Haier Biomedical
Intelligent Protection of Life Science

-196°C Intelligent Liquid Nitrogen Biological Sample Storage System

Product Introduction

Based on the design concept of "personnel safety, sample safety, and equipment safety", Haier Biomedical has developed the -196°C intelligent liquid nitrogen biological sample storage system through independent innovation to ensure low temperature storage throughout the entire process.

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Product Advantages

Personnel safety

- Fully-automatic access to single and boxed samples saves time and effort
- High-precision servo in combination with flexible robot applications to ensure safety
- Full-scenario intelligent unmanned running, one-key operation, and "0" contact with low temperatures
- Conduct batch operations to streamline work processes and enhance efficiency

Device safety

- The key moving parts are stable and reliable at room temperature
- Professional thermal-insulation drive structure and pyrogen-free storage area
- The collaborative robot of the tube pick-up area is designed to operate stably with a low failure rate.

Exclusive customized services

- Customized design for the user site
- Catering to the different needs of various scenarios

  Supporting interconnection with third-party systems

Sample safety

- Storage safety

  Professional sample storage with low temperature throughout the whole process

  Pyrogen-free main container with uniform temperature

  IoT technology for intelligent positioning to avoid sample loss

- Sample access safety

  Mechanical grippers are used for tube picking, which is accurate and efficient and can avoid fall-off

  Each mechanical gripper has a torque feedback function to avoid tube bursts.

  The independent layout of the tube pick-up area can prevent permanent sample loss

  The main container area is designed with a swivel structure to avoid collision throughout the access process and improve efficiency

- Information safety

  An independently developed software is available to ensure sample safety

  Real-time traceability of the sample information can ensure the whole-process safety of the samples.

Product Parameters

Model	HSN96-46K2	HSN96-24K2
Automatic access level	Single or boxed	Single or boxed
Storage temperature (°C)	<-180	<-180
Storage capacity (for standard SBS 2ml tubes) (Pcs)	46,000	24,000
Exterior dimensions (W*D*H) (mm)	1750*2120*2760	1540*1920*2600
Time required for the storage temperature to recover to -130 °C (H)	≥480	≥480
Maximum liquid nitrogen capacity under the platform (L)	≥320	≥180
Daily static liquid nitrogen consumption (L)	≤25	≤15
Compatibility (ml)	SBS, etc. 0.5/1.5/2 cryogenic tubes	SBS, etc. 0.5/1.5/2 cryogenic tubes

Liquid Nitrogen Transfer Container

Product Introduction

The intelligent liquid nitrogen sample transfer container plays a vital role in ensuring the safe transfer of samples, providing an effective low-temperature environment. Leveraging IoT technology, it enables comprehensive data monitoring throughout the entire transfer process. This high-vacuum container offers long-lasting protection at ultra-low temperatures. Continuing with Haier Biomedical's design concept of prioritizing sample safety, personnel safety, and equipment safety, this container is dedicated to facilitating each sample transfer with utmost care and reliability.

HSN96-01H1

Product Parameters

Model	HSN96-01H1
Size (mm)	256*244*245
Capacity	A single SBS sample box
Empty weight (kg)	4.1±0.05
Thermal insulation performance	A storage environment below -150°C for at least 6 hours (25°C, humidity ≤50%)
Liquid nitrogen capacity (L)	2
IoT function	Temperature collection and upload and GPS positioning
Status alarm	Overtemperature, and inclination;
External interface	USB

*Haier Biomedical reserves the right to change products and specifications without prior notice.