+357 96 030922
info@marketpublishers.com

Peptide Antibiotics Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Type (Non-Ribosomal Synthesized Peptide Antibiotics, Ribosomal Synthesized Peptide Antibiotics), By Route of Administration (Injectable, Oral, Topical), By Distribution Channel (Hospital Pharmacy, Online Pharmacy & Retail Pharmacy), By Region & Competition, 2021-2031F

https://marketpublishers.com/r/P0E8F528601BEN.html
Date: January 2026
Pages: 185
Price: US$ 4,500.00 (Single User License)
ID: P0E8F528601BEN

Abstracts

The Global Peptide Antibiotics Market is projected to grow from USD 5.38 Billion in 2025 to USD 8.13 Billion by 2031, achieving a CAGR of 7.12%. These antibiotics are composed of short amino acid sequences that act as antimicrobial agents by disrupting bacterial membranes or interfering with vital intracellular processes. The market's growth is primarily fueled by the increasing global threat of antimicrobial resistance and the critical need for new treatments effective against multi-drug resistant infections. Unlike traditional small-molecule drugs, peptide antibiotics possess unique mechanisms of action and a reduced likelihood of inducing resistance, factors that are driving their expanded research and clinical adoption.

Despite this potential, market expansion faces significant hurdles regarding metabolic stability and the high costs associated with large-scale synthesis. The industry also contends with a weak developmental pipeline that restricts the availability of late-stage therapeutic options. For instance, the International Federation of Pharmaceutical Manufacturers and Associations reported in 2025 that the global clinical pipeline included only one antibiotic candidate in Phase III trials aimed at critical priority pathogens. This shortage of advanced candidates emphasizes the enduring economic

+357 96 030922
info@marketpublishers.com

and scientific challenges that continue to impede the sector's progress.

Market Driver

The rising global prevalence of antimicrobial resistance (AMR) serves as the primary driver for the Global Peptide Antibiotics Market. As bacterial pathogens develop defenses against standard small-molecule drugs, the demand for peptide-based therapeutics with unique modes of action has intensified. These agents are crucial for treating the increasing number of infections that fail to respond to first-line therapies. The World Health Organization's 'Global Antibiotic Resistance Surveillance Report 2025', released in October 2025, noted that resistance increased in over 40% of monitored pathogen-antibiotic combinations between 2018 and 2023. This trend highlights the urgent clinical need for peptides that disrupt bacterial membranes with a lower risk of resistance, while the WHO also reported in 2025 that one in six bacterial infections globally involved resistant pathogens, illustrating the vast market potential for these new interventions.

Concurrently, increased public and private funding for antibiotic R&D is accelerating market growth by alleviating the financial risks inherent in drug development. Although the high costs and limited commercial returns of antibiotic synthesis have historically stifled innovation, recent financial mechanisms have revitalized the industry. These investments allow biotechnology firms to progress early-stage peptide candidates through the difficult initial phases of clinical trials. As stated in CARB-X?s '2024 Annual Report' from April 2025, the accelerator has supported 67% of the active Phase 1 clinical pipeline for non-traditional antibacterial therapeutics targeting critical priority pathogens. This financial backing is essential for stabilizing the developmental pipeline and ensuring that advanced peptide engineering technologies can result in commercially viable therapies that meet rigorous safety standards.

Market Challenge

The Global Peptide Antibiotics Market is substantially hindered by a fragile developmental pipeline that limits the supply of late-stage therapeutics. This structural weakness arises from persistent economic difficulties within the antibiotic sector, where the high costs of complex peptide synthesis and clinical trials often outweigh potential market returns. Consequently, capital investment has declined, leading major pharmaceutical companies to reduce their participation. This environment shifts the burden of innovation to smaller biotechnology firms, which frequently lack the financial resilience needed to advance novel peptide candidates through the rigorous and

+357 96 030922
info@marketpublishers.com

expensive stages of advanced clinical development.

This lack of investment is compounded by a critical shortage of the specialized scientific workforce needed to drive discovery in this niche field. The AMR Industry Alliance reported that in 2024, there were only approximately 3,000 researchers globally actively focused on developing new antibiotics. This scarcity of skilled human capital directly impedes the resolution of technical issues such as metabolic stability, thereby delaying the introduction of new peptide therapies and causing prolonged stagnation in market growth.

Market Trends

Pharmaceutical companies and research institutions are increasingly utilizing AI algorithms and deep learning models to predict peptide structures, optimize amino acid sequences to lower toxicity, and accelerate the identification of novel antimicrobial peptides (AMPs). Integrating this technology enables developers to analyze immense biological datasets that are impossible to process via traditional screening methods, effectively revitalizing the early-stage discovery pipeline. Highlighting this capability, researchers recently applied machine learning to examine the proteomes of ancient organisms for hidden therapeutic candidates. In August 2025, the University of Pennsylvania reported in the article 'AI uncovers new antibiotics in ancient microbes' that their AI model successfully identified 12,623 potential antimicrobial peptides in the genomes of extinct species, demonstrating the vast volume of candidates AI can reveal.

In the manufacturing sector, there is a shift toward sustainable and automated production methods, particularly utilizing green chemistry solvents and advanced Solid-Phase Peptide Synthesis (SPPS) to reduce hazardous waste and enhance scalability. As the demand for peptide therapeutics rises, Contract Development and Manufacturing Organizations are investing heavily in automated infrastructure to bridge the gap between laboratory synthesis and commercial-scale production. Demonstrating this trend toward high-capacity automation, major industry players are significantly expanding their European facilities. For example, CordenPharma announced in a March 2025 press release titled 'CordenPharma Builds >?500m Switzerland Peptide Greenfield Site' its plans to construct a new facility featuring advanced automation with a total SPPS reactor capacity exceeding 5,000 liters.

Key Market Players

Pfizer Inc.

+357 96 030922
info@marketpublishers.com

Merck & Co., Inc.

AbbVie Inc

GSK Plc

Sandoz International GmbH

The Menarini Group

Novartis AG

Teva Pharmaceutical Industries Ltd.

AuroMedics Pharma LLC

Report Scope

In this report, the Global Peptide Antibiotics Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

Peptide Antibiotics Market, By Type

Non-Ribosomal Synthesized Peptide Antibiotics

Ribosomal Synthesized Peptide Antibiotics

Peptide Antibiotics Market, By Route of Administration

Injectable

Oral

Topical

Peptide Antibiotics Market, By Distribution Channel

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

South America

Brazil

Argentina

Colombia

Middle East & Africa

South Africa

Saudi Arabia

UAE

Competitive Landscape

Company Profiles: Detailed analysis of the major companies present in the Global Peptide Antibiotics Market.

Available Customizations:

Global Peptide Antibiotics Market report with the given market data, TechSci Research offers customizations according to a company's specific needs. The following customization options are available for the report:

Company Information

Detailed analysis and profiling of additional market players (up to five).

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

6. NORTH AMERICA PEPTIDE ANTIBIOTICS MARKET OUTLOOK

7. EUROPE PEPTIDE ANTIBIOTICS MARKET OUTLOOK

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

8. ASIA PACIFIC PEPTIDE ANTIBIOTICS MARKET OUTLOOK

+357 96 030922
info@marketpublishers.com

9. MIDDLE EAST & AFRICA PEPTIDE ANTIBIOTICS MARKET OUTLOOK

+357 96 030922
info@marketpublishers.com

10. SOUTH AMERICA PEPTIDE ANTIBIOTICS MARKET OUTLOOK

11. MARKET DYNAMICS

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Peptide Antibiotics Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Type (Non-Ribosomal Synthesized Peptide Antibiotics, Ribosomal Synthesized Peptide Antibiotics), By Route of Administration (Injectable, Oral, Topical), By Distribution Channel (Hospital Pharmacy, Online Pharmacy & Retail Pharmacy), By Region & Competition, 2021-2031F

Product link: https://marketpublishers.com/r/P0E8F528601BEN.html

Price: US$ 4,500.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/P0E8F528601BEN.html