

# Recombinant Therapeutic Proteins Market & Pipeline Analysis

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## Abstracts

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Proteins are known to be the building blocks of life, and as a part of the natural metabolism, they are synthesized by all living forms. Some proteins, such as enzymes, tend to serve as biocatalysts, which help in increasing the rate of metabolic reactions. There are other types of proteins which form the cytoskeleton. There is a significant role played by proteins in functions like cell signaling, immune responses, cell adhesion, and the cell cycle. In industries, proteins are commercially produced by using genetic engineering and protein engineering. There are many sectors such as the biopharmaceutical industry, the enzyme industry, and the agricultural industry, which are significantly benefitted from native and recombinant proteins. In return the products manufactured in these industries tend to support the fields of medicine, diagnostics, food, nutrition, detergents, textiles, leather, paper, pulp, polymers and plastics.

Recombinant protein is a modified version of protein which is produced through different methods in order to further generate large quantities of proteins, modify gene sequences and eventually manufactures commercial products. The recombinant protein is formed with the help of specialized vehicles which are called vectors. The recombinant technology is the entire process which is involved in the formation of a recombinant protein.

Generally, the therapeutic proteins include antibody-based drugs, anticoagulants, blood factors, bone morphogenetic proteins, engineered protein scaffolds, enzymes, Fc fusion proteins, growth factors, hormones, interferons, interleukins, and thrombolytic. Of the total biopharmaceuticals which is being currently marketed, the dominant segment is accounted for by the recombinant therapeutic protein drugs. The major areas of

applications are diabetes, dwarf-ism, myocardial infarction, congestive heart failure, cerebral apoplexy, multiple sclerosis, neutropenia, thrombocytopenia, anemia, hepatitis, rheumatoid arthritis, asthma, Crohn's disease and cancers therapies.

There are many driving forces for the recombinant proteins market. These include the introduction of new protein therapeutics and enhanced investments which are likely to significantly impact the growth of this industry in a positive manner. Additionally, the rapidly rising number of clinical trials would also help in surfacing the optimistic performance of the industry.

In terms of segments, the major revenue-generating segments of the recombinant therapeutic protein market include monoclonal antibody, Insulin, Interferon Beta, G-CSF and coagulation factors. At present, owing to the fact that large number of companies is focusing their efforts in developing innovative treatment options using mAbs, this segment is currently the most dominant in terms of growth rate. In terms of the regional scenario of the recombinant proteins market, it has been observed that the US has been and would continue to account for the largest share of the global pie followed by the European countries. The emerging nations which are likely to be the future revenue generators for this market include the Asian and Middle-Eastern region, which is having a growing therapeutic market owing to improving economic scenario and financial capability of people.

The future years are likely to witness the protein therapeutics and specifically recombinant proteins dominating the overall pharmaceutical industry. Though in terms of market size, the protein therapeutics market is significantly smaller than the overall pharmaceutical market, on a comparative basis, the growth of the protein therapeutics market is significantly higher than the growth of the overall pharmaceutical market. With the introduction and increasing adoption of "recombinant technology", it is most likely that the protein therapeutics market would flourish in the coming years. This technology involves the development of therapies through designing the required protein structure synthetically. There is considerable amount of research being done in this field by both the private companies and the academicians and researchers at the universities and research centers. Their efforts are being directed towards successfully develop protein-based therapies for curing diseases like HIV/AIDS, cancer, hormonal imbalance and neurological disorders. Further, because of advantages like their higher specificity and effectiveness as compared to other drug forms, the protein therapies have become highly attractive for the pharmaceuticals companies who are rapidly shifting their focus towards this field.

## “Recombinant Therapeutic Proteins Market & Pipeline Analysis” Report Highlights:

Global Market Overview

Mechanisms of Recombinant Protein Production

Types of Recombinant DNA Technology

Clinical Pipeline by Phase, Indication, Company, & Country

Marketed Recombinant Therapeutic Protein Drugs Clinical Insight

Recombinant Therapeutic Proteins Clinical Pipeline: 340 Drugs

Marketed Recombinant Therapeutic Protein Drugs : 83 Drugs

Majority Recombinant Therapeutic Proteins in Preclinical Phase: 128 Drugs

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