Automated Incubator

Product Introduction

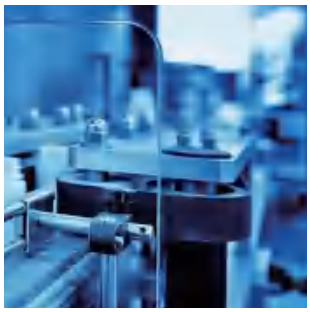
Opentrons Automated Incubator is a high-precision cell culture environmental control device that seamlessly integrates with the Opentrons Flex .It is specifically designed for the long-term stable culture of cells, tissues, and microorganisms, supporting automated cell culture experiments while significantly enhancing process control and experimental efficiency through optimized structural design and intelligent environmental control technology. When used in conjunction with Opentrons Flex, it enables full automation of complex experimental workflows such as organoid culture and high-throughput drug screening, accelerating research and drug development processes.

Opentrons Automated Incubator is equipped with intelligent PID control and a user-friendly interface, combined with a unique heating and air circulation design, enabling precise and stable regulation of key environmental parameters such as temperature, humidity, and CO_2 concentration, ensuring highly uniform and reproducible culture conditions.The device features high-capacity storage and convenient data export functions, along with multiple safety protections and a rapid environment recovery mechanism, effectively ensuring the continuity and reliability of experimental procedures.

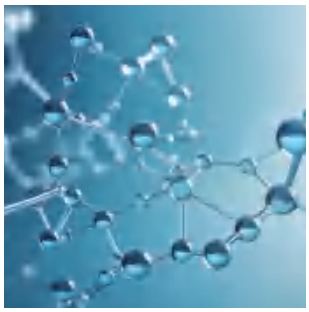
Application

Suitable for the cultivation of cells, tissues, microorganisms, etc., widely used in biomedical research, drug development, microbiological experiments, cell biology research, and other fields, providing a stable environment for experiments requiring precise control of temperature, humidity, and CO_2 concentration.

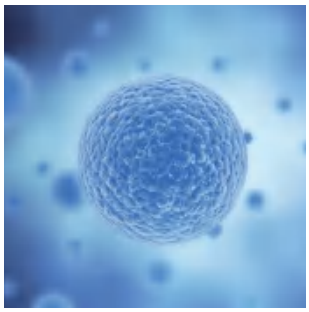
Medical Research



Drug Development



Microbiological Experiments



Cell Biology

Advantages

Excellent Heating and Temperature Control

The six-sided direct heating system provides uniform and rapid heating with fast temperature recovery. Temperature uniformity ≤ ±0.3℃, fluctuation≤ ±0.1℃, ensuring precise control.

Exceptional Gas and Humidity Control

A unique horizontal dual-circulation air duct design ensures uniformity of temperature, humidity, and CO_2 concentration.Imported sensors (Vaisala second-generation infrared CO_2 sensor, humidity sensor) enable automatic compensation and high control accuracy.

Advanced Humidity Management

Utilizes a programmable humidity chamber humidifier, eliminating the need for humidity pans, enabling rapid humidification and avoiding contamination.After 1 minute of door opening, humidity can recover to standard requirements within 25 minutes, with humidity fluctuation≤ ±0.2℃.

Convenient Operation and Maintenance

A 7-inch color touch LED display facilitates operation and monitoring.The inner chamber features seamless welding using 304 antibacterial stainless steel, is aesthetically pleasing and easy to clean.An external water reservoir and a glass door with a test port are included; access time is less than 25 seconds.

Safety, Stability, and Reliability

Equipped with over-temperature alarm, automatic heating cut-off, and parameter memory functions.Filter magnetic rings reduce interference.The outer door is heated to prevent condensation, ensuring a stable experimental environment.

Specifications

Internal Capacity:	178L
Internal Dimensions:	400*510*880mm (W * D * H)
External Dimensions:	550*665*1105mm (W * D * H)
Cell Plate Capacity:	20
Temperature:	Control range: ambient temperature +7°C to 55°C (RT 25°C), Uniformity ≤ ±0.3°C, Fluctuation ±0.1°C (at 37°C)
CO_2 Concentration:	Control range: 0~20%, Accuracy ±0.1% (at 37°C, 5% CO_2)
Humidity:	Range at 25°C: ambient humidity -95% RH, Fluctuation ≤ ±2% (at 37°C)
Sensors:	Imported Vaisala second-generation infrared CO_2 sensor, Imported Vaisala humidity sensor
Configuration:	Main unit x 1, Water reservoir tank x 1, Power cord x 1