

CellQualia™

INTELLIGENT CELL PROCESSING SYSTEM

Fully automated cell manufacturing system to realize Quality by Design (QbD) concept in cell manufacturing.

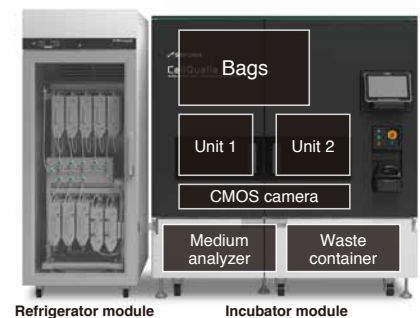


Features

- ◆ Fully closed cell culture system.
- ◆ No unloading of cell culture vessels from incubator.
- ◆ Protect cell culture media and reagents from light with metal cassette.
- ◆ Easy setting
 - Pre-assembled and sterilized line and bag sets are provided.
 - Graphical user interface guides installation of consumables and system operation.
- ◆ Full automation.
 - Seeding, medium exchanging, harvesting, passaging, and ECM coating (if necessary).
 - Process monitoring.
 - Cell and medium sampling.
- ◆ Reproducible result with registered recipe.
- ◆ Equipped with process analytical technologies.
 - Culture environment (temperature and CO₂).
 - Cellular imaging.
 - Medium analysis (glucose, lactate, and pH).
 - Sampled cell and medium for off-line analysis.
- ◆ Connectable to electronic manufacturing managing system.

System configurations

- 1 Fully closed system is formed by aseptic connection of disposable line and bag set and multilayer culture flasks.
- 2 Raw materials can be registered with barcode reader.
- 3 Bagged cell culture media and reagents are stored in metal cassettes in the refrigerator module.
- 4 Seeding bag containing cell suspension is installed in the bags area of incubator module.
- 5 Plate heater for media pre-warming before medium exchanging is in the bags area.
- 6 Twin cell housing units is used for cell passaging. Replace used flask in unit 1 with new and larger one in case of 3 serial expansion.
- 7 Environment data is collected throughout cell culturing. Execute medium analysis and cell and media sampling at pre-set timing.
- 8 Timing of cell passaging is automatically predicted with lactate accumulation as surrogate for cell number.
- 9 Mobile CMOS camera is located at the bottom of cell housing units to take cellular image at desired timing.
- 10 Instrument status can be monitored with tablet PC.



CellQualia™ official site



<https://www.cellqualia.com>

Watch Us On YouTube



▶ Ver. QbD
▶ Ver. System overview & How to manufacture cell

CellQualia™ official Account

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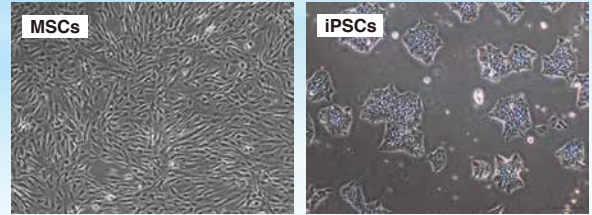
SINFONIA
SINFONIA TECHNOLOGY CO., LTD.



Stable and qualified manufacturing process secures quality of product. Accumulated data can be used for process and product quality improvement.

Proposed applications

- Preparation of master/working cell banks (MSC, iPSC/ESC)
- Cell manufacturing for cell therapy (MSC)
- Large scale preparation for directed differentiation (iPSC/ESC)
- Culture media preparation for exosome isolation (MSC)
- Process development and improvement of all above.



Specifications

Product Name	Intelligent Cell Processing System
Product configuration	Main body (refrigerator and incubator modules), data server, and UPS
Additional devices to be prepared by users	Biowelder® TC (Sartorius, 16389) Biosealer® (Sartorius, 16391-000) Mobile deck lifter (generic product)
Consumables supplied by Sinfonia	Templates (pre-assembled line and bags) Multilayer cell culture flasks with line Cell culture media and reagents
Consumables to be prepared by users	Biowelder® TC Disposable Blades (Sartorius, 16389-012) Tube sets and reagents for BioPAT® Trace (Sartorius)
Power consumption	Typical 2.0kW Max 3.7kW (at 200V) Typical 2.2kW Max 3.8kW (at 240V)
Power supply	AC200V/240V, 1 φ 50Hz/60Hz
Required gas	CO ₂ (0.3-0.5MPaG)
Air supply	Clean dry air (0.3-0.5MPaG)
Installation environment	Temp 18-25°C Humidity 75% or less (no condensation) Cleanness Grade C
Outer dimensions	W2,670 × D931 × H1,995 (no protruding parts)
Weight	Approx. 1,300kg
Standard	CE, UKCA, UL

Culture surface	Max. 18,000cm ² (36-layer)	
Feasible serial cell expansion patterns	1-layer – 5-layer	
	2-layers – 10-layer	
	1-layer – 5-layer – 36-layer	
ECM coating	Feasible	
Process analysis	Culture environment	temperature and CO ₂ concentration monitors
	Cell imaging	CMOS camera
	Culture media analysis	glucose, lactate, and pH sensors
	Samples for off-line analysis	cells at harvesting and culture media at any time
Applicable cell types	Adherent cells	
Available applications	Mesenchymal stem cells (MSCs)	
	Pluripotent stem cells (iPSCs/ESCs)	

This product and applications were jointly developed with the Foundation for Biomedical Research and Innovation (FBRI) at Kobe.

Sinfonia Technology Co., Ltd. is cooperated with Cyto-Facto Inc. (<https://www.cytofacto.com>) to realize QbD-based cell manufacturing for clinical use with ICP System.

■ Price

Open price.
Please contact your supplier for quotation.

■ Other inquiries

Please contact us through CellQualia official site.



Official Site



Inquiry Form



Kobe Center for Medical Innovation (KCMi)

SOLUTION LAB

SINFONIA TECHNOLOGY's Solution Lab is a base for cell production-related customer services, such as user training, demo / paid runs and contract manufacturing, by our resident staff. The facility is a compact CPC at the Grade C level, which is a recommended environment for CellQualia™ Intelligent Cell Processing System installation. We believe that an efficient use of our Solution Lab can accelerated the realization of QbD in your cell manufacturing.

SINFONIA TECHNOLOGY has acquired a patent license from iPS Academia Japan, Inc. for instrument demonstration and user training use of prescribed iPS cells. Please contact us in advance if you want to use the other iPS cells.

CellQualia™

CellQualia is the brand name for Sinfonia Technology's system products for regenerative medicine.



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CODE

E00-313

2404L04PP

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