

SINCE 1889



Yamato Scientific
America

Cell Imaging and Separation Systems

Contents

Celloger Mini Plus Page 3

Cellpuri Page 4

Cell Imaging System

Real-time automated live cell imaging system inside your incubator



Celloger® Mini Plus

Imaging modes

Brightfield, Fluorescence (Green / Red)

Fluorescence

Green : Excitation (470/40x) / Emission (510lp)
Red : Excitation (510/84x) / Emission (570lp)

Stage

Motorized XYZ (camera moving)



Boost your research efficiency by enabling real-time cell monitoring and analysis—directly inside your CO₂ incubator. Conduct advanced research and data analysis without removing cells, preserving experimental integrity while saving valuable time and effort.

Real-time walk-away monitoring

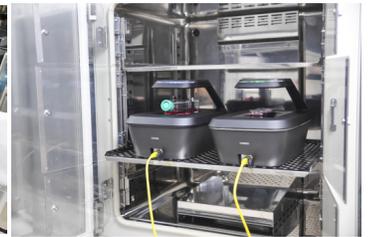
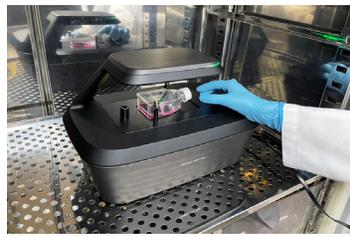
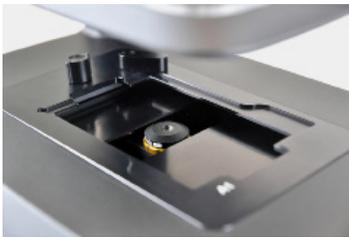
- Remotely monitor live cells inside the incubator without disturbing the environment suitable for cell culture. You can monitor cells in real-time or with the time-lapse function, cell images are captured automatically according to your research protocol and videos are easily made with simple clicks.

Multi-position imaging

- Using the motorized stages that travel 117mm x 77mm, x and y axis respectively, multiple points within the travel range can be captured following the schedule (intervals, cycles, total time) set by the researcher.

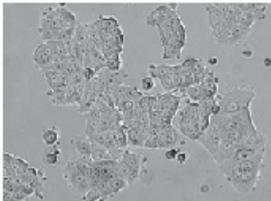
Compatible with various vessel types

- Cells cultured in different vessel types can be imaged. Interchangeable vessel holders accommodate various vessel types including well-plate, culture flask, dish, and slide.

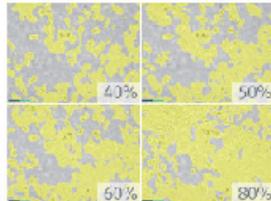


Applications

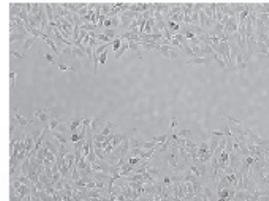
Images taken with Celloger® Mini Plus (4X objectives, bright field & green /red fluorescence)



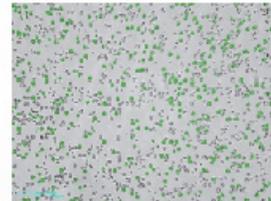
Cell monitoring



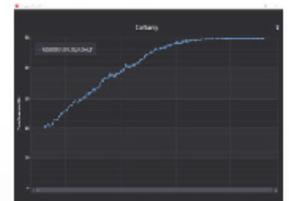
Cell proliferation



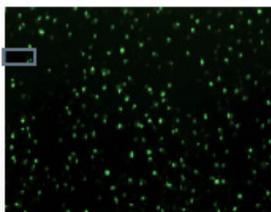
Wound healing assay



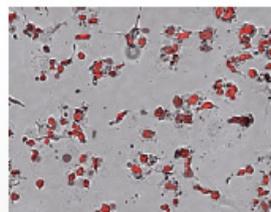
Coculture monitoring



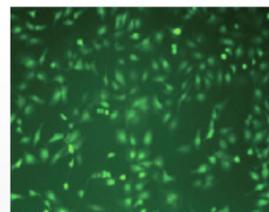
Cell culture & growth



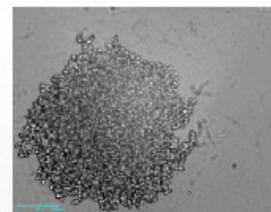
Apoptosis assay



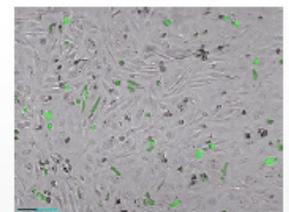
Cytotoxicity assay



Reactive oxygen species (ROS) detection



Spheroid screening assay



Transfection efficiency assessment

Specifications

Model	CELLOGER® MINI PLUS
Operating environment	10~40°C, 20~95% humidity
Objective lens	4x / 10x
Field of view	2X (2.53 x 1.90 mm) / 4X (1.19 x 0.90 mm) / 10X (0.57 x 0.43 mm)
Imaging modes	Brightfield, Fluorescence (Green / Red)
Fluorescence	Green: Excitation (470/40x) / Emission (510lp) Red: Excitation (525/30x) / Emission (570lp)
Light source	LED
Camera	5MP CMOS
Stage	Motorized XYZ
Imaging positions	Multiple
Dimensions	226 x 358 x 215 mm

Celloger® Mini Plus Models

Model No.	Description
CMP-B2	Bright Field, 2X
CMP-B4	Bright Field, 4X
CMP-B10	Bright Field, 10X
CMP-BG4	Bright Field + Green Fluorescence, 4X
CMP-BG10	Bright Field + Green Fluorescence, 10X
CMP-BR4	Bright Field + Red Fluorescence, 4X
CMP-BR10	Bright Field + Red Fluorescence, 10X

Cell Separation System

Disposable cell concentration chip

Cellpuri®



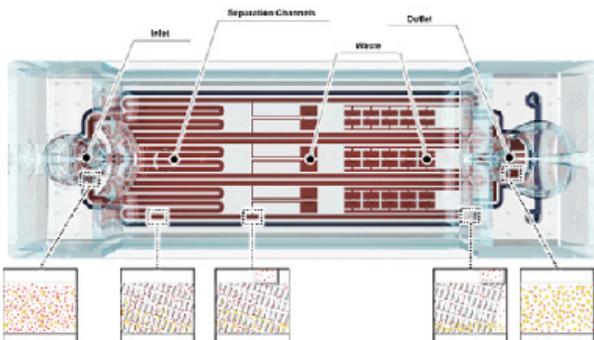
A disposable chip that concentrates cells without the centrifugation process. The chip enriches cells using rheological phenomenon inside the microchannels where cell suspension pass through to separate the cells from the media.

- User-friendly disposable cell concentration chip
- Enriches cells more than 20 times in 2 minutes
- Centrifugation-free workflow minimizes cell damage
- All processes are done inside the clean bench
- 95% recovery when cell washing
- Reduces human error as enrichment is automatically processed using the syringe pump



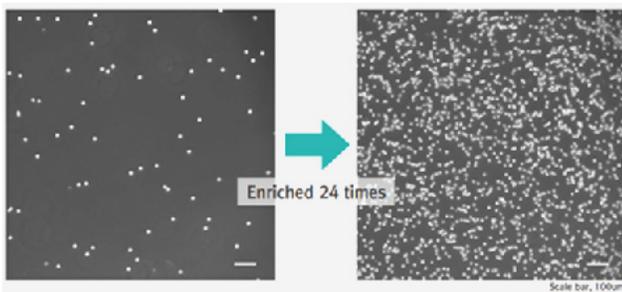
Its compact design allows for easy integration into clean bench environments, reducing contamination risks and enhancing overall cell safety during processing.

Filterless Filter (FLF Technology)



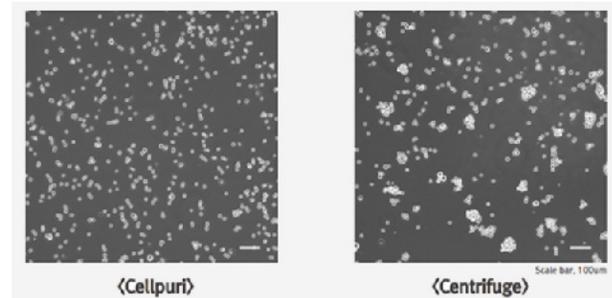
It is a microfluidic chip-based cell separation and concentration technology. Countless micrometer-sized channels inside the chip create a rheological flow that separates, concentrates, and removes particles of a specific size from the solution. Microchannels were strategically designed to isolate cells according to their size where larger cells are directed towards one side whereas smaller cells flow randomly on lateral axis that eventually compile on the other side. FLF technology can be applied to cell enrichment, white blood cell separation, and blood-plasma separation.

Cell Enrichment



Cellpuri® efficiently separated HL-60 cells from medium without spinning-down the cells and more than 20-fold enrichment (121.2x10 cells/mL) was observed in HL-60 cells at an initial concentration of 4.9 x 10 cells/mL.

Reduced Cell Clumping



Adherent cells, including MCF7 cells, tend to form clumps during the cell passage. But as shown in above images, enrichment using Cellpuri® reduces cell clumping while centrifugation pellets the cells and thus increasing the clumping cells.

Specifications

Model	CELLPURI®
Sample size	7~15 µm size cells
Flow rate	1ml / min
Enrichment	20-fold
Yield	97%
Loading volume	20 ml
Dimension	76 x 25 x 23 mm

Cellpuri®

Model No.	Description
CPR-CE05	Cellpuri®, Cell Concentration chip (5 pcs/box)
CPR-SP01	Syringe pump