

Preimplantation Genetic Testing Market Forecasts to 2032 – Global Analysis By Product (Reagents & Consumables, Instruments and Software), Procedure, Technology, Application, End User and By Geography

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Abstracts

According to Statistics MRC, the Global Preimplantation Genetic Testing Market is accounted for \$883.1 million in 2025 and is expected to reach \$2103.3 million by 2032 growing at a CAGR of 13.2% during the forecast period. Preimplantation genetic testing is a laboratory procedure performed on embryos created via in vitro fertilization (IVF) to identify genetic or chromosomal abnormalities before pregnancy. It involves analyzing one or more cells from the embryo to screen for inherited diseases, chromosomal normality, or other genetic conditions. This testing helps select healthy embryos for implantation, reducing the risk of genetic disorders in the offspring.

According to the U.S. Department of Health and Human Services, infertility affects millions of Americans at some point in their lives. IVF is a crucial fertility treatment, accounting for over 99% of ART procedures.

Market Dynamics:

Driver:

Increasing incidence of genetic disorders and infertility

The rising global prevalence of genetic disorders and infertility is a primary driver for the preimplantation genetic testing market. Couples opting for assisted reproductive technologies increasingly seek genetic screening to reduce the risk of inherited conditions in embryos. Advancements in diagnostic accuracy and awareness of

chromosomal abnormalities have further spurred demand. With maternal age on the rise and infertility rates escalating, particularly in urban populations, PGT is emerging as a proactive solution to ensure healthy pregnancies.

Restraint:

High cost and limited reimbursement policies

Despite its clinical benefits, the high cost of preimplantation genetic testing remains a significant barrier, especially in developing economies. Limited insurance coverage and restrictive reimbursement policies discourage widespread adoption. Many patients are burdened with out-of-pocket expenses, particularly when PGT is bundled with in-vitro fertilization. Moreover, variability in regulatory frameworks across regions further constrains access. These financial and policy constraints hinder market penetration, particularly among middle-income demographics and public healthcare systems.

Opportunity:

Growing adoption of IVF and assisted reproductive technologies

Widespread adoption of in-vitro fertilization (IVF) and other assisted reproductive technologies (ART) presents a strong growth opportunity for the PGT market. As success rates of IVF improve, clinics increasingly integrate genetic testing to enhance implantation outcomes and reduce miscarriages. Rising acceptance of ART among same-sex couples, single parents, and those with recurrent pregnancy loss has broadened the patient base. The integration of AI and next-generation sequencing (NGS) further enhances PGT accuracy, attracting newer demographics and boosting clinical success.

Threat:

Lack of awareness in certain populations

Inadequate awareness regarding preimplantation genetic testing, particularly in rural and underdeveloped regions, poses a critical threat to market expansion. Misconceptions, socio-cultural taboos, and limited genetic literacy reduce adoption rates despite increasing infertility cases. Additionally, lack of education among patients and healthcare providers about the benefits and eligibility criteria of PGT hinders early consultation. This awareness gap continues to delay timely intervention, particularly

among high-risk carriers of genetic diseases, curbing the market's full potential.

Covid-19 Impact:

The COVID-19 pandemic disrupted fertility services globally, leading to postponed IVF cycles and a temporary decline in PGT procedures. Clinics faced staff shortages, mobility restrictions, and supply chain interruptions for reagents and test kits. However, post-pandemic recovery has been marked by a rebound in fertility treatments and increased emphasis on genetic health. Telemedicine, digitized consultations, and remote genetic counseling have helped restore patient engagement, supporting renewed growth in PGT services amid strengthened healthcare digitization.

The reagents & consumables segment is expected to be the largest during the forecast period

The reagents & consumables segment is expected to account for the largest market share during the forecast period, due to its recurring demand across every testing cycle. Laboratories rely on high-quality reagents, probes, and kits for accurate embryo analysis, driving consistent consumption. Continuous advancements in molecular diagnostic tools and NGS-based testing have also increased demand for specialized reagents. Additionally, the growing volume of IVF procedures globally necessitates regular procurement of consumables, making this segment a critical revenue driver for diagnostic suppliers.

The preimplantation genetic screening segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the preimplantation genetic screening segment is predicted to witness the highest growth rate, impelled by the growing desire to improve IVF success rates and prevent chromosomal abnormalities. PGS aids in identifying aneuploidy and structural rearrangements, enabling the selection of genetically viable embryos. As maternal age rises, especially in developed nations, the relevance of PGS continues to grow. Additionally, the integration of NGS and automated analytics is enhancing efficiency, accuracy, and accessibility of screening protocols.

Region with largest share:

During the forecast period, the Asia Pacific region is expected to hold the largest market share, driven by expanding fertility tourism, rising infertility rates, and increased ART

adoption. Countries like India, China, and Japan are witnessing a surge in advanced reproductive services, backed by improving healthcare infrastructure and supportive policies. In addition, growing medical tourism and competitive treatment costs attract international patients. The region's large reproductive-age population and rising awareness around genetic health contribute to its dominant market position.

Region with highest CAGR:

Over the forecast period, the North America region is anticipated to exhibit the highest CAGR attributed to advanced healthcare infrastructure, high adoption of ART, and favorable reimbursement scenarios in select states. Strong demand for personalized reproductive solutions and early screening among older parents bolsters PGT uptake. Furthermore, the presence of leading genomic testing firms, regulatory clarity, and ongoing clinical innovations in embryo diagnostics support rapid market expansion. Patient awareness and fertility education initiatives also enhance regional growth momentum.

Key players in the market

Some of the key players in Preimplantation Genetic Testing Market include Illumina, Inc., Thermo Fisher Scientific, Inc., Agilent Technologies, Inc., PerkinElmer, Inc., CooperSurgical, Abbott Laboratories, Natera, Rubicon Genomics, Oxford Gene Technology, Yikon Genomics, Good Start Genetics, Invicta Genetics, Progenesis, Igenomix, Bioarray S.L., Quest Diagnostics, Fulgent Genetics, Inc., Labcorp, and Genea Limited.

Key Developments:

In February 2025, Thermo Fisher Scientific expanded its PGT capabilities with an integrated NGS workflow allowing a single sample to be assessed for both PGT-A (aneuploidy) and PGT-M (monogenic disorders) using Ion Torrent technology—offering comprehensive results with rapid turnaround and accessible analysis tools.

In January 2025, Illumina launched major upgrades to its NovaSeq X Series, including a new single-flow-cell system, advanced software, and improved reagent kits, further strengthening its leadership in genomic sequencing, a key technology for PGT.

Products Covered:

Reagents & Consumables

Instruments

Software

Procedures Covered:

Preimplantation Genetic Screening

Preimplantation Genetic Diagnosis

Technologies Covered:

Next Generation Sequencing (NGS)

Polymerase Chain Reaction (PCR)

Fluorescent In-Situ Hybridization (FISH)

Other Technologies

Applications Covered:

Chromosomal Abnormalities

X-linked Diseases

Embryo Testing

Aneuploidy Screening

HLA Typing

Other Applications

End Users Covered:

Fertility Centers

Hospitals

Diagnostic Centers

Research Centers & Academic Labs

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2024, 2025, 2026, 2028, and 2032

- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

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