHER RECOMBINANT PROTEINS, BY COUNTRY, 2021-2028 (USD MILLION) 135

?

7□RECOMBINANT PROTEINS MARKET, BY APPLICATION□136

7.1□INTRODUCTION□137

TABLE 92 ⊓RECOMBINANT PROTEINS MARKET, BY APPLICATION, 2021-2028 (USD MILLION) □ 137

7.2 DRUG DISCOVERY & DEVELOPMENT 137

TABLE 93 RECOMBINANT PROTEINS MARKET FOR DRUG DISCOVERY & DEVELOPMENT, BY TYPE, 2021-2028 (USD MILLION) 138
TABLE 94 RECOMBINANT PROTEINS MARKET FOR DRUG DISCOVERY & DEVELOPMENT, BY REGION, 2021-2028 (USD MILLION) 138
TABLE 95 NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR DRUG DISCOVERY & DEVELOPMENT, BY COUNTRY, 2021-2028
(USD MILLION) 139

TABLE 96 EUROPE: RECOMBINANT PROTEINS MARKET FOR DRUG DISCOVERY & DEVELOPMENT, BY COUNTRY, 2021-2028 (USD MILLION) 139

TABLE 97 ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR DRUG DISCOVERY & DEVELOPMENT, BY COUNTRY, 2021-2028

Scotts International, EU Vat number: PL 6772247784

(USD MILLION)∏140

TABLE 98□LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR DRUG DISCOVERY & DEVELOPMENT, BY COUNTRY, 2021-2028 (USD MILLION)□140

TABLE 99 \square MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR DRUG DISCOVERY & DEVELOPMENT, BY COUNTRY, 2021-2028 (USD MILLION) \square 141

7.2.1∏BIOLOGICS∏141

7.2.1.1 ☐ High adoption in autoimmune disease & cancer treatment to propel market ☐ 141

TABLE 100 RECOMBINANT PROTEINS MARKET: KEY BIOLOGICS AND INDICATIONS 141

TABLE 101 RECOMBINANT PROTEINS MARKET FOR BIOLOGICS, BY REGION, 2021-2028 (USD MILLION) 142

TABLE 102∏NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR BIOLOGICS, BY COUNTRY, 2021-2028 (USD MILLION)∏142

TABLE 103∏EUROPE: RECOMBINANT PROTEINS MARKET FOR BIOLOGICS, BY COUNTRY, 2021-2028 (USD MILLION)∏143

TABLE 104∏ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR BIOLOGICS, BY COUNTRY, 2021-2028 (USD MILLION)∏143

TABLE 105 \square LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR BIOLOGICS, BY COUNTRY, 2021-2028 (USD MILLION) \square 144

TABLE 106 MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR BIOLOGICS, BY COUNTRY, 2021-2028 (USD MILLION) 144 7.2.2 VACCINES 144

7.2.2.1 Rising incidence of infectious diseases to boost demand 144

TABLE 107 RECOMBINANT PROTEINS MARKET FOR VACCINES, BY REGION, 2021-2028 (USD MILLION) 145

TABLE 108 NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR VACCINES, BY COUNTRY, 2021-2028 (USD MILLION) 145

TABLE 109 EUROPE: RECOMBINANT PROTEINS MARKET FOR VACCINES, BY COUNTRY, 2021-2028 (USD MILLION) 146

TABLE 110 ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR VACCINES, BY COUNTRY, 2021-2028 (USD MILLION) 146

TABLE 111 LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR VACCINES, BY COUNTRY, 2021-2028 (USD MILLION) 147

TABLE 112 MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR VACCINES, BY COUNTRY, 2021-2028 (USD MILLION) 147 7.2.3 CELL & GENE THERAPY 147

7.2.3.1 Growing focus on CAR-T therapies to propel market 147

TABLE 113□RECOMBINANT PROTEINS MARKET FOR CELL & GENE THERAPY, BY REGION, 2021-2028 (USD MILLION)□148
TABLE 114□NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR CELL & GENE THERAPY, BY COUNTRY, 2021-2028 (USD

TABLE 114 NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR CELL & GENE THERAPY, BY COUNTRY, 2021-2028 (USD MILLION) 149

TABLE 115 EUROPE: RECOMBINANT PROTEINS MARKET FOR CELL & GENE THERAPY, BY COUNTRY, 2021-2028 (USD MILLION) 149 TABLE 116 ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR CELL & GENE THERAPY, BY COUNTRY, 2021-2028 (USD

MILLION)□150

TABLE 117 LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR CELL & GENE THERAPY, BY COUNTRY, 2021-2028 (USD MILLION) 150

TABLE 118 MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR CELL & GENE THERAPY, BY COUNTRY, 2021-2028 (USD MILLION) 151

7.3 RESEARCH 151

TABLE 119∏RECOMBINANT PROTEINS MARKET FOR RESEARCH, BY TYPE, 2021-2028 (USD MILLION)∏152

TABLE 120 RECOMBINANT PROTEINS MARKET FOR RESEARCH, BY REGION, 2021-2028 USD MILLION 152

TABLE 121 NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR RESEARCH, BY COUNTRY, 2021-2028 (USD MILLION) 152

TABLE 122 EUROPE: RECOMBINANT PROTEINS MARKET FOR RESEARCH, BY COUNTRY, 2021-2028 (USD MILLION) 153

TABLE 123 ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR RESEARCH, BY COUNTRY, 2021-2028 (USD MILLION) 153

TABLE 124∏LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR RESEARCH, BY COUNTRY, 2021-2028 (USD MILLION)∏154

TABLE 125 MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR RESEARCH, BY COUNTRY, 2021-2028 (USD MILLION) 154 7.3.1 ACADEMIC RESEARCH 154

7.3.1.1 Wide application in molecular & gene expression studies to propel market 154

TABLE 126 RECOMBINANT PROTEINS MARKET FOR ACADEMIC RESEARCH STUDIES, BY REGION, 2021-2028 (USD MILLION) 155 TABLE 127 NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR ACADEMIC RESEARCH, BY COUNTRY, 2021-2028 (USD MILLION) 155

Scotts International, EU Vat number: PL 6772247784

TABLE 128 EUROPE: RECOMBINANT PROTEINS MARKET FOR ACADEMIC RESEARCH STUDIES, BY COUNTRY, 2021-2028 (USD MILLION) 156

TABLE 129 ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR ACADEMIC RESEARCH, BY COUNTRY, 2021-2028 (USD MILLION) 156

TABLE 130 LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR ACADEMIC RESEARCH, BY COUNTRY, 2021-2028 (USD MILLION) 157

TABLE 131 MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR ACADEMIC RESEARCH, BY COUNTRY, 2021-2028 (USD MILLION) 157

7.3.2 BIOTECHNOLOGY RESEARCH 157

7.3.2.1 Growing focus on bioengineering and genomics to fuel market 157

TABLE 132 RECOMBINANT PROTEINS MARKET FOR BIOTECHNOLOGY RESEARCH, BY REGION, 2021-2028 (USD MILLION) 158
TABLE 133 NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR BIOTECHNOLOGY RESEARCH, BY COUNTRY, 2021-2028 (USD MILLION) 159

TABLE 134 EUROPE: RECOMBINANT PROTEINS MARKET FOR BIOTECHNOLOGY RESEARCH, BY COUNTRY, 2021-2028 (USD MILLION) 159

TABLE 135 ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR BIOTECHNOLOGY RESEARCH, BY COUNTRY, 2021-2028 (USD MILLION) 160

TABLE 136 LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR BIOTECHNOLOGY RESEARCH, BY COUNTRY, 2021-2028 (USD MILLION) 160

TABLE 137 MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR BIOTECHNOLOGY RESEARCH, BY COUNTRY, 2021-2028 (USD MILLION) 161

7.4 BIOPHARMACEUTICAL PRODUCTION 161

7.4.1 □INCREASING DEVELOPMENT OF PROTEIN-BASED DRUGS TO SUPPORT MARKET GROWTH □161

TABLE 138 TECOMBINANT PROTEINS MARKET FOR BIOPHARMACEUTICAL PRODUCTION, BY REGION, 2021-2028 (USD MILLION) 162
TABLE 139 NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR BIOPHARMACEUTICAL PRODUCTION, BY COUNTRY, 2021-2028
(USD MILLION) 162

TABLE 140 EUROPE: RECOMBINANT PROTEINS MARKET FOR BIOPHARMACEUTICAL PRODUCTION, BY COUNTRY, 2021-2028 (USD MILLION) 163

TABLE 141□ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR BIOPHARMACEUTICAL PRODUCTION, BY COUNTRY, 2021-2028 (USD MILLION)□163

TABLE 142□LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR BIOPHARMACEUTICAL PRODUCTION, BY COUNTRY, 2021-2028 (USD MILLION)□164

TABLE 143 MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR BIOPHARMACEUTICAL PRODUCTION, BY COUNTRY, 2021-2028 (USD MILLION) 164

7.5 DIAGNOSTICS 164

7.5.1 GROWING FOCUS ON EARLY DISEASE DETECTION TO DRIVE MARKET 164

TABLE 144 RECOMBINANT PROTEINS MARKET FOR DIAGNOSTICS, BY REGION, 2021-2028 (USD MILLION) 165

TABLE 145 NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR DIAGNOSTICS, BY COUNTRY, 2021-2028 (USD MILLION) 165

TABLE 146∏EUROPE: RECOMBINANT PROTEINS MARKET FOR DIAGNOSTICS, BY COUNTRY, 2021-2028 (USD MILLION)∏166

TABLE 147∏ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR DIAGNOSTICS, BY COUNTRY, 2021-2028 (USD MILLION)∏166

TABLE 148 □ LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR DIAGNOSTICS, BY COUNTRY, 2021-2028 (USD MILLION) □ 167

TABLE 149 MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR DIAGNOSTICS, BY COUNTRY, 2021-2028 (USD MILLION) 167 7.6 OTHER APPLICATIONS 167

TABLE 150 RECOMBINANT PROTEINS MARKET FOR OTHER APPLICATIONS, BY REGION, 2021-2028 (USD MILLION) 168
TABLE 151 NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR OTHER APPLICATIONS, BY COUNTRY, 2021-2028 (USD MILLION) 168

TABLE 152 EUROPE: RECOMBINANT PROTEINS MARKET FOR OTHER APPLICATIONS, BY COUNTRY, 2021-2028 (USD MILLION) 169

Scotts International, EU Vat number: PL 6772247784

TABLE 153[ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR OTHER APPLICATIONS, BY COUNTRY, 2021-2028 (USD MILLION)[169]

TABLE 154 LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR OTHER APPLICATIONS, BY COUNTRY, 2021-2028 (USD MILLION) 170

TABLE 155 MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR OTHER APPLICATIONS, BY COUNTRY, 2021-2028 (USD MILLION) 170

8 RECOMBINANT PROTEINS MARKET, BY HOST CELL 171

8.1∏INTRODUCTION∏172

TABLE 156 RECOMBINANT PROTEINS MARKET, BY HOST CELL, 2021-2028 (USD MILLION) 172

8.2∏MAMMALIAN SYSTEMS∏172

8.2.1 ☐ HIGH UPTAKE IN BIOTECHNOLOGY APPLICATIONS TO PROPEL MARKET ☐ 172

TABLE 157□RECOMBINANT PROTEINS MARKET FOR MAMMALIAN SYSTEMS, BY REGION, 2021-2028 (USD MILLION)□173
TABLE 158□NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR MAMMALIAN SYSTEMS, BY COUNTRY, 2021-2028 (USD MILLION)□173

TABLE 159 EUROPE: RECOMBINANT PROTEINS MARKET FOR MAMMALIAN SYSTEMS, BY COUNTRY, 2021-2028 (USD MILLION) 174
TABLE 160 ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR MAMMALIAN SYSTEMS, BY COUNTRY, 2021-2028 (USD MILLION) 174

TABLE 161 LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR MAMMALIAN SYSTEMS, BY COUNTRY, 2021-2028 (USD MILLION) 175

TABLE 162□MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR MAMMALIAN SYSTEMS, BY COUNTRY, 2021-2028 (USD MILLION)□175

8.3∏INSECT CELLS∏175

8.3.1 COST-EFFICIENT AND HIGH-YIELD CHARACTERISTICS TO DRIVE MARKET 175

TABLE 163 ⊓RECOMBINANT PROTEINS MARKET FOR INSECT CELLS, BY REGION, 2021-2028 (USD MILLION) □176

TABLE 164 NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR INSECT CELLS, BY COUNTRY, 2021-2028 (USD MILLION) 177

TABLE 165∏EUROPE: RECOMBINANT PROTEINS MARKET FOR INSECT CELLS, BY COUNTRY, 2021-2028 (USD MILLION)∏177

TABLE 166 ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR INSECT CELLS, BY COUNTRY, 2021-2028 (USD MILLION) 178

TABLE 167 \square LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR INSECT CELLS, BY COUNTRY, 2021-2028 (USD MILLION) \square 178

TABLE 168 MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR INSECT CELLS, BY COUNTRY, 2021-2028 (USD MILLION) 179 8.4 YEAST & FUNGI 179

8.4.1 NEW APPLICATIONS IN VACCINE DEVELOPMENT AND DIABETES TREATMENT TO BOOST DEMAND 179

TABLE 169∏RECOMBINANT PROTEINS MARKET FOR YEAST & FUNGI, BY REGION, 2021-2028 (USD MILLION)∏180

TABLE 170 RECOMBINANT PROTEINS MARKET FOR YEAST & FUNGI, BY COUNTRY, 2021-2028 (USD MILLION) 180

TABLE 171 TRECOMBINANT PROTEINS MARKET FOR YEAST & FUNGI, BY COUNTRY, 2021-2028 (USD MILLION) 181

TABLE 172 RECOMBINANT PROTEINS MARKET FOR YEAST & FUNGI, BY COUNTRY, 2021-2028 (USD MILLION) 181

TABLE 173□LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR YEAST & FUNGI, BY COUNTRY, 2021-2028 (USD MILLION)□182
TABLE 174□MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR YEAST & FUNGI, BY COUNTRY, 2021-2028 (USD MILLION)□182

8.5∏BACTERIAL CELLS∏182

8.5.1 SIMPLIFIED GENETIC MANIPULATION AND SCALABILITY ADVANTAGES TO DRIVE MARKET 182

TABLE 175 RECOMBINANT PROTEINS MARKET FOR BACTERIAL CELLS, BY REGION, 2021-2028 (USD MILLION) 183

TABLE 176 RECOMBINANT PROTEINS MARKET FOR BACTERIAL CELLS, BY COUNTRY, 2021-2028 (USD MILLION) 184

TABLE 177 RECOMBINANT PROTEINS MARKET FOR BACTERIAL CELLS, BY COUNTRY, 2021-2028 (USD MILLION) 184

TABLE 178 ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR BACTERIAL CELLS, BY COUNTRY, 2021-2028 (USD MILLION) 185

TABLE 179 \square LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR BACTERIAL CELLS, BY COUNTRY, 2021-2028 (USD MILLION) \square 185

TABLE 180 MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR BACTERIAL CELLS, BY COUNTRY, 2021-2028 (USD MILLION) 185 8.6 OTHER HOST CELLS 186

TABLE 181 RECOMBINANT PROTEINS MARKET FOR OTHER HOST CELLS, BY REGION, 2021-2028 (USD MILLION) 186

Scotts International, EU Vat number: PL 6772247784

TABLE 182 NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR OTHER HOST CELLS, BY COUNTRY, 2021-2028 (USD MILLION) 187

TABLE 183 EUROPE: RECOMBINANT PROTEINS MARKET FOR OTHER HOST CELLS, BY COUNTRY, 2021-2028 (USD MILLION) 187
TABLE 184 ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR OTHER HOST CELLS, BY COUNTRY, 2021-2028 (USD MILLION) 188
TABLE 185 AMERICA: RECOMBINANT PROTEINS MARKET FOR OTHER HOST CELLS, BY COUNTRY, 2021-2028 (USD MILLION) 188

TABLE 186 MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR OTHER HOST CELLS, BY COUNTRY, 2021-2028 (USD MILLION) 189 9 RECOMBINANT PROTEINS MARKET, BY END USER 190

9.1∏INTRODUCTION∏191

TABLE 187 RECOMBINANT PROTEINS MARKET, BY END USER, 2021-2028 (USD MILLION) 191

9.2 □ PHARMACEUTICAL & BIOPHARMACEUTICAL COMPANIES □ 191

9.2.1 ⊓RISING DEVELOPMENT OF GENE THERAPIES AND VACCINES TO PROPEL MARKET 191

TABLE 188□RECOMBINANT PROTEINS MARKET FOR PHARMACEUTICAL & BIOPHARMACEUTICAL COMPANIES, BY REGION, 2021-2028 (USD MILLION)□193

TABLE 189 NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR PHARMACEUTICAL & BIOPHARMACEUTICAL COMPANIES, BY COUNTRY, 2021-2028 (USD MILLION) 193

TABLE 190 EUROPE: RECOMBINANT PROTEINS MARKET FOR PHARMACEUTICAL & BIOPHARMACEUTICAL COMPANIES, BY COUNTRY, 2021-2028 (USD MILLION) 194

TABLE 191

ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR PHARMACEUTICAL & BIOPHARMACEUTICAL COMPANIES, BY COUNTRY, 2021-2028 (USD MILLION)

194

TABLE 192 LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR PHARMACEUTICAL & BIOPHARMACEUTICAL COMPANIES, BY COUNTRY, 2021-2028 (USD MILLION) 195

TABLE 193 MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR PHARMACEUTICAL & BIOPHARMACEUTICAL COMPANIES, BY COUNTRY, 2021-2028 (USD MILLION) 195

9.3 BIOTECHNOLOGY COMPANIES 195

9.3.1 RISING NUMBER OF PROTEIN-BASED RESEARCH PROJECTS TO BOOST DEMAND 195

TABLE 194 TECOMBINANT PROTEINS MARKET FOR BIOTECHNOLOGY COMPANIES, BY REGION, 2021-2028 (USD MILLION) 196
TABLE 195 NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR BIOTECHNOLOGY COMPANIES, BY COUNTRY, 2021-2028 (USD MILLION) 196

TABLE 196 EUROPE: RECOMBINANT PROTEINS MARKET FOR BIOTECHNOLOGY COMPANIES, BY COUNTRY, 2021-2028 (USD MILLION) 197

TABLE 197 ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR BIOTECHNOLOGY COMPANIES, BY COUNTRY, 2021-2028 (USD MILLION) 197

TABLE 198 LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR BIOTECHNOLOGY COMPANIES, BY COUNTRY, 2021-2028 (USD MILLION) 198

TABLE 199□MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR BIOTECHNOLOGY COMPANIES, BY COUNTRY, 2021-2028 (USD MILLION)□198

9.4□ACADEMIC & RESEARCH INSTITUTES□199

9.4.1 FAVORABLE GOVERNMENT INVESTMENTS TO PROPEL MARKET 199

TABLE 200 TRECOMBINANT PROTEINS MARKET FOR ACADEMIC RESEARCH INSTITUTES, BY REGION, 2021-2028 (USD MILLION) TABLE 201 NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR ACADEMIC RESEARCH INSTITUTES, BY COUNTRY, 2021-2028 (USD MILLION) 200

TABLE 202 EUROPE: RECOMBINANT PROTEINS MARKET FOR ACADEMIC RESEARCH INSTITUTES, BY COUNTRY, 2021-2028 (USD MILLION) 201

TABLE 203

ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR ACADEMIC RESEARCH INSTITUTES, BY COUNTRY, 2021-2028 (USD MILLION)

201

TABLE 204 LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR ACADEMIC RESEARCH INSTITUTES, BY COUNTRY, 2021-2028

Scotts International, EU Vat number: PL 6772247784

(USD MILLION) □202

TABLE 205□MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR ACADEMIC RESEARCH INSTITUTES, BY COUNTRY, 2021-2028 (USD MILLION)□202

9.5□CONTRACT RESEARCH ORGANIZATIONS□202

9.5.1 | RISING OUTSOURCING OF CLINICAL TRIAL SERVICES TO SUPPORT MARKET GROWTH | 202

TABLE 206 | RECOMBINANT PROTEINS MARKET FOR CROS, BY REGION, 2021-2028 (USD MILLION) | 203

TABLE 207 | NORTH AMERICA: RECOMBINANT PROTEINS MARKET FOR CROS, BY COUNTRY, 2021-2028 (USD MILLION) | 203

TABLE 208 | EUROPE: RECOMBINANT PROTEINS MARKET FOR CROS, BY COUNTRY, 2021-2028 (USD MILLION) | 204

TABLE 209 | ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR CROS, BY COUNTRY, 2021-2028 (USD MILLION) | 204

TABLE 210 | LATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR CROS, BY COUNTRY, 2021-2028 (USD MILLION) | 205

TABLE 211 | MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR CROS, BY COUNTRY, 2021-2028 (USD MILLION) | 205

9.6 | OTHER END USERS | 205

TABLE 212 RECOMBINANT PROTEINS MARKET FOR OTHER END USERS, BY REGION, 2021-2028 (USD MILLION) AMERICA: RECOMBINANT PROTEINS MARKET FOR OTHER END USERS, BY COUNTRY, 2021-2028 (USD MILLION) 206

TABLE 214 EUROPE: RECOMBINANT PROTEINS MARKET FOR OTHER END USERS, BY COUNTRY, 2021-2028 (USD MILLION) 207
TABLE 215 ASIA PACIFIC: RECOMBINANT PROTEINS MARKET FOR OTHER END USERS, BY COUNTRY, 2021-2028 (USD MILLION) 207
TABLE 216 ATIN AMERICA: RECOMBINANT PROTEINS MARKET FOR OTHER END USERS, BY COUNTRY, 2021-2028 USD MILLION) 208
TABLE 217 MIDDLE EAST: RECOMBINANT PROTEINS MARKET FOR OTHER END USERS, BY COUNTRY, 2021-2028 (USD MILLION) 208



To place an Order with Scotts International:

Complete the relevant blank fields and sign

☐ - Print this form

Recombinant Proteins Market by Product (Growth Factors, Chemokines, Structural Proteins, Membrane Proteins), Application (Drug Discovery & Development (Biologics, Vaccines, Cell & Gene Therapy), Research, Biopharma Production) & Region - Global Forecast to 2028

Market Report | 2024-02-05 | 408 pages | MarketsandMarkets

 Send as a scanned email to support@scotts-international.com 						
ORDER FORM:						
Select license	License		Price			
	Single User		\$4950.00			
	Multi User		\$6650.00			
	Corporate License	\$8150.00				
	Enterprise Site License		\$10000.00			
		VAT				
		Total				
	· · · · · · · · · · · · · · · · · · ·	ase contact support@scotts-international.com or 0048 603 3 iduals and EU based companies who are unable to provide a				
Email*		Phone*				
First Name*		Last Name*				
Job title*						
Company Name*		EU Vat / Tax ID / NIP number*				
Address*		City*				

Scotts International. EU Vat number: PL 6772247784

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