

Polymerase Chain Reaction - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts 2021 - 2029

Market Report | 2024-02-17 | 115 pages | Mordor Intelligence

AVAILABLE LICENSES:

- Single User License \$4750.00
- Team License (1-7 Users) \$5250.00
- Site License \$6500.00
- Corporate License \$8750.00

Report description:

The Polymerase Chain Reaction Market size is estimated at USD 13.31 billion in 2024, and is expected to reach USD 19.94 billion by 2029, growing at a CAGR of 8.42% during the forecast period (2024-2029).

The COVID-19 pandemic significantly impacted the polymerase chain reaction market growth. There was a positive impact on the PCR market due to the increasing demand in the clinical diagnostic segment of the market. As the authorities have not recommended viral culture tests, almost all the diagnostic tests use RT-PCR to test the population who had symptoms of COVID-19 were advised by healthcare professionals to undergo a diagnostic test. Most pharmaceutical and biotechnological companies were focusing on the research and development departments on identifying new molecules or leads for the treatment of COVID-19. For instance, in May 2021, Cipla Limited launched 'ViraGen', a polymerase chain reaction (COVID-19 RT-PCR) test for COVID-19 in India in partnership with Ubio Biotechnology Systems Pvt. Ltd. Hence, the COVID-19 pandemic impacted the studied market initially. As the pandemic subsided, fewer PCR tests are being carried out due to which the market has lost some traction that it gained during the pandemic. However, the studied market is expected to have favorable growth over the forecast period of the study.

The major factors driving the growth of the polymerase chain reaction market include the increasing application in clinical diagnostics, rising demand for personalized and precision medicine, and technological advancements and applications in drug development.

The rising demand for personalized and precision medicine is a major factor driving the polymerase chain reaction market growth. For instance, according to an article published by PubMed Central in January 2022, the application of personalized medicine (PM) is said to be rapidly evolving and it has expanded beyond simple genomics. The article also stated that

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scott-international.com

www.scott-international.com

personalized medicines are applied to make medical decisions by integrating daily health, disease characteristic, organ function, environmental, and lifetime exposure data. Furthermore, according to an article published by PubMed in September 2022, digital PCR (dPCR) is a new technology that offers higher precision and other better indicators than the former PCR techniques. The article also stated that dPCR is particularly suited for precision medicine applications that require accurate molecular characterization with high sensitivity. Hence, the rising demand for precision medicines and the increasing adoption of PCR in precision medicine is expected to boost the market growth during the forecast period of the study.

Additionally, technological advancements in molecular biology, life sciences, and biotechnology have brought a paradigm shift in drug discovery, personalized medicines, forensic sciences, and clinical research and development in the biotechnology industry. Polymerase chain reaction (PCR) is an integral part of the pharmaceutical and life science industries, for developing assays, test kits and solutions, and culture media. The rising use of these PCR techniques in disease diagnosis is further fueling market growth. For instance, according to an article published by PubMed Central in July 2022, multiplex PCR has become more and more widely used in the rapid detection of respiratory tract infections as it is relatively cost-saving and can report results within hours, which has become one of the most attractive test methods and currently one of the most commonly used methods in the clinical laboratory.

In addition, new product launches and strategic activities by major players in the market are positively affecting the growth of the studied market. For instance, in August 2022, GenScript USA launched a real-time polymerase chain reaction (RT-PCR) monkeypox test for research lab use. The kit was developed in partnership with Anbio Biotechnology, and it was made available for diagnostic labs and medical device distributors to be used in research to detect the monkeypox virus. Additionally, in September 2022, Bosch launched a new Vivalytic test MRSA/SA for Bosch's Vivalytic platform, thus expanding the test portfolio of this universal PCR system. Hence, these new product launches are expected to boost the growth of the studied market.

Therefore, owing to the factors such as new product launches and strategic activities by major players, technological advancements in molecular biology, life sciences, and biotechnology, and rising demand for personalized and precision medicine, the studied market is anticipated to witness growth over the analysis period. However, the high cost of instruments and the emergence of alternative technologies are the factors hindering the polymerase chain reaction market growth.

Polymerase Chain Reaction (PCR) Market Trends

Clinical Diagnostics Segment is Expected to Witness a Significant Growth Over the Forecast Period

The clinical diagnostics segment is expected to witness significant growth over the forecast period. PCR has become an integral part of clinical diagnosis over the years. PCR helps reduce diagnosis time and has improved the specificity and accuracy of clinical diagnostic tests. Hence, factors such as the increasing adoption of PCR in clinical diagnostics and the rising prevalence of infectious diseases such as HIV/AIDS are driving the segment's growth.

According to an article updated by NCBI in May 2022, PCR is considered a laboratory technique that is utilized to amplify specific segments of DNA for a wide range of laboratory and/or clinical diagnostic applications. The article further stated that PCR amplification has various applications within medicine, such as being used to test for the presence of specific alleles in the case of prospective parents screening for genetic carriers; it can also be used to diagnose the presence of disease directly and for mutations in the developing embryo.

Also, the rising prevalence of infectious diseases is expected to enhance the segment's growth. For instance, as per the data by UNAIDS in 2022, an estimated 38.4 million people globally were living with HIV in 2021, and 1.5 million people became newly infected with HIV in 2021. Hence, the rising prevalence of infectious diseases around the world is expected to enhance segment growth, as PCR plays an important role in the diagnosis of diseases.

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

The growth of this market segment is also helped by the introduction of new products. For instance, in August 2022, Molbio Diagnostics launched a new test named the Trunet RT-PCR test for the differential diagnosis of HIV-1 and HIV-2 with viral loads within 60 minutes. Such launches also propel the growth of the market segment.

Thus, factors such as the increasing adoption of PCR in clinical diagnostics, the rising prevalence of infectious diseases such as HIV, and the launch of new products are expected to enhance the segment's growth during the forecast period.

North America is Expected to Hold a Significant Share in the Market Over the Forecast Period

The North America segment is growing because there are a lot of manufacturers in the market, there are more genetic and chronic diseases like cancer, the population is getting older, people want more precise and personalized medicine, and the government is doing things to help.

For instance, according to data from the American Cancer Society, in 2022, there will be an estimated 1.9 million new cancer cases diagnosed and 609,360 cancer deaths in the United States. Furthermore, according to the data updated by the CDC in November 2022, it is estimated that from October 2022 to November 2022 there have been 2,800,000-6,600,000 flu-related illnesses, 1,400,000-3,300,000 flu-related medical visits, and 23,000-48,000 flu-related hospitalizations in the United States. Moreover, according to the data published by Statistics Canada in collaboration with the Canadian Cancer Society and the Public Health Agency of Canada in June 2022, an estimated 233,900 people in Canada will be diagnosed with cancer during 2022. Hence, the rising prevalence of such diseases is poised to increase the adoption of PCR, thus enhancing market growth during the forecast period of the study.

Furthermore, the launch of new products based on PCR tests will drive the market's growth significantly. For instance, in November 2022, Roche introduced the Cobas 5800 System in the United States. It is a compact, fully-automated molecular laboratory instrument that offers a flexible PCR testing solution that aids clinicians in the diagnosis of infectious diseases. Furthermore, in May 2021, the United States FDA approved the TheraScreen KRAS RGQ PCR Kit by Qiagen, a laboratory test that detects seven mutations found in the KRAS gene of non-small cell lung cancer and colorectal cancer.

Thus, in view of factors such as the increasing prevalence of genetic and chronic disorders and the launch of new products based on PCR tests, the market is expected to witness significant growth in the region over the forecast period.

Polymerase Chain Reaction (PCR) Industry Overview

The market studied is moderately consolidated in nature, owing to the presence of a few major players. Some of the market players are Abbott Laboratories, Agilent Technologies Inc., Becton, Dickinson and Company, BioMerieux SA, Bio-Rad Laboratories Inc., GE Healthcare, Merck KGaA, PerkinElmer Inc., Promega Corporation, Siemens Healthcare, and Thermo Fisher Scientific Inc. These major companies in the market are engaging in partnerships, mergers, and acquisitions, aiming to strengthen their product portfolios and manufacturing capacities and provide competitive differentiation.

Additional Benefits:

- The market estimate (ME) sheet in Excel format
- 3 months of analyst support

Table of Contents:

1 INTRODUCTION

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

1.1 Study Assumptions and Market Definition

1.2 Scope of the Study

2 RESEARCH METHODOLOGY

3 EXECUTIVE SUMMARY

4 MARKET DYNAMICS

4.1 Market Overview

4.2 Market Drivers

4.2.1 Increasing Application in Clinical Diagnostics

4.2.2 Rising Demand for Personalized and Precision Medicines

4.2.3 Technological Advancements and Applications in Drug Development

4.3 Market Restraints

4.3.1 High Cost of Instruments

4.3.2 Emergence of Alternative Technologies

4.4 Porter's Five Forces Analysis

4.4.1 Threat of New Entrants

4.4.2 Bargaining Power of Buyers/Consumers

4.4.3 Bargaining Power of Suppliers

4.4.4 Threat of Substitute Products

4.4.5 Intensity of Competitive Rivalry

5 MARKET SEGMENTATION (Market Size by Value -USD million)

5.1 By Product

5.1.1 Instruments

5.1.1.1 Standard PCR Systems

5.1.1.2 Digital PCR Systems

5.1.1.3 Real-time PCR Systems

5.1.2 Reagents and Consumables

5.1.3 Software

5.2 By Application

5.2.1 Clinical Diagnostics

5.2.2 Life Science Research and Industrial Applications

5.2.3 Other Applications

5.3 By End User

5.3.1 Academic Institutes

5.3.2 Clinical Diagnostics Labs and Hospitals

5.3.3 Pharmaceutical and Biotechnology Industries

5.3.4 Other End Users

5.4 Geography

5.4.1 North America

5.4.1.1 United States

5.4.1.2 Canada

5.4.1.3 Mexico

5.4.2 Europe

5.4.2.1 Germany

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 5.4.2.2 United Kingdom
- 5.4.2.3 France
- 5.4.2.4 Italy
- 5.4.2.5 Spain
- 5.4.2.6 Rest of Europe
- 5.4.3 Asia-Pacific
 - 5.4.3.1 China
 - 5.4.3.2 Japan
 - 5.4.3.3 India
 - 5.4.3.4 Australia
 - 5.4.3.5 South Korea
 - 5.4.3.6 Rest of Asia-Pacific
- 5.4.4 Middle East and Africa
 - 5.4.4.1 GCC
 - 5.4.4.2 South Africa
 - 5.4.4.3 Rest of Middle East and Africa
- 5.4.5 South America
 - 5.4.5.1 Brazil
 - 5.4.5.2 Argentina
 - 5.4.5.3 Rest of South America

6 COMPETITIVE LANDSCAPE

- 6.1 Company Profiles
 - 6.1.1 Abbott Laboratories
 - 6.1.2 Agilent Technologies Inc.
 - 6.1.3 Becton, Dickinson and Company
 - 6.1.4 bioMerieux SA
 - 6.1.5 Bio-Rad Laboratories Inc.
 - 6.1.6 Merck KGaA
 - 6.1.7 PerkinElmer Inc.
 - 6.1.8 Promega Corporation
 - 6.1.9 Siemens Healthcare
 - 6.1.10 Thermo Fisher Scientific Inc.
 - 6.1.11 Danaher Corporation
 - 6.1.12 QIAGEN
 - 6.1.13 QuantuMDx Group Ltd
 - 6.1.14 Eppendorf

7 MARKET OPPORTUNITIES AND FUTURE TRENDS

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

**Polymerase Chain Reaction - Market Share Analysis, Industry Trends & Statistics,
Growth Forecasts 2021 - 2029**

Market Report | 2024-02-17 | 115 pages | Mordor Intelligence

To place an Order with Scotts International:

- Print this form
- Complete the relevant blank fields and sign
- Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	\$4750.00
	Team License (1-7 Users)	\$5250.00
	Site License	\$6500.00
	Corporate License	\$8750.00
		VAT
		Total

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*	<input type="text"/>	Phone*	<input type="text"/>
First Name*	<input type="text"/>	Last Name*	<input type="text"/>
Job title*	<input type="text"/>		
Company Name*	<input type="text"/>	EU Vat / Tax ID / NIP number*	<input type="text"/>
Address*	<input type="text"/>	City*	<input type="text"/>
Zip Code*	<input type="text"/>	Country*	<input type="text"/>
		Date	<input type="text" value="2026-03-05"/>
		Signature	

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

