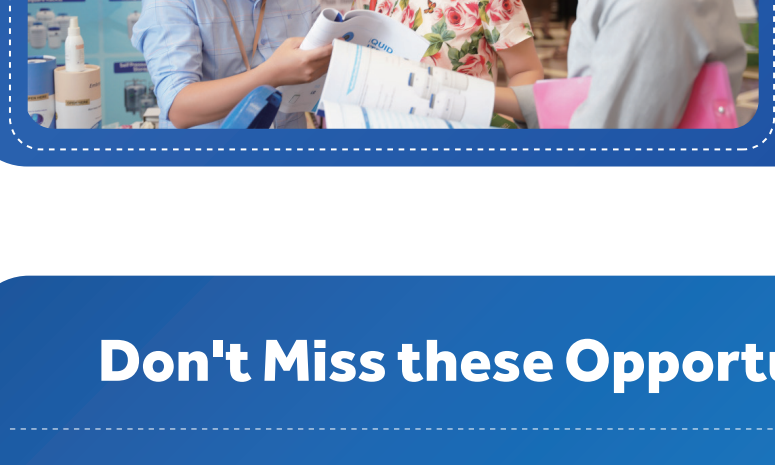


Haier Biomedical @ 2023 Vietnam IVF

The 18th IVF Vietnam successfully concluded more recently, gathering experts from IVF laboratories across different countries to exchange latest research progress in the field of in vitro fertilization (IVF) science. The IVF Expert Meeting holds significant importance as an annual meeting in the field of Assisted Reproductive Technology (ART) in Vietnam, which has consistently taken place each year since 2015. During a recent meeting, Haier Biomedical, a leading Chinese company specializing in digital scenario solutions for life sciences and medical innovation, showcased its latest research findings to attendees, including customers and partners. This event also served as a platform for Haier Biomedical to highlight its team's valuable contributions to scientific and technological innovation in the fields of life sciences and healthcare, and promote high-quality development within the industry.



The two-day meeting of IVF specialists saw a significant turnout, the Haier Biomedical booth garnered considerable attention from many delegates and fostered a continuous flow of exchanges, receiving commendable appraisal and recognition from delegates, who expressed keen interest in the products.



During the event, lucrative preferential offers were made to clients who placed orders at the event, attracting many clients to promptly sign their orders on the spot. A client praised the Liquid Nitrogen Container developed by Haier Biomedical, stating that it "surpasses traditional Liquid Nitrogen Containers, and is convenient and intelligent, making it highly suitable for the needs of modern users."



Conference of 18th IVF Vietnam Exhibition

Haier Biomedical will continue to further advance digital scenario solutions in the fields of life sciences and medical innovation by leveraging "Chinese wisdom," with a strong emphasis on meeting user requirements, delivering value, and striving to provide its users with the best experience, which reflect the company's ongoing efforts to contribute to the advancement of global healthcare sector.

Don't Miss these Opportunities to Meet the Team!



Belford Hospital Add Haier Biomedical

Belford Hospital, situated in the picturesque town of Fort William within the Highlands stands as a crucial NHS Highlands healthcare hub serving both locals and visitors in the surrounding areas. With its tranquil backdrop of stunning Scottish landscapes, the hospital provides a vital lifeline of medical care and services including blood transfusion.

The blood transfusion department recently added Haier Biomedical blood bank refrigerators to their cold storage facility. Ensuring a steady and safe supply of blood products, the hospital's transfusion services save lives and support critical medical procedures.



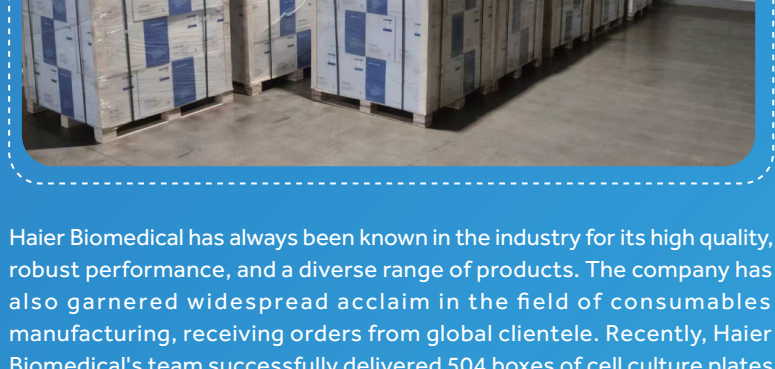
The new refrigerators received a glowing testimonial from the blood bank staff, "We are loving our new blood fridges, they look good, are easy to operate, open with a card and the thermal control in them is wonderful. It's the best temperature mapping we've seen across our appliances".

Blood Transfusion is a vital component of the comprehensive care that underscores Belford Hospital's commitment to meeting the diverse medical needs of the local community and upholding their reputation as a reliable healthcare cornerstone in the Scottish Highlands.

Haier Biomedical's blood bank refrigerators are engineered with precision; these refrigerators offer a controlled environment that ensures the integrity and safety of vital blood products. Their advanced features, including temperature stability, secure storage with NFC card access, and efficient organization, empower healthcare institutions like Belford Hospital to optimize their blood transfusion services. Haier's commitment to quality and reliability makes their blood bank refrigerators an indispensable asset in safeguarding the precious gift of life through effective blood management.

Haier Biomedical Consumables, Optimal Cell Adhesion Performance : First Line to Efficient Experiments

There is currently a surge in demand for healthcare services due to sustained growth in global medical technology, increased investment in healthcare, and heightened health awareness among people, all of which, in turn, drive the rapid development of the medical consumables industry. Data available revealed that the global medical consumables industry has a market size of USD 271.27 billion in 2021, representing a significant year-on-year growth rate of 19.2%. The industry size is expected to grow to USD 365.29 billion by 2025. In an era where laboratory safety and convenience are receiving more attention, researchers are expressing a growing need for consumables that align with the desired standards of quality, type, and performance.

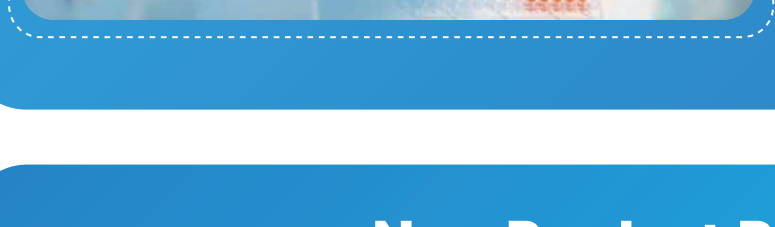


Haier Biomedical has always been known in the industry for its high quality, robust performance, and a diverse range of products. The company has also garnered widespread acclaim in the field of consumables manufacturing, receiving orders from global clientele. Recently, Haier Biomedical's team successfully delivered 504 boxes of cell culture plates to a client in Taiwan, China; they overcame the challenges of long lead time and difficult scheduling of new products, and flawlessly delivered the products on schedule while ensuring product quality.

"Our company operates in the medical testing and regenerative medicine industry, and we require a significant quantity of consumables as part of our project. Because the cell culture plate can save time and reagent material costs for conducting cell experiments, and also simultaneously set up multiple dynamic variables to facilitate the observation and detection, it is a commonly used and indispensable consumables in the realm of cell culture experiments."

Following a series of rigorous tests and comparisons, the client has expressed their satisfaction with Haier Biomedical's cell culture plates, specifically highlighting the products' treated surface for optimal cell adhesion performance, which, in turn, facilitates better growth of cultured cells.

Haier Biomedical consumables stand out for its excellent production process as well as its adherence to stringent quality production standards, making it a preferred option for many clients.



01. High-quality Materials Used

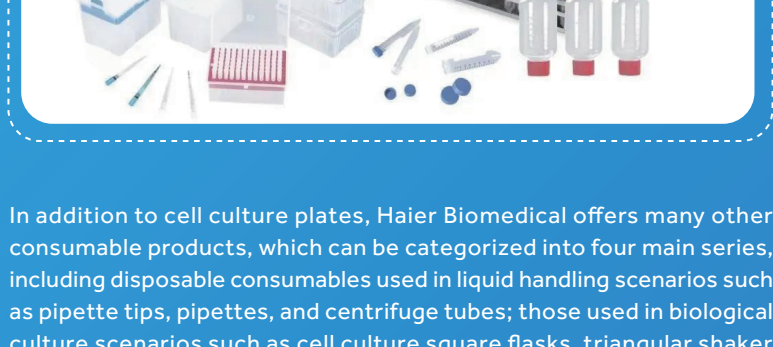
Haier Biomedical's cell culture plates are made of high-quality polystyrene (PS), which is a material known for its exceptional strength and high transparency. The plates also have a smooth surface, excellent structural stability, and good chemical resistance towards aqueous solutions.

02. Sterile Product Free From DNase, RNase, Pyrogen, and Endotoxin

DNase (Deoxyribonuclease) and RNase (Ribonuclease) can degrade nucleic acids (DNA or RNA) specifically through the process of hydrolysis. Haier Biomedical's cell culture plates have passed the GB/T16886 biocompatibility test and met the stringent requirements for sterility and endotoxin levels, which ensure an optimal environment for cell growth that is crucial for accurate experimental results.

03. Open Exterior

Traditional cell culture plates are highly susceptible to the risk of cross-contamination during experiments. However, Haier Biomedical's products are designed with a unidirectional plate cover with a coagulation ring, which helps reduce the risk of cross-contamination between samples. The uniform size of the products also facilitates their stacking and transportation, enabling a more convenient culture process.



In addition to cell culture plates, Haier Biomedical offers many other consumable products, which can be categorized into four main series, including disposable consumables used in liquid handling scenarios such as pipette tips, pipettes, and centrifuge tubes; those used in biological culture scenarios such as cell culture square flasks, triangular shaker flasks, and microbial petri dishes of various specifications; those used in sample storage scenarios such as reagent flasks cater to different types of reagent storage needs, pre-coded cryopreservation tubes and cassettes, and aesthetically pleasing cryopreservation racks; those used in PCR reaction scenarios such as PCR tubes and PCR plates. The company has an extensive layout in the field of laboratory disposable plastic consumables, and is committed to promptly providing its clients with cost-effective, highly reliable, and on-demand customized laboratory consumables solutions.

High-quality consumables play a crucial role in ensuring the accuracy of experimental research and making contributions to the advancement of medicine, and Haier Biomedical's significant strides in the laboratory consumables market have opened up a new chapter in the progress of smart laboratories. In the future, as means to contribute its expertise to the advancement of life sciences, Haier Biomedical will remain committed to meeting the diverse requirements of its clients and aiming to provide clients with more comprehensive scenario solutions.

New Product Recommendation

Benchtop High-speed Centrifuge

Models: LX-165T2-J



- Active balance detection
- Anti vibration lid lock
- Triple-layer protection
- Automatic rotor identification
- High efficiency air cooling technology

[Read More](#)

Benchtop High-speed Refrigerated Centrifuge

Models: LX-155T500R



- Real-time Monitoring and Alarms
- Precise Temperature Control and Ultra-fast Refrigeration
- Smart Anti Vibration Lock
- Precise Speed Control

[Read More](#)

Full Opening CryoBio

Models: CryoBio 34Z



- Full Opening Design, Easy to Access
- Reduced Frosting and Freezing
- Brand-new Intelligent Monitoring System
- Double Lock for Double Protection

[Read More](#)

CryoBio 13

Models: CryoBio 13



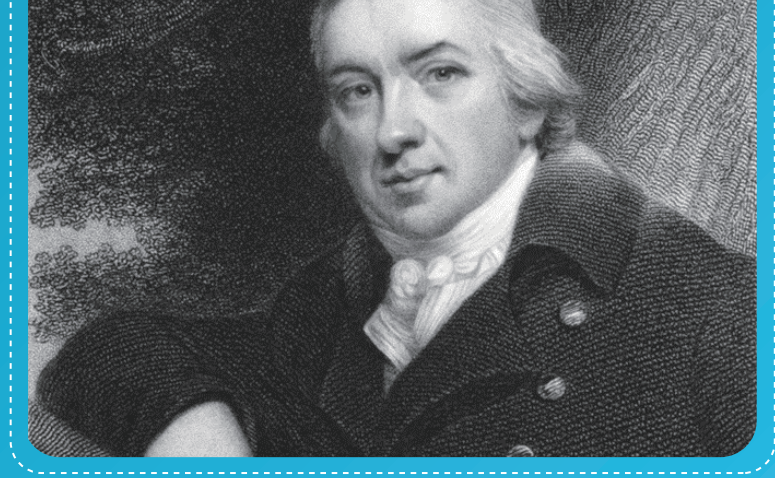
- Completely New Designed Third Generation
- New Frost-Free Design
- 10-inch LCD Screen
- Multiple Security Options
- Auto Liquid Filling System

[Read More](#)

A Vaccine's Journey: Bridging Healing Across Continents

World's First Vaccine

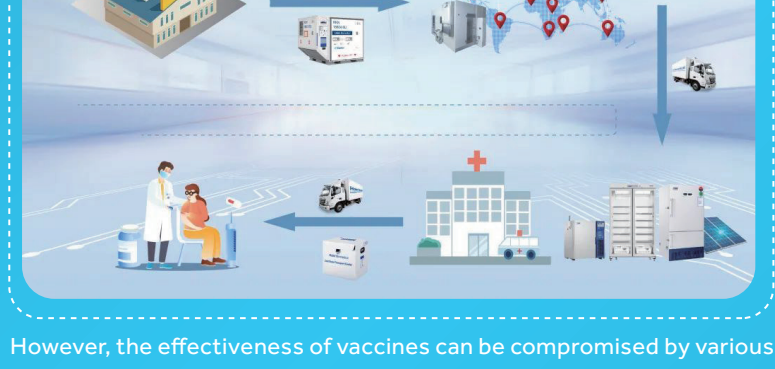
Edward Jenner was born in Berkeley, England about three centuries ago amidst a grave health crisis, during which a highly contagious and fatal disease known as "smallpox" plagued the populace, killing nearly 45,000 people annually in the United Kingdom alone. Upon returning to his hometown, Jenner, who had dedicated himself to the study of anatomy and medicine from 12 years old, discovered cowpox, a disease exhibiting symptoms of striking resemblances to smallpox. After devoting nearly 20 years of his life to thorough observation and meticulous analysis, he daringly proposed that "inoculating humans with cowpox pus could potentially give them the ability to fight smallpox."



In 1796, Jenner used a clean knife to create multiple minor incisions on the arm of a young boy and administered drops of cowpox pus onto these wounds, thereby pioneering what is now recognized as the first vaccine for humans. The boy had successfully recovered from the mild symptoms of cowpox, and avoided any subsequent infection with the smallpox virus. Through his research, Jenner had successfully demonstrated the correlation between cowpox and immunity against smallpox, and as a result, he was honored as the Father of Immunology.

Cold Chain Transportation of Vaccines

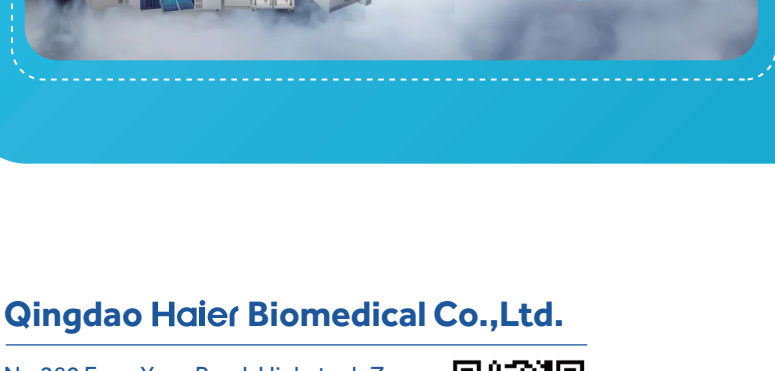
Over the course of the past two centuries since the discovery of vaccines, significant technological advancements have fueled the development of a wide array of vaccine types. Consequently, the vaccine transportation industry has emerged to cater to the rising demand for vaccines. From the initial production stages to the final inoculation process, the vaccine cold-chain transportation sector presents huge business prospects. Available statistics show that the successful development of the COVID-19 vaccine has resulted in a significant surge in the cold chain transportation market; the growth rate this market experienced surpassed 7.2 times its previous value, and the potential market space for this industry is in the range of tens of billions of dollars. According to industry insiders, the launch of the COVID-19 vaccine will usher in a favorable period of transportation and advancement for the entire pharmaceutical cold chain industry.



However, the effectiveness of vaccines can be compromised by various factors, including high temperature, freezing conditions, and prolonged exposure to light. Therefore, it is imperative that they are stored, transported, and used within specific temperature conditions to maintain the integrity of vaccines throughout the transportation process. In other words, an uninterrupted cold chain must be ensured from the manufacturers to the vaccination units, with real-time monitoring. To achieve this, it is essential to formulate a transportation plan in advance.

Storage of Vaccines

To maintain the activity of the vaccines, it is crucial to store them in a controlled temperature environment, as they are biological products that require specific temperature conditions. Strict adherence to storage standards for different vaccines is also crucial, both within laboratory settings and vaccination units. The storage conditions for vaccines vary depending on their respective characteristics and manufacturing processes. Inactivated vaccines, viral vector vaccines, and recombinant protein vaccines are typically stored under temperatures between 2°C and 8°C, while live attenuated vaccines are stored under temperatures typically below -20°C. Meanwhile, mRNA vaccines, which are the third generation of vaccines following inactivated, live attenuated, and viral vector vaccines, exhibit comparatively lower stability compared to other vaccine types. For example, Pfizer's vaccine requires storage at ultra-low temperatures, ranging from -80°C to -60°C, and remains stable for only 2 hours after thawing at room temperature, and Moderna's Spikevax vaccine, while relatively more stable, still requires storage within a -20°C environment.



The World Health Organization predicts that on a global scale, about 50% of vaccines are wasted every year, which is largely due to the inadequate availability of temperature control systems and equipment facilities. The pharmaceutical cold chain transportation sector holds a prominent position within the cold chain industry market, and in particular, the vaccine transportation within the cold chain has high and stringent requirements to maintain optimal conditions throughout the entire process. According to Air Cargo International, "Temperature will be one of the biggest challenges in transportation."

How To Ensure Vaccine Safety?

So, how can we ensure the safety of vaccines during transportation and storage? To address this concern, Haier Biomedical has offered a comprehensive range of vaccine cold chain solutions, which not only encompass products that cater to all temperature requirements, but also include advanced vaccine stockpile monitoring solutions, allowing for 24-hour temperature monitoring and automatic alarms for any irregularities, thereby maximizing vaccine safety.

First, transportation and storage products should be equipped with cutting-edge international advanced RFID technology, which is a wireless communication technology that enables the identification of targets through non-contact data communication between the reader and the tag. Through this technology, users can not only monitor the temperature of vaccines in real time, but also obtain accurate vaccine inventory information. It also optimizes the procurement process, effectively addressing the issue of stock build-up and vaccine shortages. For example, the Haier Biomedical HYC-390R RFID refrigerator, equipped with full process automation and intelligent control features, can automatically detect and monitor the information and access status of vaccines in real time, ensuring that all vaccines administered to patients are systematically managed. At the same time, the intelligent process control system improves the efficiency and reliability of vaccine management, and enables the monitoring of expiration dates and facilitates automatic inventory counting, thereby reducing the need for manual labor and minimizing the risk of management errors.

In addition, low-temperature storage and IoT technology should be incorporated throughout the entire vaccine storage process. The equipment should be equipped with an IoT monitoring module and an intelligent IoT sample management system that enables it to perform real-time monitoring and alarm functions for both the temperature inside the box and the operation status of the equipment, thereby ensuring vaccine safety round the clock. In June of this year, a janitor employed at the Rensselaer Polytechnic Institute turned off an ultra-low-temperature refrigerator, an action prompted by a malfunctioning alarm system, which ultimately led to the irreparable loss of 25 years' worth of research and a financial setback of up to USD 1 million. This incident further highlights the necessity of 24-hour monitoring and excellent heat preservation capabilities for refrigerators used to store biological samples. The Haier Biomedical Ultra-Low Temperature Refrigerator has an impressive heat preservation time of more than 60 hours after power failure, which equips the refrigerator to effectively handle various emergency situations.

Meanwhile, by incorporating a display module, an information storage and processing module, and a BIMS system on the equipment, the Haier Biomedical Ultra-Low Temperature Refrigerator can accurately identify and record the location where vaccines are stored based on their respective labels, a feat made possible by using a scanning system. This allows for users' one-click synchronization and seamless access to vaccines, thereby greatly reducing the time investment required for their work. In addition, RFID technology employed during vaccine storage can play a crucial role in accurately controlling the storage and usage of vaccines, thereby safeguarding vaccine counts and vaccine safety, and ensuring that patients receive properly managed vaccines.



For economically disadvantaged and energy-deficient regions, Haier Biomedical focuses on research and development in solar-powered products and innovates zero-carbon technology for the development of solar vaccine refrigerators. At the same time, to mitigate the impact of equipment operation interruptions or failures in regions with limited energy resources, the company offers a range of solutions, such as the RTMD series that enables remote monitoring and control of high and low temperatures, door opening and closing, automatic logging and detection, real-time alarms, and intelligent management, and the DATA LOGGER temperature logger pen that records equipment temperature in real-time and promptly alerts users to any abnormal temperature fluctuations to ensure vaccine safety in all aspects. The company has also introduced a customized service system, aiming to enhance its products and cater to the specific requirements of its clients, which is expected to improve the convenience and universality of its products within the local region.

Over the centuries, vaccines have transcended the boundaries of time and space, making remarkable contributions to safeguarding the lives and health of people all over the world. Haier Biomedical has also made breakthroughs, successfully overcoming one challenge after another while swiftly expanding its industrial deployment, consistently introducing innovative and forward-looking products, and continuously improving its vaccine cold chain solutions. These efforts have significantly contributed Haier Biomedical's knowledge and expertise to the establishment of a global leading medical and healthcare ecosystem.

