

# U.S. Plasmid DNA Manufacturing Market Size, Share & Trends Analysis Report By Disease (Cancer, Infectious Diseases), By Grade (R&D, GMP), By Application, By Development Phase, And Segment Forecasts, 2025 - 2033

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## Abstracts

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### U.S. Plasmid DNA Manufacturing Market Summary

The U.S. plasmid DNA manufacturing market size was estimated at USD 803.0 million in 2024 and is projected to reach USD 5,038.0 million by 2033, growing at a CAGR of 23.06% from 2025 to 2033. This expansion is driven by increasing demand for gene therapies, DNA vaccines, and other advanced biologics that rely on high-quality plasmid DNA as a foundational component.

Continued investment in biotechnology research and supportive regulatory frameworks are expected to propel market development further over the forecast period.

### Rising Prevalence of Genetic Disorders and Cancer

The rising prevalence of genetic disorders and cancer is a major factor driving growth in the U.S. plasmid DNA manufacturing industry. Advances in genetic research have highlighted the role of gene mutations and abnormalities in various diseases, leading to increased development of gene therapies aimed at treating these conditions at their source. Similarly, cancer treatment is increasingly shifting toward personalized and targeted therapies, many of which depend on plasmid DNA as a vector to deliver therapeutic genes or immune modulators. As diagnostic technologies improve and the

population ages, more patients are identified as candidates for these innovative therapies, expanding the demand for plasmid DNA.

Moreover, the complex and individualized nature of genetic and cancer therapies requires highly specialized and scalable plasmid DNA manufacturing processes. Biotech companies and research institutions invest heavily in developing flexible production platforms that meet the rigorous quality standards and volume demands of clinical and commercial applications. This increased focus on precision medicine and tailored treatments further solidifies plasmid DNA's role as a critical component in the evolving landscape of advanced therapeutics, driving sustained market expansion.

### U.S. Plasmid DNA Manufacturing Market Report Segmentation

This report forecasts revenue growth and provides an analysis of the latest trends in each of the sub-segments from 2021 to 2033. For this report, Grand View Research has segmented the U.S. plasmid DNA manufacturing market report based on grade, development phase, application, and disease:

#### Grade Outlook (Revenue, USD Million, 2021 - 2033)

##### R&D Grade

Viral Vector Development

AAV

Lentivirus

Adenovirus

Retrovirus

Others

mRNA Development

Antibody Development

DNA Vaccine Development

Others

GMP Grade

Development Phase Outlook (Revenue, USD Million, 2021 - 2033)

Pre-Clinical Therapeutics

Clinical Therapeutics

Marketed Therapeutics

Application Outlook (Revenue, USD Million, 2021 - 2033)

DNA Vaccines

Cell & Gene Therapy

Immunotherapy

Others

Disease Outlook (Revenue, USD Million, 2021 - 2033)

Infectious Disease

Cancer

Genetic Disorder

Others

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