

# **In Vitro Lung Model Market Size, Trends, Analysis, and Outlook By Type (2D Model, 3D Model), By Application (Drug discovery and toxicology studies, Physiological research, 3D Model development, Others), By End-user (Academic research institutes, Pharmaceutical and biotechnology companies, Others), by Region, Country, Segment, and Companies, 2024-2030**

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## **Abstracts**

The global In Vitro Lung Model market size is poised to register 17.3% growth from 2024 to 2030, presenting significant growth prospects for companies operating in the industry. The industry study analyzes the global In Vitro Lung Model market across By Type (2D Model, 3D Model), By Application (Drug discovery and toxicology studies, Physiological research, 3D Model development, Others), By End-user (Academic research institutes, Pharmaceutical and biotechnology companies, Others).

The in vitro lung model market is witnessing significant growth driven by increasing applications in drug discovery and development, rising demand for alternative testing methods, and advancements in tissue engineering and microfluidics technologies. In vitro lung models are artificial systems designed to mimic the structure and function of the human lung, allowing researchers to study lung physiology, disease mechanisms, and drug responses in a controlled laboratory setting. Factors such as the growing need for predictive preclinical models, rising concerns about animal welfare and ethical considerations, and expanding applications in respiratory toxicology, inhalation drug delivery, and environmental health research are driving market expansion. Additionally, advancements in three-dimensional (3D) cell culture techniques, increasing use of

organ-on-a-chip platforms and bioengineered lung tissues, and expanding collaborations between academia and industry to develop physiologically relevant lung models are further fueling market growth. Moreover, rising investments in respiratory disease research, growing demand for personalized medicine approaches, and expanding regulatory acceptance of in vitro lung models as predictive tools for drug safety and efficacy assessment are expected to drive market growth in the coming years. Furthermore, efforts to develop standardized assay protocols, optimize tissue culture conditions, and validate in vitro lung models for specific applications are likely to accelerate market expansion.

### In Vitro Lung Model Market Drivers, Trends, Opportunities, and Growth Opportunities

This comprehensive study discusses the latest trends and the most pressing challenges for industry players and investors. The In Vitro Lung Model market research analyses the global market trends, key drivers, challenges, and opportunities in the industry. In addition, the latest Future of In Vitro Lung Model survey report provides the market size outlook across types, applications, and other segments across the world and regions. It provides data-driven insights and actionable recommendations for companies in the In Vitro Lung Model industry.

### Key market trends defining the global In Vitro Lung Model demand in 2024 and Beyond

The industry continues to remain an attractive hub for opportunities for both domestic and global vendors. As the market evolves, factors such as emerging market dynamics, demand from end-user sectors, a growing patient base, changes in consumption patterns, and widening distribution channels continue to play a major role.

### In Vitro Lung Model Market Segmentation- Industry Share, Market Size, and Outlook to 2030

The In Vitro Lung Model industry comprises a wide range of segments and sub-segments. The rising demand for these product types and applications is supporting companies to increase their investment levels across niche segments. Accordingly, leading companies plan to generate a large share of their future revenue growth from expansion into these niche segments. The report presents the market size outlook across segments to support In Vitro Lung Model companies scaling up production in these sub-segments with a focus on expanding into emerging countries.

### Key strategies adopted by companies within the In Vitro Lung Model industry

Leading In Vitro Lung Model companies are boosting investments to capitalize on untapped potential and future possibilities across niche market segments and surging demand conditions in key regions. Further, companies are leveraging advanced technologies to unlock opportunities and achieve operational excellence. The report provides key strategies opted for by the top 10 In Vitro Lung Model companies.

### In Vitro Lung Model Market Study- Strategic Analysis Review

The In Vitro Lung Model market research report dives deep into the qualitative factors shaping the market, empowering you to make informed decisions-

**Industry Dynamics:** Porter's Five Forces analysis to understand bargaining power, competitive rivalry, and threats that impact long-term strategy formulation.

**Strategic Insights:** Provides valuable perspectives on key players and their approaches based on comprehensive strategy analysis.

**Internal Strengths and Weaknesses:** Develop targeted strategies to leverage strengths, address weaknesses, and capitalize on market opportunities.

**Future Possibilities:** Prepare for diverse outcomes with in-depth scenario analysis. Explore potential market disruptions, technology advancements, and economic changes.

### In Vitro Lung Model Market Size Outlook- Historic and Forecast Revenue in Three Cases

The In Vitro Lung Model industry report provides a detailed analysis and outlook of revenue generated by companies from 2018 to 2023. Further, with actual data for 2023, the report forecasts the market size outlook from 2024 to 2030 in three case scenarios- low case, reference case, and high case scenarios.

### In Vitro Lung Model Country Analysis and Revenue Outlook to 2030

The report analyses 22 countries worldwide including the key driving forces and market size outlook from 2021 to 2030. In addition, region analysis across Asia Pacific, Europe,

the Middle East, Africa, North America, and South America is included in the study. For each of the six regions, the market size outlook by segments is forecast for 2030.

**North America In Vitro Lung Model Market Size Outlook- Companies plan for focused investments in a changing environment**

The US continues to remain the market leader in North America, driven by a large consumer base, the presence of well-established providers, and a strong end-user industry demand. Leading companies focus on new product launches in the changing environment. The US economy is expected to grow in 2024 (around 2.2% growth in 2024), potentially driving demand for various In Vitro Lung Model market segments. Similarly, Strong end-user demand is encouraging Canadian In Vitro Lung Model companies to invest in niche segments. Further, as Mexico continues to strengthen its trade relations and invest in technological advancements, the Mexico In Vitro Lung Model market is expected to experience significant expansion, offering lucrative opportunities for both domestic and international stakeholders.

**Europe In Vitro Lung Model Market Size Outlook-Companies investing in assessing consumers, categories, competitors, and capabilities**

The German industry remains the major market for companies in the European In Vitro Lung Model industry with consumers in Germany, France, the UK, Spain, Italy, and others anticipated to register a steady demand throughout the forecast period, driving the overall market prospects. In addition, the proactive approach of businesses in identifying and leveraging new growth prospects positions the European In Vitro Lung Model market for an upward trajectory, fostering both domestic and international interest. Leading brands operating in the industry are emphasizing effective marketing strategies, innovative product offerings, and a keen understanding of consumer preferences.

**Asia Pacific In Vitro Lung Model Market Size Outlook- an attractive hub for opportunities for both local and global companies**

The increasing prevalence of indications, robust healthcare expenditure, and increasing investments in healthcare infrastructure drive the demand for In Vitro Lung Model in Asia Pacific. In particular, China, India, and South East Asian In Vitro Lung Model markets present a compelling outlook for 2030, acting as a magnet for both domestic and multinational manufacturers seeking growth opportunities. Similarly, with a burgeoning population and a rising middle class, India offers a vast consumer market.

Japanese and Korean companies are quickly aligning their strategies to navigate changes, explore new markets, and enhance their competitive edge. Our report utilizes in-depth interviews with industry experts and comprehensive data analysis to provide a comprehensive outlook of 6 major markets in the region.

**Latin America In Vitro Lung Model Market Size Outlook-** Continued urbanization and rising income levels

Rising income levels contribute to greater purchasing power among consumers, spurring consumption and creating opportunities for market expansion. Continued urbanization and rising income levels are expected to sustainably drive consumption growth in the medium to long term.

**Middle East and Africa In Vitro Lung Model Market Size Outlook-** continues its upward trajectory across segments

Robust demand from Middle Eastern countries including Saudi Arabia, the UAE, Qatar, Kuwait, and other GCC countries supports the overall Middle East In Vitro Lung Model market potential. Fueled by increasing healthcare expenditure of individuals, growing population, and high prevalence across a few markets drives the demand for In Vitro Lung Model.

**In Vitro Lung Model Market Company Profiles**

The global In Vitro Lung Model market is characterized by intense competitive conditions with leading companies opting for aggressive marketing to gain market shares. The report presents business descriptions, SWOT analysis, growth strategies, and financial profiles. Leading companies included in the study are Epithelix, MATTEK, Lonza, Emulate, AlveoliX AG, Nortis, CN Bio Innovations Ltd., MIMETAS, InSphero, ATTC Global

**Recent In Vitro Lung Model Market Developments**

The global In Vitro Lung Model market study presents recent market news and developments including new product launches, mergers, acquisitions, expansions, product approvals, and other updates in the industry.

**In Vitro Lung Model Market Report Scope**

Parameters: Revenue, Volume Price

Study Period: 2023 (Base Year); 2018- 2023 (Historic Period); 2024- 2030 (Forecast Period)

Currency: USD; (Upon request, can be provided in Euro, JPY, GBP, and other Local Currency)

## Qualitative Analysis

Pricing Analysis

Value Chain Analysis

SWOT Profile

Market Dynamics- Trends, Drivers, Challenges

Porter's Five Forces Analysis

Macroeconomic Impact Analysis

Case Scenarios- Low, Base, High

## Market Segmentation:

By Type

2D Model

3D Model

By Application

Drug discovery and toxicology studies

Physiological research

3D Model development

Others

By End-User

Academic research institutes

Pharmaceutical and biotechnology companies

Others

Geographical Segmentation:

North America (3 markets)

Europe (6 markets)

Asia Pacific (6 markets)

Latin America (3 markets)

Middle East Africa (5 markets)

Companies

Epithelix

MATTEK

Lonza

Emulate

AlveoliX AG

Nortis

CN Bio Innovations Ltd.

MIMETAS

InSphero

ATTC Global

Formats Available: Excel, PDF, and PPT



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## **3D MODEL**

By Application

Drug discovery and toxicology studies

Physiological research

## **3D MODEL DEVELOPMENT**

Others

By End-User

Academic research institutes

Pharmaceutical and biotechnology companies

Others

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Epithelix

MATTEK

Lonza

Emulate

AlveoliX AG

Nortis

CN Bio Innovations Ltd.

MIMETAS

InSphero

ATTC Global

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