

NEW

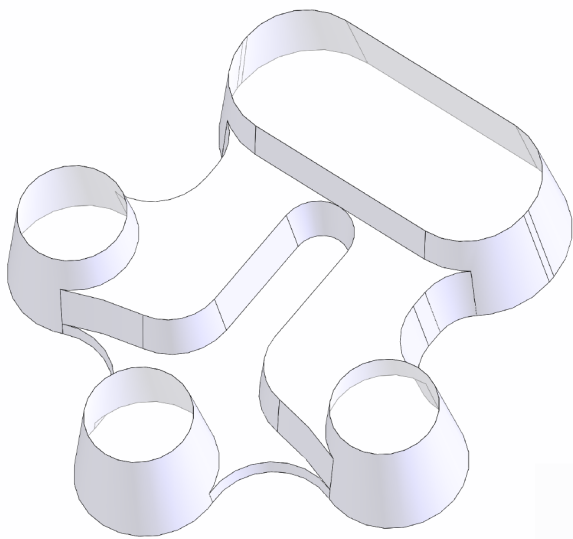
iUVO™ SLIDE - 3D ICC

immunocytochemistry in 3D

High Content Assays in 3D

The new iuvo™ 3D Assay Slide Device is the first in a new product line that incorporates the unique, 3D cellular assay capabilities of the iuvo™ Microconduit Array plates into a lower throughput design that can be used with any inverted microscope instead of requiring a high-end automated HCA instrument. The improved microchannel design in the 3D Assay Slide allows immunostaining *in situ* even in dense matrices like Matrigel™.

Why wait to start doing your cellular assays in a more physiologically relevant microenvironment?



iuvo™ Slide - 3D ICC Individual Chamber Schematic



IMMUNOSTAINING IN 3D ECM

Even staining across entire matrix in both fixed and live cells.

LIVE CELL IMAGING IN 3D ECM

Monitor real-time cell motility and function in a physiologically relevant microenvironment.

ULTRA-LOW VOLUME (3 µL) CELL COMPARTMENT

Reduce consumption of expensive matrices and precious primary cells.

SIMPLE & EASY-TO-USE

Liquid additions by micropipette; no syringes or pumps required.

DIRECT PATH TO AUTOMATION

Channel designs can be arrayed into full plate format to be fully compatible with lab automation.

Application Areas

Cell Health Assays

viability, cell cycle, apoptosis, mitochondrial membrane potential

Cell Motility Assays

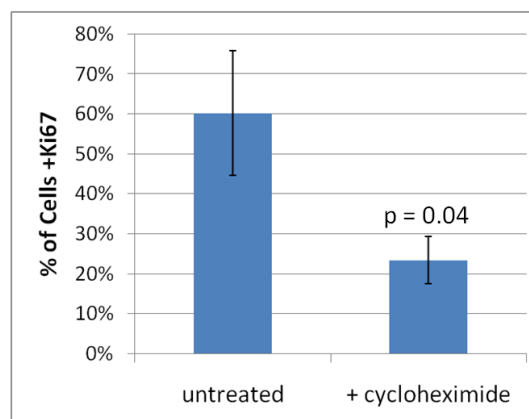
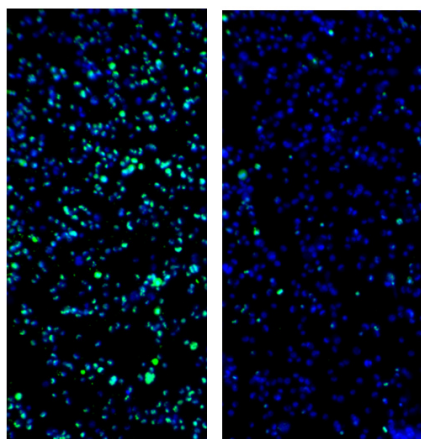
3D tumor cell invasion
3D fibroblast migration

Cell Differentiation Assays

3D-embedded mammary organoids

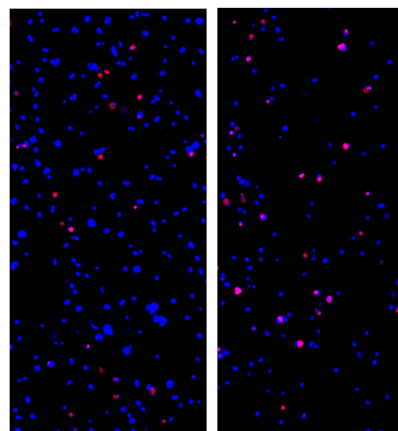
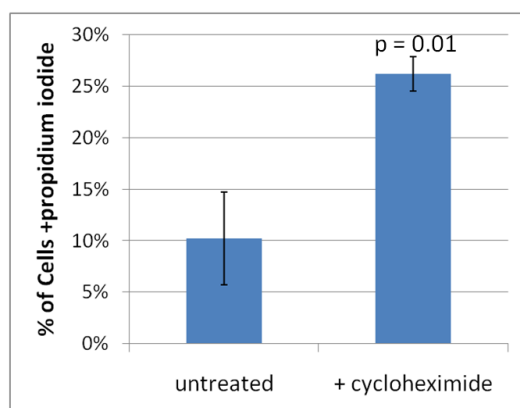


Explore Inhibition of Proliferation with Immunocytochemistry



Immunocytochemistry Staining of PC3-M Cells Embedded in 3D Matrix. PC3-M cells were embedded in 3D Matrigel™ (90%) on the iuvo™ Slide - 3D ICC platform. Once the matrix gelled, growth media (with and without 20 μM Cycloheximide) was added to the side compartments of the channel. Following incubation, the cells in the matrix were fixed by flowing reagents through the side channels and allowing sufficient time for diffusion into the gel. A standard immunocytochemistry protocol (4% formaldehyde fixative, 0.5% TX-100 permeabilization buffer, 10% goat serum blocking buffer, primary antibody for Ki67 from LabVision, and AlexaFluor®594 secondary antibody) was utilized. Single-plane images (left panel) capture full depth of ECM and show loss of proliferation marker, Ki67 in cells treated with Cycloheximide. Graph (right panel) shows quantitative analysis.

Detect Cytotoxic Effects with A Live Cell Assay



Live Cell Assay Staining of MCF10A Cells Embedded in 3D Matrix. MCF10A cells were embedded in Matrigel™ (90%) on the iuvo™ Slide-3D ICC platform. Once the matrix gelled, growth media (with and without 20 μM Cycloheximide) was added to the side compartments of the channel. Following incubation, a solution of Hoechst and propidium iodide was flushed through the side channels. Propidium iodide was taken up by those cells with a compromised membrane integrity, while the Hoechst was used as an all-cell stain. Graph (left panel) illustrates loss of membrane integrity, as indicated by staining with propidium iodide. Single-plane images (right panel) capture full depth of ECM and were analyzed to generate quantitative data.

Ordering Information

Product	Catalog #	Quantity
iuvo™ Slide - 3D ICC Starter Kit	6007	2 Slide Holders, 6 Slides
iuvo™ Slide - 3D ICC Individual Slides	6008	6 Slides