

Protein Hydrolysis Enzymes Market by Source (Microorganisms, Animals, Plants), Method of Production (Fermentation and Extraction), Product, Application (Detergent, Pharmaceuticals, Food, Textiles & Leather) and Region - Global Forecast to 2027

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Abstracts

The protein hydrolysis enzymes market is projected to reach USD 2.9 Billion by 2027 growing at a CAGR of 6.2% from 2022 to 2027. With the increasing use of protein hydrolysis enzymes as chemical substitutes, particularly in detergent and food applications, the market for protein hydrolysis enzymes has experienced significant growth. Protein hydrolysis enzymes are increasingly being consumed in the food market with the increased consumption of meat and bakery products. Moreover, the increasing implications of protein hydrolysis enzymes in the pharmaceutical industry pose significant growth opportunities in the market. The growing market demand for protein hydrolysis enzymes is propelling the players in the market to adopt strategies such as product launches, deals and expansions to increase their market penetration. In November 2021, Biocatalysts launched a new product named “Promod 324L” for the pet food industry. It improved the processibility of the protein by increasing the solubility and reducing the viscosity of the protein. In October 2020, BASF expanded the detergent enzyme technology to provide key ingredients for the home care and I&I industry.

“Detergent industry has high demand in application segment.”

The detergent industry dominated the protein hydrolysis enzymes by application segment in 2022. Protein hydrolysis enzymes and other enzymes used in detergent

formulations have high activity and stability over a broad range of pH and temperature. Subtilisins are a prototypical group of bacterial serine proteases used extensively in detergents. Protein stains such as grass, blood, eggs, and human sweat are eliminated by proteolysis in laundry detergents. In addition, Serine proteases are the most important group for detergent applications. Adoption of new processing technologies such as ultrafiltration and reverse osmosis offers new avenues to cleaning operations. Specific application of enzymes in detergents includes dishwashing, cleaning of medical devices, laundry, color and fabric care, ware-washing applications, and floor cleaning. The usage of enzymes helps in higher product quality, lower manufacturing cost, and less waste, and reduced energy consumption. Major manufacturers of protein hydrolysis enzymes in the detergent industry include Novozymes (Denmark), BASF SE (Germany), AB Enzymes (UK), and Creative Enzymes (US).

“Asia Pacific is projected to witness the growth of 8.40% during the forecast period in the protein hydrolysis enzymes market.”

The protein hydrolysis enzymes market in the Asia Pacific region is projected to grow at a CAGR of 8.40% during the forecast period. Asia Pacific is projected to be the fastest growing market owing to high population base, rising disposable income, and rising incidences of diseases in the region. The region is expected to grow at a higher rate owing to the growing urbanization and increased demand in the packaged food, soap & washing powder, livestock feed, and pharmaceutical sectors. China, Japan, South Korea, and India have a reputation in the global pharmaceutical market for the continuous innovations done by their homegrown biotechnological firms. Protein hydrolysis enzymes are being developed in various forms to suit the varied needs of the food industries as well. The market for proteases in the Asia-Pacific region is expected to have positive growth in the future.

The break-up of Primaries:

By Company Type: Demand side – 43%, Supply side – 57%

By Designation: C level – 29%, Managers – 21%, Executives – 50%

By Region: North America – 34%, Europe – 37%, Asia Pacific – 16%, RoW – 13%

Leading players profiled in this report:

Novozymes (Denmark)

Associated British Foods (UK)

DSM (Netherlands)

DuPont (US)

BASF (Germany)

Advanced Enzyme Technologies (India)

Chr. Hansen Holding A/S (Denmark)

Dyadic International (US)

Research Coverage:

The report segments the protein hydrolysis enzymes market based on source, method of production, product, application, and region. In terms of insights, this report has focused on various levels of analyses—the competitive landscape, end-use analysis, and company profiles, which together comprise and discuss views on the emerging & high-growth segments of the global protein hydrolysis enzymes market, high-growth regions, countries, government initiatives, drivers, restraints, opportunities, and challenges.

Reasons to buy this report:

To get a comprehensive overview of the protein hydrolysis enzymes market

To gain wide-ranging information about the top players in this industry, their product portfolios, and key strategies adopted by them

To gain insights into the major countries/regions in which the protein hydrolysis enzymes market is flourishing

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The enzymes which are very specific to protein hydrolysis are proteases which are classified under the “hydrolases group”. Proteases refer to a group of enzymes whose catalytic function is to hydrolyze (breakdown) proteins. They are also called proteolytic enzymes or systemic enzymes. Proteases are classified into two major groups: exopeptidases (peptidases) and endopeptidases (proteinases). The peptidases hydrolyze the protein from C- or N-terminus releasing a single amino acid while endopeptidases, as the name suggests, hydrolyzes the peptide bond in the center of the amino acid chain. Further, the proteases are also classified into alkaline, acid, and neutral proteases based on their pH optimum activity. On the basis of the functional group present at the catalytic site, these proteases are classified as serine proteases, cysteine proteases, aspartic proteases, threonine proteases, glutamic acid proteases, and metalloproteases.

Proteases represent one of the three largest groups of industrial enzymes; others being the amylases and lipases.

Proteases enzymes mainly find their applications in detergents, leather, food, pharmaceutical industries, and bioremediation processes.

Microbial sources are the most preferred sources for the production of proteases enzymes. Proteases enzymes are majorly used in the detergent industry followed by pharmaceuticals and food respectively.

The report titled Protein Hydrolysis Enzymes Market: BY GEOGRAPHY (North America, Europe, Asia-Pacific, ROW), BY SOURCES (Microorganisms, Animals and Plants) and BY APPLICATION (Detergent and Cleaning Industry, Pharmaceuticals, Food Industry and others) – Global trends and forecasts to 2019 provides an in-depth analysis of the global protein hydrolysis enzymes market with a comprehensive coverage of the demand of protein hydrolysis enzymes across the globe in terms of value and volume. The key market challenges recognized by the analysts and the major trends of the protein hydrolysis enzymes market are presented in the report. The report also includes the competitive landscape of the leading players of the global protein hydrolysis enzymes market with respect to their key developments, manufacturing locations, and business strategies.

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