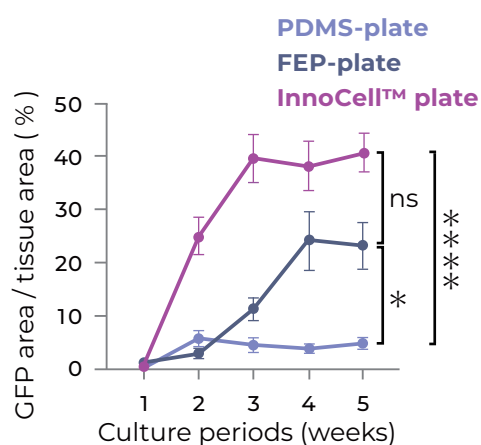


Additional Data

Culture of mouse testis tissue

• Development of the membrane ceiling method for in vitro spermatogenesis. *Scientific Reports*, 15: 625, (2025).



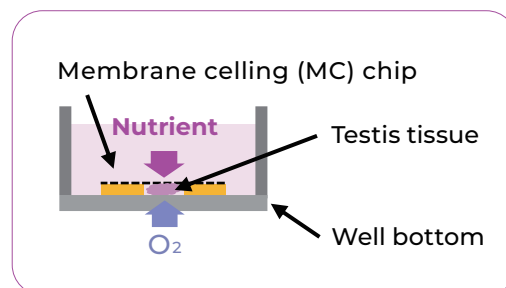
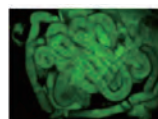
InnoCell™ plate
Image (5 weeks)

Scale bar : 100µm (White)

Bright field



GFP



Conditions

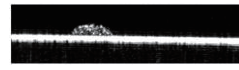
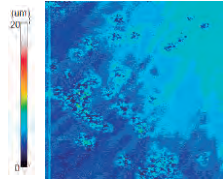
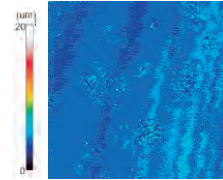
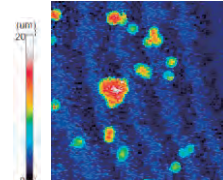
[Tissue] GFP-tagged Acrosomes and RFP-tagged nuclei mice testis tissue
[Culture period] 5 weeks
[Plate type] InnoCell™ plate FP series (flat bottom)
non-treated (N type)

InnoCell™ plate supports testis tissue culture and improves Acr-GFP expression compared with conventional oxygen-permeable plates.

Cell3iMager Estier Analysis

• Data provided by SCREEN Holdings Co., Ltd.



	Manufacturer A (PS-plate)	Manufacturer B (PS-plate)	InnoCell™ plate
Cross-sectional image of interface (saturation)			
Measurement of thickness of single layer culture			

Conditions

[Equipment] Cell3iMager Estier
[Technology] Optical coherence tomography (OCT)
[Cell] MCF7
[Coat] iMatrix 511
[Culture period] 5 hours
[Plate type] InnoCell™ plate FP series (flat bottom)
Non-treated (N type)

InnoCell™ plate enables clear viewing of the cell shapes in flat-surface culture using OCT imaging.

[Abbreviation] · PS : Polystyrene · FEP : Fluorinated Ethylene Propylene copolymer · PDMS : Poly (dimethylsiloxane) · COC : Cyclic Olefin Copolymer

Additional Data 2

FDSS / μ CELL Kinetic Plate Imager Analysis

• Data provided by HAMAMATSU PHOTONICS K.K.

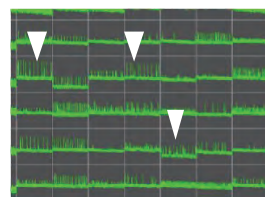


Rat cerebral cortex



Ca²⁺ dye

InnoCell™ plate



Ca²⁺ oscillation

Conditions

[Equipment] FDSS / μ CELL Kinetic Plate Imager
 [Tissue] Rat cerebral cortex
 [Culture period] 15 days
 [Plate type] InnoCell™ plate FP series (flat bottom)
 Non-treated (N type)

InnoCell™ plate enables good Ca²⁺ oscillations in tissue culture of rat cerebral cortex.

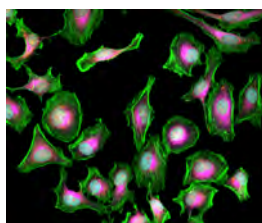
CellVoyager CQ1 Analysis

• Data provided by Yokogawa Electric Corporation

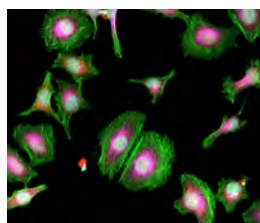
Image by confocal microscope (× 40 objective lens)

Superimposed image

PS-plate

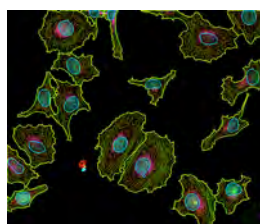
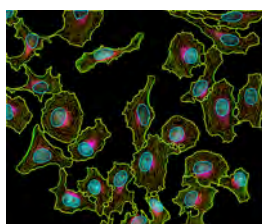


InnoCell™ plate



Nucleus :
 Hoechst 33342 (Cyan)
 Actin :
 Alexa Fluor 488 phalloidin (Green)
 Mitochondria :
 MitoTrackerRed CMXRos (Red)
 Tubulin :
 Alexa Fluor 647 (Magenta)

Analyzed image



Nucleus : Outline Light blue
 Cell body : Outline Yellowish-green
 Actin : Orange

Conditions

[Equipment] CellVoyager CQ1
 [Analysis] CellPathfinder
 [Cell] pkt1
 [Plate type] InnoCell™ plate FP series (flat bottom)
 Collagen-coated (C type)

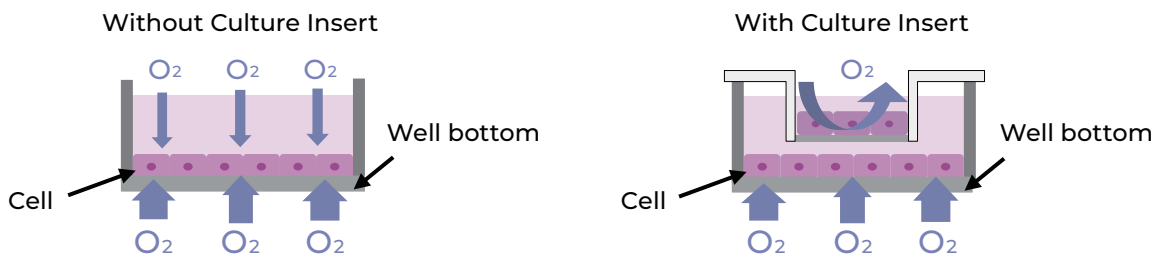
When using InnoCell™ plate in conjunction with the CellVoyager CQ1, high-definition confocal microscope images can be obtained for analysis.

[Abbreviation] · PS : Polystyrene · FEP : Fluorinated Ethylene Propylene copolymer · PDMS : Poly (dimethylsiloxane) · COC : Cyclic Olefin Copolymer

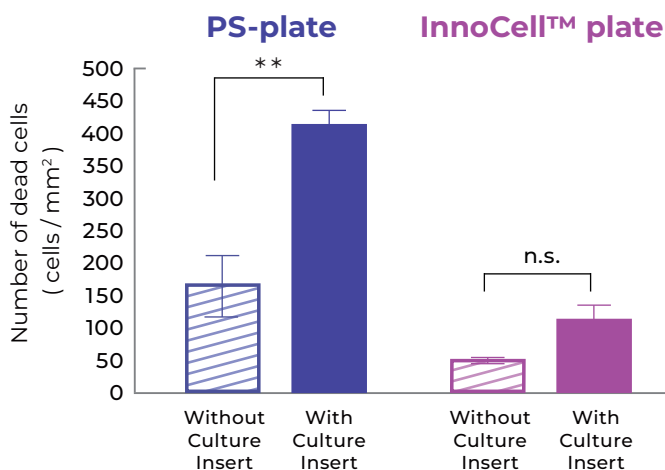
Additional Data 3

InnoCell™ plate Co-Culture System

• Enhanced Functionality of Human Hepatocytes using the Oxygen Permeable Culture Plate for Optimized Oxygen Supply in Co-culture Systems with Culture Inserts. AATEX, 29(2): 64-74, (2024).



Cell viability

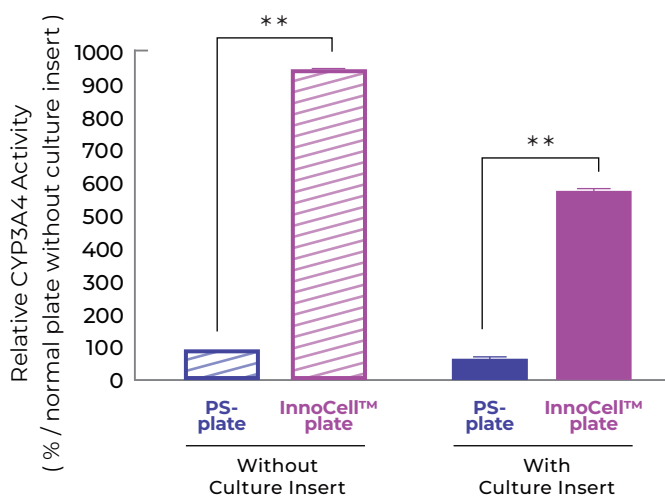


Conditions

[Cell] HepG2 cells
 [Culture period] 3 days
 [Plate type] InnoCell™ plate FP series (flat bottom)
 Collagen-coated (C type)

InnoCell™ plate stably supplies oxygen to cells at the bottom of wells even when using culture insert.

CYP3A4 metabolic activity



Conditions

[Cell] Hepa SH™ cells
 [Culture period] 7 days
 [Plate type] InnoCell™ plate FP series (flat bottom)
 Collagen-coated (C type)

InnoCell™ plate maintains higher drug metabolism enzyme activity even if the culture insert is installed.

Additional Data 4

Spheroid formation and function using InnoCell™ 3D culture plate

• Data provided by Komatsu Laboratory, University of California, San Francisco (UCSF)

Spheroid Formation

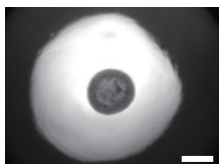
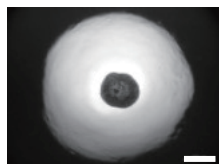
InnoCell™ 3D culture plate

Cell seeding density [cells / well]

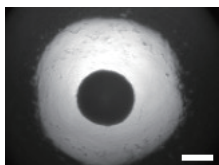
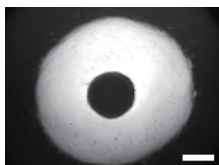
16,000

36,000

Rat
Endothelial
cells



Rat Primary
Mesenchymal
Stem cells



Scale bar : 500μm (White)

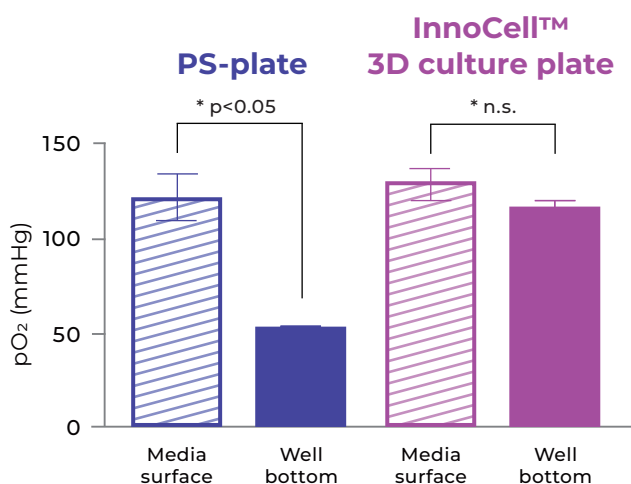
Conditions

[Culture period] 2 days

[Plate type] InnoCell™ plate 3D series
3D culture plate

InnoCell™ plate is applicable to for spheroid formation even with a higher cell seeding density.

Oxygen partial pressure in a medium



Conditions

[Cell] Rat INS-1 cells

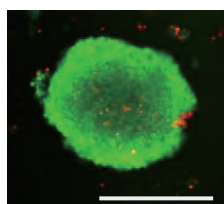
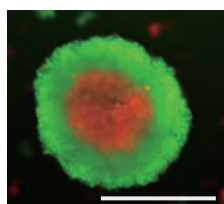
[Culture period] 2 days

[Plate type] InnoCell™ plate 3D series
3D culture plate

InnoCell™ plate mitigates the oxygen gradient within the well, providing uniformly oxygenated conditions for spheroids at the bottom.

Spheroid viability

PS-plate InnoCell™ 3D culture plate



LIVE cells (Green) / DEAD cells (Red)
Scale bar : 300μm (White)

Conditions

[Cell] Rat INS-1 cells

[Culture period] 2 days

[Plate type] InnoCell™ plate 3D series
3D culture plate

InnoCell™ plate improves spheroid viability, with suppression of central necrosis in large spheroids.