Product Specifications

Category	Item	Specifications
Overview	Dimensions	3,420 ㎜ (W) × 1,000 ㎜ (D) × 1,950 ㎜ (H)
	Weight	Approx. 2,200 kg
	Biosafety measures	Equivalent to Class II biosafety cabinets (ISO 5 cleanroom)
	Noise Level	Less than 70dB *(typically 60-65dB)
	Other	On-board computer UPS to address sudden power failures
Main unit of the system	①Incubator	Dedicated racks for 100mm dishes and well plates. (Up to four racks, each rack stores x18 100 ㎜ dishes or x18 well plates) Standard settings : Internal temperature: 37 ℃, CO_2 level : 5 %
	②Imaging	Phase-contrast microscope (LED lighting), with auto focus feature
	③Tilting	X-Y (2D) tilting
	④Centrifuge	1 - 1,500 rpm (approx. 400 G), 15 mL or 50 mL tube
	⑤Plate / dish supply	Dedicated racks for each cell culture plate/dish. (Up to two racks, each rack stores x7 100 ㎜ dishes or x 6 well plates/rack)
	⑥Heating	37 ℃. (x4 50 mL and x1 15 mL tubes)
	⑦Refrigerator	4±2 ℃ Four dedicated racks. The default package includes: x1 500 mL bottle rack that stores x1 bottle; x1 1.5 mL tube rack that stores 16 tubes; x2 50 mL tube rack that stores 4 tubes.Option racks are available for 15mL tubes (stores 9 tubes per unit).
	⑧Tube storage	Automatic feed : x1 50 mL tube, x1 15 mL tube, and x6 1.5 mL tubes Manual feed : x2 50 mL tubes, x2 15 mL tubes, and x3 1.5 mL tubes
	⑨Pipette tip supply	Dedicated racks for Panasonic pipette tips. (Up to four racks, each rack stores x4 10 mL tips (100 tips in total)) 20 µL, 200 µL, and 1-mL pipette tips are also available (96 pcs/case, each rack stores x2 each type of tips).
	⑩Tube supply	x24 50 mL, x18 15 mL, and x32 1.5 mL tubes.
	Liquid Handling	X-Y-Z (3D) and Y-Z (2D) arms, equipped with interchangeable units (for dishes and well plates, tubes, 20 µL/200 µL/1mL pipette tips, and 10 mL pipettes)
	Operation unit	Dedicated control panel and PC for operation
	Other	UV lamps for disinfection, Cell counting jig, and autoclavable waste tank (5L).
Installation environment	Power supply	3-phase AC 200 V, 60 A, single line
	CO_2 supply	0.1 ± 0.05 MPa, outer diameter 6 ㎜ air tube
	Air conditioning	Temperature : 23 ± 3 ℃, Relative Humidity: 35 – 70 %, Free from dust, oil mist, and corrosive gases
	Installation floor	Floor levelness : ±25 ㎜, ±2 ㎜/m ; Floor load capacity : 640 kg/m²
	Other	Not required (Main unit equipped with 6 sets of casters and adjustable feet), No floor vibration or electrical noise sources

⚠Safety Cautions

●Please read the User's Manual carefully to familiarize yourself with safe and effective usage procedures.
●To ensure safety when using this equipment, all work should be performed according to that as stated in the supplied Operating Instructions. Read your operating instruction manual thoroughly.

Panasonic Group products are built with the environment in mind.

Panasonic GREEN IMPACT

For more information,please visit our website ▶ https://www.panasonic.com/jp/company/ppe/saibobaiyo.html

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Ver.September 1, 2025

●The color of the product is printed matter and may differ slightly from the actual color. ●The rating and design of the product are subject to change without notice for the purpose of improvement.
●This product is designed for use in Japan.Consult your dealer for overseas use. ●Be sure to read the instruction manual carefully before using the product.

Panasonic

2025

Automated Cell Culture and Differentiation System
Catalog

Shaping the Future of Medicine
with the Power of Manufacturing

All-in-One Automated Cell Culture System

Streamline Your Workflow with a Unified Platform

- Fully Integrated Automation: Automates cell culture, high-precision pipetting, and image analysis in a single system.
- Smart Data Management: Centralized control and tracking of experimental data for enhanced reproducibility.
- Consistent Quality & Efficiency: Reduces variability and manual errors, ensuring high-quality results every time

Ideal for a Wide Range of Applications

- Development of Differentiation Protocols and Reagents: Accelerate R&D with reproducible and scalable workflows.
- Preclinical Data Collection & Validation: Generate reliable data for early-stage research and testing.
- Production of Specific Cell Types: Efficiently culture and supply target cells for downstream applications.

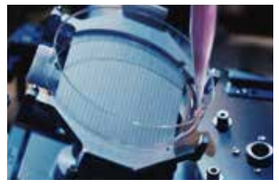
Application

Medium change

Preparing the new culture medium → **Removing the old culture medium** → **Supplying a new culture medium**

Warm up the new medium to the right temperature

Remove the old mediumwith the pipette attached to the arm



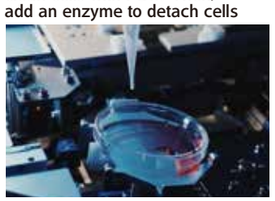
Supply the prepared medium

The dish is properly tilted for efficient addition/removal of the medium while keeping the stress to the cells minimal

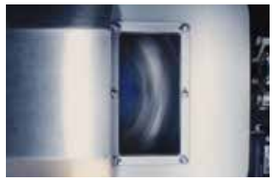
Cell passage

Collecting cells → **Removing supernatant** → **Counting cells** → **Seeding cells**

Remove the old medium and clean cells with PBS. Then, add an enzyme to detach cells



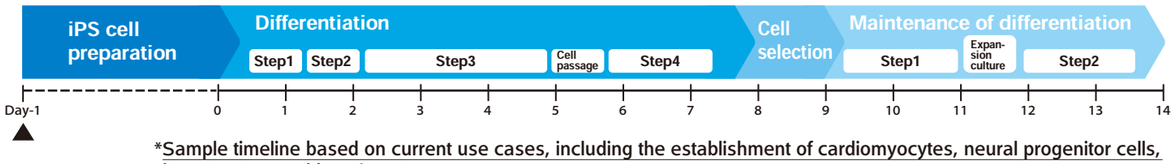
Precipitate cells with a centrifuge and remove supernatant



Count the cells and dilute the solution to the correct concentration

Seed cells in new culture dishes and start the new culture

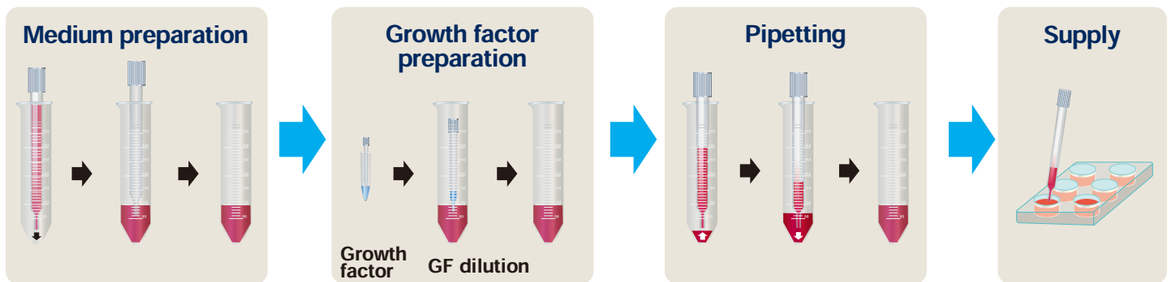
Differentiation



*Sample timeline based on current use cases, including the establishment of cardiomyocytes, neural progenitor cells, hepatocytes, and keratinocytes.
*Actual steps and timelines may vary depending on the cell type and methods

<Automated and efficient sample preparation>

Precision liquid handling with accuracy down to a few microliters not only streamlines the process but also significantly reduces reagent waste - an essential benefit when working with growth factors



Features

Small footprint for better handling :

・The compact design allows for easy loading onto most freight elevators

Data management and traceability :

- Automated tracking system to streamline the data management and analysis across multiple series of experiments
- Ensuring data traceability to help customers comply with GLP and GMP
- The user authentication function provides a secure environment and another layer of traceability

User-friendly software and interface :

- Easy-to-use software with pre-installed methods to meet users' needs
- Visual programming tools to implement protocols without any coding

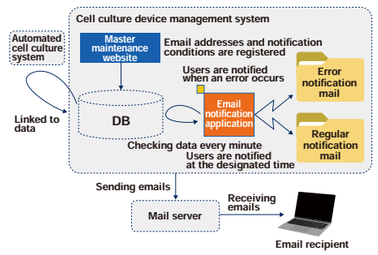
Designed for safety :

- A multi-modal safety system integrates computer vision and other sensor data to proactively prevent incidents – no matter the cause, whether due to human error, technical problem, or environmental factors
- A remote monitoring system alerts users when intervention or attention is required

Three monitoring cameras detect and track all dishes, well plates, tubes, and pipette tips throughout each process

The laser sensor prevents collisions inside the system

Remote monitoring system

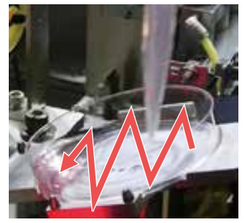


Functionally implementing the "Skilled Researcher" :

- Four types of arms, each exceeding ISO 8655 precision standards, deliver exceptional accuracy
- The enhanced calibration of pipette tips enables the precise detection of liquid surfaces
- A proprietary pipetting workflow, inspired by the sophisticated techniques of experienced researchers, ensures consistent and reproducible results

10 ml **1 ml** **200 µl** **20 µl**

Proprietary pipetting workflow



Imaging :

- Cell counting from phase contrast images
- Easy to follow calculation for the specified density

* Other features will be added soon

Phase-contrast microscope

Cell counting