

Global Kidney Chip Market Research Report 2024(Status and Outlook)

<https://marketpublishers.com/r/GE931C23C3ADEN.html>

Date: December 2024

Pages: 159

Price: US\$ 2,800.00 (Single User License)

ID: GE931C23C3ADEN

Abstracts

Report Overview

Kidney chips are innovative bioengineered devices that mimic the structure and function of human kidneys. These chips are designed to revolutionize drug testing, disease modeling, and personalized medicine by providing a more accurate representation of human kidney physiology compared to traditional cell cultures or animal models. Kidney chips typically consist of microfluidic channels lined with human kidney cells that can simulate key functions such as filtration, reabsorption, and secretion.

The current market size for kidney chips in 2023 is estimated at approximately USD 45 million. The market is expected to grow at a projected compound annual growth rate (CAGR) of 15.67% from 2024 to 2032, reaching a value of USD 132 million by the end of the forecast period. This growth can be attributed to several key factors driving the market.

One of the primary growth drivers for kidney chips is the increasing demand for more accurate and reliable in vitro models for drug testing and development. Traditional methods often fail to accurately predict human responses to drugs, leading to high failure rates in clinical trials. Kidney chips offer a more physiologically relevant platform for testing drug efficacy and toxicity, thereby reducing costs and time in the drug development process.

Another significant factor fueling market growth is the rising prevalence of kidney diseases worldwide. Chronic kidney disease, acute kidney injury, and other renal disorders are becoming more prevalent, creating a need for better disease models and treatment options. Kidney chips provide researchers with a tool to study disease

mechanisms, test potential therapies, and ultimately develop personalized treatment strategies for patients with kidney disorders.

In terms of market trends, there is a noticeable shift towards the development of more complex and integrated kidney chip models. Researchers are incorporating additional cell types, such as immune cells or vascular cells, into kidney chips to better mimic the in vivo microenvironment of the kidney. This trend towards multi-organ systems and organ-on-a-chip platforms is expected to enhance the predictive power of kidney chips and expand their applications in drug screening and disease modeling.

Furthermore, there is a growing emphasis on the use of artificial intelligence (AI) and machine learning algorithms to analyze the vast amount of data generated by kidney chips. These technologies can help researchers identify subtle patterns, predict drug responses, and optimize experimental conditions, thereby accelerating the pace of research and discovery in the field of kidney chip technology.

In terms of regional market distribution, North America currently leads the market for kidney chips, driven by a strong presence of pharmaceutical and biotechnology companies, well-established research infrastructure, and supportive regulatory environment. Europe and Asia-Pacific are also significant markets for kidney chips, with increasing investments in research and development activities related to organ-on-a-chip technologies.

Despite the promising growth prospects, the market for kidney chips faces several challenges. These include the high cost of developing and commercializing kidney chip technologies, regulatory hurdles associated with validating their efficacy and safety for drug testing, and the need for standardization and scalability of chip manufacturing processes. Overcoming these challenges will be crucial for the widespread adoption of kidney chips in pharmaceutical research and clinical applications.

This report provides a deep insight into the global Kidney Chip market covering all its essential aspects. This ranges from a macro overview of the market to micro details of the market size, competitive landscape, development trend, niche market, key market drivers and challenges, SWOT analysis, value chain analysis, etc.

The analysis helps the reader to shape the competition within the industries and strategies for the competitive environment to enhance the potential profit. Furthermore, it provides a simple framework for evaluating and accessing the position of the business organization. The report structure also focuses on the competitive landscape of the

Global Kidney Chip Market, this report introduces in detail the market share, market performance, product situation, operation situation, etc. of the main players, which helps the readers in the industry to identify the main competitors and deeply understand the competition pattern of the market.

In a word, this report is a must-read for industry players, investors, researchers, consultants, business strategists, and all those who have any kind of stake or are planning to foray into the Kidney Chip market in any manner.

Global Kidney Chip Market: Market Segmentation Analysis

The research report includes specific segments by region (country), manufacturers, Type, and Application. Market segmentation creates subsets of a market based on product type, end-user or application, Geographic, and other factors. By understanding the market segments, the decision-maker can leverage this targeting in the product, sales, and marketing strategies. Market segments can power your product development cycles by informing how you create product offerings for different segments.

Key Company

Emulate

Mimetas

TissUse

Valo Health

CN Bio Innovations

Hesperos

Draper Laboratory

Nortis

Micronit Microtechnologies B.V.

Kirkstall

Cherry Biotech SAS

Else Kooi Laboratory

Altis Biosystems

Bi/ond

Netri

Wyss Institute

Market Segmentation (by Type)

Children

Adults

Other

Market Segmentation (by Application)

Pharmaceutical & Biotechnology Companies

Academic & Research Institutes

Cosmetics Industry

Others

Geographic Segmentation

North America (USA, Canada, Mexico)

Europe (Germany, UK, France, Russia, Italy, Rest of Europe)

Asia-Pacific (China, Japan, South Korea, India, Southeast Asia, Rest of Asia-Pacific)

South America (Brazil, Argentina, Columbia, Rest of South America)

The Middle East and Africa (Saudi Arabia, UAE, Egypt, Nigeria, South Africa, Rest of MEA)

Key Benefits of This Market Research:

Industry drivers, restraints, and opportunities covered in the study

Neutral perspective on the market performance

Recent industry trends and developments

Competitive landscape & strategies of key players

Potential & niche segments and regions exhibiting promising growth covered

Historical, current, and projected market size, in terms of value

In-depth analysis of the Kidney Chip Market

Overview of the regional outlook of the Kidney Chip Market:

Key Reasons to Buy this Report:

Access to date statistics compiled by our researchers. These provide you with historical and forecast data, which is analyzed to tell you why your market is set to change

This enables you to anticipate market changes to remain ahead of your competitors

You will be able to copy data from the Excel spreadsheet straight into your marketing plans, business presentations, or other strategic documents

The concise analysis, clear graph, and table format will enable you to pinpoint

the information you require quickly

Provision of market value (USD Billion) data for each segment and sub-segment

Indicates the region and segment that is expected to witness the fastest growth as well as to dominate the market

Analysis by geography highlighting the consumption of the product/service in the region as well as indicating the factors that are affecting the market within each region

Competitive landscape which incorporates the market ranking of the major players, along with new service/product launches, partnerships, business expansions, and acquisitions in the past five years of companies profiled

Extensive company profiles comprising of company overview, company insights, product benchmarking, and SWOT analysis for the major market players

The current as well as the future market outlook of the industry concerning recent developments which involve growth opportunities and drivers as well as challenges and restraints of both emerging as well as developed regions

Includes in-depth analysis of the market from various perspectives through Porter's five forces analysis

Provides insight into the market through Value Chain

Market dynamics scenario, along with growth opportunities of the market in the years to come

6-month post-sales analyst support

Customization of the Report

In case of any queries or customization requirements, please connect with our sales team, who will ensure that your requirements are met.

Chapter Outline

Chapter 1 mainly introduces the statistical scope of the report, market division standards, and market research methods.

Chapter 2 is an executive summary of different market segments (by region, product type, application, etc), including the market size of each market segment, future development potential, and so on. It offers a high-level view of the current state of the Kidney Chip Market and its likely evolution in the short to mid-term, and long term.

Chapter 3 makes a detailed analysis of the market's competitive landscape of the market and provides the market share, capacity, output, price, latest development plan, merger, and acquisition information of the main manufacturers in the market.

Chapter 4 is the analysis of the whole market industrial chain, including the upstream and downstream of the industry, as well as Porter's five forces analysis.

Chapter 5 introduces the latest developments of the market, the driving factors and restrictive factors of the market, the challenges and risks faced by manufacturers in the industry, and the analysis of relevant policies in the industry.

Chapter 6 provides the analysis of various market segments according to product types, covering the market size and development potential of each market segment, to help readers find the blue ocean market in different market segments.

Chapter 7 provides the analysis of various market segments according to application, covering the market size and development potential of each market segment, to help readers find the blue ocean market in different downstream markets.

Chapter 8 provides a quantitative analysis of the market size and development potential of each region and its main countries and introduces the market development, future development prospects, market space, and capacity of each country in the world.

Chapter 9 introduces the basic situation of the main companies in the market in detail, including product sales revenue, sales volume, price, gross profit margin, market share, product introduction, recent development, etc.

Chapter 10 provides a quantitative analysis of the market size and development potential of each region in the next five years.

Chapter 11 provides a quantitative analysis of the market size and development potential of each market segment (product type and application) in the next five years.

Chapter 12 is the main points and conclusions of the report.

Contents

1 RESEARCH METHODOLOGY AND STATISTICAL SCOPE

1.1 Market Definition and Statistical Scope of Kidney Chip

1.2 Key Market Segments

1.2.1 Kidney Chip Segment by Type

1.2.2 Kidney Chip Segment by Application

1.3 Methodology & Sources of Information

1.3.1 Research Methodology

1.3.2 Research Process

1.3.3 Market Breakdown and Data Triangulation

1.3.4 Base Year

1.3.5 Report Assumptions & Caveats

2 KIDNEY CHIP MARKET OVERVIEW

2.1 Global Market Overview

2.1.1 Global Kidney Chip Market Size (M USD) Estimates and Forecasts (2019-2032)

2.1.2 Global Kidney Chip Sales Estimates and Forecasts (2019-2032)

2.2 Market Segment Executive Summary

2.3 Global Market Size by Region

2.4 Macroeconomic Analysis

3 KIDNEY CHIP MARKET COMPETITIVE LANDSCAPE

3.1 Global Kidney Chip Sales by Manufacturers (2019-2024)

3.2 Global Kidney Chip Revenue Market Share by Manufacturers (2019-2024)

3.3 Kidney Chip Market Share by Company Type (Tier 1, Tier 2, and Tier 3)

3.4 Global Kidney Chip Average Price by Manufacturers (2019-2024)

3.5 Manufacturers Kidney Chip Sales Sites, Area Served, Product Type

3.6 Kidney Chip Market Competitive Situation and Trends

3.6.1 Kidney Chip Market Concentration Rate

3.6.2 Global 5 and 10 Largest Kidney Chip Players Market Share by Revenue

3.6.3 Mergers & Acquisitions, Expansion

4 KIDNEY CHIP INDUSTRY CHAIN ANALYSIS

4.1 Kidney Chip Industry Chain Analysis

4.2 Market Overview of Key Raw Materials

4.3 Midstream Market Analysis

4.4 Downstream Customer Analysis

5 THE DEVELOPMENT AND DYNAMICS OF KIDNEY CHIP MARKET

5.1 Key Development Trends

5.2 Driving Factors

5.3 Market Challenges

5.4 Market Restraints

5.5 Industry News

5.5.1 New Product Developments

5.5.2 Mergers & Acquisitions

5.5.3 Expansions

5.5.4 Collaboration/Supply Contracts

5.6 Industry Policies

6 KIDNEY CHIP MARKET SEGMENTATION BY TYPE

6.1 Evaluation Matrix of Segment Market Development Potential (Type)

6.2 Global Kidney Chip Sales Market Share by Type (2019-2024)

6.3 Global Kidney Chip Market Size Market Share by Type (2019-2024)

6.4 Global Kidney Chip Price by Type (2019-2024)

7 KIDNEY CHIP MARKET SEGMENTATION BY APPLICATION

7.1 Evaluation Matrix of Segment Market Development Potential (Application)

7.2 Global Kidney Chip Market Sales by Application (2019-2024)

7.3 Global Kidney Chip Market Size (M USD) by Application (2019-2024)

7.4 Global Kidney Chip Sales Growth Rate by Application (2019-2024)

8 KIDNEY CHIP MARKET SALES BY REGION

8.1 Global Kidney Chip Sales by Region

8.1.1 Global Kidney Chip Sales by Region

8.1.2 Global Kidney Chip Sales Market Share by Region

8.2 Global Kidney Chip Market Size by Region

8.2.1 Global Kidney Chip Market Size by Region

8.2.2 Global Kidney Chip Market Size Market Share by Region

8.3 North America

8.3.1 North America Kidney Chip Sales by Country

8.3.2 North America Kidney Chip Market Size by Country

8.3.3 U.S. Market Overview

8.3.4 Canada Market Overview

8.3.5 Mexico Market Overview

8.4 Europe

8.4.1 Europe Kidney Chip Sales by Country

8.4.2 Europe Kidney Chip Market Size by Country

8.4.3 Germany Market Overview

8.4.4 France Market Overview

8.4.5 U.K. Market Overview

8.4.6 Italy Market Overview

8.4.7 Russia Market Overview

8.5 Asia Pacific

8.5.1 Asia Pacific Kidney Chip Sales by Region

8.5.2 China

8.5.3 Japan

8.5.4 South Korea

8.5.5 India

8.5.6 Southeast Asia

8.6 Asia Pacific

8.6.1 Asia Pacific Kidney Chip Market Size by Region

8.6.2 Asia Pacific Kidney Chip Market Size by Region

8.6.3 China

8.6.4 Japan

8.6.5 South Korea

8.6.6 India

8.6.7 Southeast Asia

8.7 South America

8.7.1 South America Kidney Chip Sales by Country

8.7.2 South America Kidney Chip Market Size by Country

8.7.3 Brazil

8.7.4 Argentina

8.7.5 Columbia

8.8 Middle East and Africa

8.8.1 Middle East and Africa Kidney Chip Sales by Region

8.8.2 Middle East and Africa Kidney Chip Market Size by Region

8.8.3 Saudi Arabia

- 8.8.4 UAE
- 8.8.5 Egypt
- 8.8.6 Nigeria
- 8.8.7 South Africa

9 KIDNEY CHIP MARKET PRODUCTION BY REGION

- 9.1 Global Production of Kidney Chip by Region (2019-2024)
- 9.2 Global Kidney Chip Revenue Market Share by Region (2019-2024)
- 9.3 Global Kidney Chip Production, Revenue, Price and Gross Margin (2019-2024)
- 9.4 North America Kidney Chip Production
 - 9.4.1 North America Kidney Chip Production Growth Rate (2019-2024)
 - 9.4.2 North America Kidney Chip Production, Revenue, Price and Gross Margin (2019-2024)
- 9.5 Europe Kidney Chip Production
 - 9.5.1 Europe Kidney Chip Production Growth Rate (2019-2024)
 - 9.5.2 Europe Kidney Chip Production, Revenue, Price and Gross Margin (2019-2024)
- 9.6 Japan Kidney Chip Production (2019-2024)
 - 9.6.1 Japan Kidney Chip Production Growth Rate (2019-2024)
 - 9.6.2 Japan Kidney Chip Production, Revenue, Price and Gross Margin (2019-2024)
- 9.7 China Kidney Chip Production (2019-2024)
 - 9.7.1 China Kidney Chip Production Growth Rate (2019-2024)
 - 9.7.2 China Kidney Chip Production, Revenue, Price and Gross Margin (2019-2024)

10 KEY COMPANIES PROFILE

- 10.1 Emulate
 - 10.1.1 Emulate Kidney Chip Basic Information
 - 10.1.2 Emulate Kidney Chip Product Overview
 - 10.1.3 Emulate Kidney Chip Product Market Performance
 - 10.1.4 Emulate Business Overview
 - 10.1.5 Emulate Kidney Chip SWOT Analysis
 - 10.1.6 Emulate Recent Developments
- 10.2 Mimetas
 - 10.2.1 Mimetas Kidney Chip Basic Information
 - 10.2.2 Mimetas Kidney Chip Product Overview
 - 10.2.3 Mimetas Kidney Chip Product Market Performance
 - 10.2.4 Mimetas Business Overview
 - 10.2.5 Mimetas Kidney Chip SWOT Analysis

- 10.2.6 Mimetas Recent Developments
- 10.3 TissUse
 - 10.3.1 TissUse Kidney Chip Basic Information
 - 10.3.2 TissUse Kidney Chip Product Overview
 - 10.3.3 TissUse Kidney Chip Product Market Performance
 - 10.3.4 TissUse Kidney Chip SWOT Analysis
 - 10.3.5 TissUse Business Overview
 - 10.3.6 TissUse Recent Developments
- 10.4 Valo Health
 - 10.4.1 Valo Health Kidney Chip Basic Information
 - 10.4.2 Valo Health Kidney Chip Product Overview
 - 10.4.3 Valo Health Kidney Chip Product Market Performance
 - 10.4.4 Valo Health Business Overview
 - 10.4.5 Valo Health Recent Developments
- 10.5 CN Bio Innovations
 - 10.5.1 CN Bio Innovations Kidney Chip Basic Information
 - 10.5.2 CN Bio Innovations Kidney Chip Product Overview
 - 10.5.3 CN Bio Innovations Kidney Chip Product Market Performance
 - 10.5.4 CN Bio Innovations Business Overview
 - 10.5.5 CN Bio Innovations Recent Developments
- 10.6 Hesperos
 - 10.6.1 Hesperos Kidney Chip Basic Information
 - 10.6.2 Hesperos Kidney Chip Product Overview
 - 10.6.3 Hesperos Kidney Chip Product Market Performance
 - 10.6.4 Hesperos Business Overview
 - 10.6.5 Hesperos Recent Developments
- 10.7 Draper Laboratory
 - 10.7.1 Draper Laboratory Kidney Chip Basic Information
 - 10.7.2 Draper Laboratory Kidney Chip Product Overview
 - 10.7.3 Draper Laboratory Kidney Chip Product Market Performance
 - 10.7.4 Draper Laboratory Business Overview
 - 10.7.5 Draper Laboratory Recent Developments
- 10.8 Nortis
 - 10.8.1 Nortis Kidney Chip Basic Information
 - 10.8.2 Nortis Kidney Chip Product Overview
 - 10.8.3 Nortis Kidney Chip Product Market Performance
 - 10.8.4 Nortis Business Overview
 - 10.8.5 Nortis Recent Developments
- 10.9 Micronit Microtechnologies B.V.

- 10.9.1 Micronit Microtechnologies B.V. Kidney Chip Basic Information
- 10.9.2 Micronit Microtechnologies B.V. Kidney Chip Product Overview
- 10.9.3 Micronit Microtechnologies B.V. Kidney Chip Product Market Performance
- 10.9.4 Micronit Microtechnologies B.V. Business Overview
- 10.9.5 Micronit Microtechnologies B.V. Recent Developments
- 10.10 Kirkstall
 - 10.10.1 Kirkstall Kidney Chip Basic Information
 - 10.10.2 Kirkstall Kidney Chip Product Overview
 - 10.10.3 Kirkstall Kidney Chip Product Market Performance
 - 10.10.4 Kirkstall Business Overview
 - 10.10.5 Kirkstall Recent Developments
- 10.11 Cherry Biotech SAS
 - 10.11.1 Cherry Biotech SAS Kidney Chip Basic Information
 - 10.11.2 Cherry Biotech SAS Kidney Chip Product Overview
 - 10.11.3 Cherry Biotech SAS Kidney Chip Product Market Performance
 - 10.11.4 Cherry Biotech SAS Business Overview
 - 10.11.5 Cherry Biotech SAS Recent Developments
- 10.12 Else Kooi Laboratory
 - 10.12.1 Else Kooi Laboratory Kidney Chip Basic Information
 - 10.12.2 Else Kooi Laboratory Kidney Chip Product Overview
 - 10.12.3 Else Kooi Laboratory Kidney Chip Product Market Performance
 - 10.12.4 Else Kooi Laboratory Business Overview
 - 10.12.5 Else Kooi Laboratory Recent Developments
- 10.13 Altis Biosystems
 - 10.13.1 Altis Biosystems Kidney Chip Basic Information
 - 10.13.2 Altis Biosystems Kidney Chip Product Overview
 - 10.13.3 Altis Biosystems Kidney Chip Product Market Performance
 - 10.13.4 Altis Biosystems Business Overview
 - 10.13.5 Altis Biosystems Recent Developments
- 10.14 Bi/ond
 - 10.14.1 Bi/ond Kidney Chip Basic Information
 - 10.14.2 Bi/ond Kidney Chip Product Overview
 - 10.14.3 Bi/ond Kidney Chip Product Market Performance
 - 10.14.4 Bi/ond Business Overview
 - 10.14.5 Bi/ond Recent Developments
- 10.15 Netri
 - 10.15.1 Netri Kidney Chip Basic Information
 - 10.15.2 Netri Kidney Chip Product Overview
 - 10.15.3 Netri Kidney Chip Product Market Performance

10.15.4 Netri Business Overview

10.15.5 Netri Recent Developments

10.16 Wyss Institute

10.16.1 Wyss Institute Kidney Chip Basic Information

10.16.2 Wyss Institute Kidney Chip Product Overview

10.16.3 Wyss Institute Kidney Chip Product Market Performance

10.16.4 Wyss Institute Business Overview

10.16.5 Wyss Institute Recent Developments

11 KIDNEY CHIP MARKET FORECAST BY REGION

11.1 Global Kidney Chip Market Size Forecast

11.2 Global Kidney Chip Market Forecast by Region

11.2.1 North America Market Size Forecast by Country

11.2.2 Europe Kidney Chip Market Size Forecast by Country

11.2.3 Asia Pacific Kidney Chip Market Size Forecast by Region

11.2.4 South America Kidney Chip Market Size Forecast by Country

11.2.5 Middle East and Africa Forecasted Sales of Kidney Chip by Country

12 FORECAST MARKET BY TYPE AND BY APPLICATION (2025-2032)

12.1 Global Kidney Chip Market Forecast by Type (2025-2032)

12.1.1 Global Forecasted Sales of Kidney Chip by Type (2025-2032)

12.1.2 Global Kidney Chip Market Size Forecast by Type (2025-2032)

12.1.3 Global Forecasted Price of Kidney Chip by Type (2025-2032)

12.2 Global Kidney Chip Market Forecast by Application (2025-2032)

12.2.1 Global Kidney Chip Sales (K Units) Forecast by Application

12.2.2 Global Kidney Chip Market Size (M USD) Forecast by Application (2025-2032)

13 CONCLUSION AND KEY FINDINGS

I would like to order

Product name: Global Kidney Chip Market Research Report 2024(Status and Outlook)

Product link: <https://marketpublishers.com/r/GE931C23C3ADEN.html>

Price: US\$ 2,800.00 (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/GE931C23C3ADEN.html>