

Protein Engineering Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028

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Abstracts

The global protein engineering market size reached US\$ 3.0 Billion in 2022. Looking forward, IMARC Group expects the market to reach US\$ 5.7 Billion by 2028, exhibiting a growth rate (CAGR) of 11.2% during 2023-2028.

Protein engineering refers to the process of developing or changing a protein sequence to achieve the desired result. It involves the synthesis of new proteins or amendments in the existing structure or sequence and employs recombinant deoxyribonucleic acid (DNA) technology to alter amino acid sequences for novel and enhanced functions. It is widely utilized for the production of enzymes or proteins in large quantities for use in industrial settings. In recent years, researchers have successfully engineered a wide range of proteins tailored to medicine, research, industry, health, and biotechnology applications, which is escalating their demand across the globe.

Protein Engineering Market Trends:

The rising investments in synthetic biology and the improving focus toward protein-based drug development represent the primary factors driving the market growth. Additionally, there has been a significant shift toward protein therapeutics from non-protein drugs due to their associated positive clinical outcomes. This, in confluence with the widespread prevalence of protein-deficient diseases, is increasing the demand for protein engineering. Furthermore, several favorable initiatives undertaken by the government of various countries, such as increased funding for research and development (R&D) activities in the field of protein engineering, are propelling the market growth. Besides this, the advent of recombinant monoclonal antibodies (mAbs) and the increasing usage of monoclonal antibodies to treat various diseases, such as cancer and autoimmune diseases, are accelerating product adoption rates. Moreover,

the ongoing research for applications of protein engineering in the agrochemical industry to generate enzymes with enhanced function to increase the crop yield or facilitate biofuel production is catalyzing the market growth. Other factors, including the escalating demand for personalized medicines, growing need for biosimilars and biologics, improving healthcare infrastructure, technological advancements, and product innovations, are also creating a positive outlook for the market.

Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global protein engineering market report, along with forecasts at the global, regional and country level from 2023-2028. Our report has categorized the market based on product & services, protein type, technology and end user.

Breakup by Product & Services:

- Instruments
- Reagents
- Services and Software

Breakup by Protein Type:

- Insulin
- Monoclonal Antibodies
- Coagulation Factors
- Vaccines
- Growth Factors
- Others

Breakup by Technology:

- Irrational Protein Design
- Rational Protein Design

Breakup by End User:

- Pharmaceutical and Biotechnology Companies
- Academic Research Institutes
- Contract Research Organizations

Breakup by Region:

North America

United States

Canada

Asia-Pacific

China

Japan

India

South Korea

Australia

Indonesia

Others

Europe

Germany

France

United Kingdom

Italy

Spain

Russia

Others

Latin America

Brazil

Mexico

Others

Middle East and Africa

Competitive Landscape:

The competitive landscape of the industry has also been examined along with the profiles of the key players being Abzena Ltd., Agilent Technologies Inc., Amgen Inc., Bio-Rad Laboratories Inc., Bruker Corporation, Codexis Inc., Danaher Corporation, Eli Lilly and Company, General Electric Company, Merck KGaA, Novo Nordisk A/S, PerkinElmer Inc., Thermo Fisher Scientific Inc. and Waters Corporation.

Key Questions Answered in This Report

1. What was the size of the global protein engineering market in 2022?
2. What is the expected growth rate of the global protein engineering market during 2023-2028?

3. What are the key factors driving the global protein engineering market?
4. What has been the impact of COVID-19 on the global protein engineering market?
5. What is the breakup of the global protein engineering market based on the product and services?
6. What is the breakup of the global protein engineering market based on the protein type?
7. What is the breakup of the global protein engineering market based on the technology?
8. What is the breakup of the global protein engineering market based on the end user?
9. What are the key regions in the global protein engineering market?
10. Who are the key players/companies in the global protein engineering market?

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