PHYSIOLOGICAL
CELL-BASED ASSAYS
FOR HCS

CYTOO

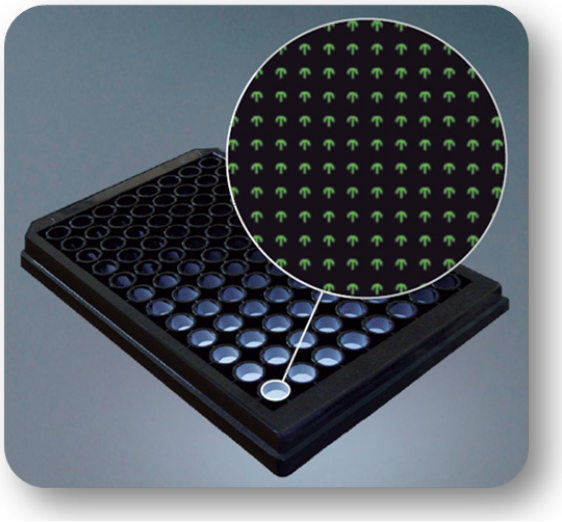
CYTOO plates™

Normalize. Analyze. Discover

CYTOO plates™ Cell Normalization

High Content Analysis. Empowered.

CYTOOplates are high resolution glass-bottom microplates with thousands of adhesive micropatterns arrayed on a cytophobic surface in each well.



Cell normalization. Assay standardization

When seeded on micropatterns, cells attach and stretch out over the non-adhesive surface. The geometric distribution of adhesive contacts between cells and substrate induces the reproducible polarization of the cell machinery. Cell position, cell shape, cell polarity and internal cell organization become normalized.
CYTOO's technology paves the way to more reliable and sensitive quantitative cell analysis.

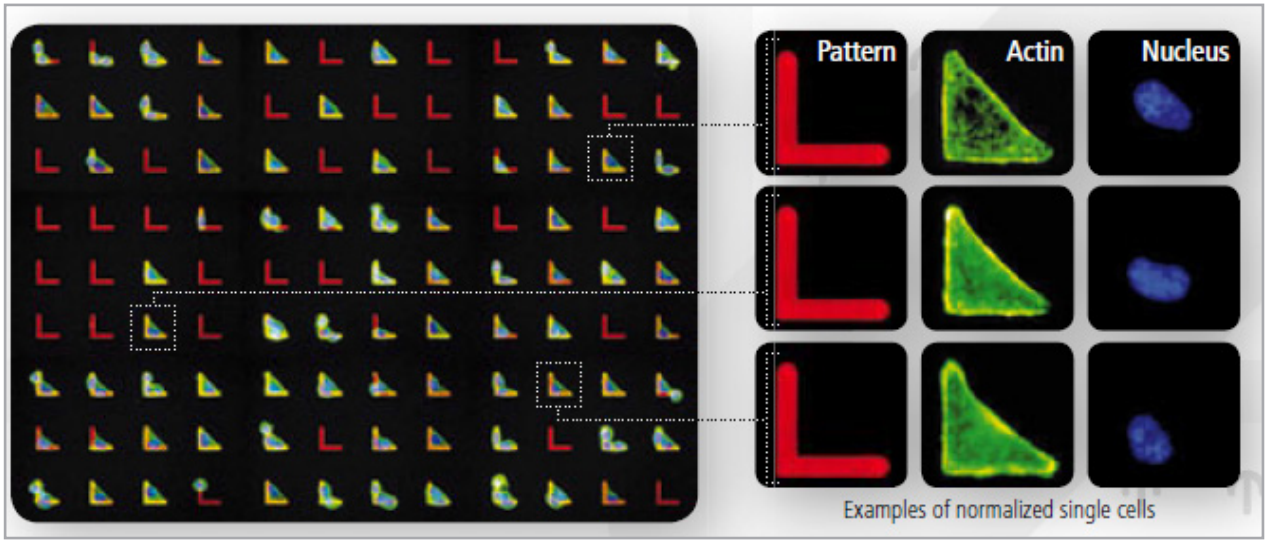
A new dimension to your HCA/HCS assays:

- Powerful assay standardization
- Reproducible & sensitive cell phenotype quantification
- Straightforward image analysis

Cells on micropatterns

Results obtained on micropatterns with the following cell types have already been published: epithelial cells, fibroblasts, adenocarcinomacell lines, hepatic cell lines, primary cells, neurons and neuron progenitors, stem cells...
For an updated list of publications: https://cytoo.com/resource-center/publications

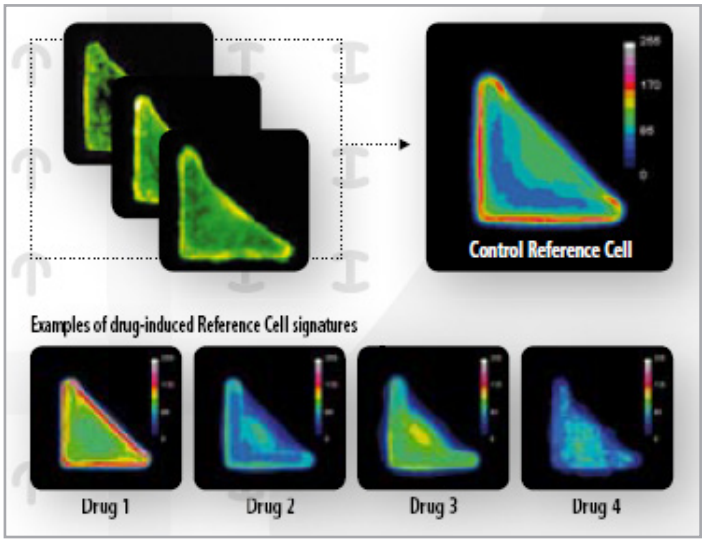
Generate High Content Reference Cells™



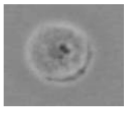
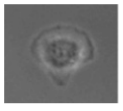
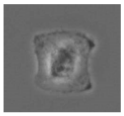
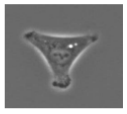
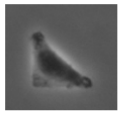
Example of image mosaic acquired at 20x on standard HCS instruments or automated microscopes. Using standard image processing tools and error-free segmentation, single cells are automatically identified within the images and selected for further analysis.

From as few as 50 normalized cells, it is now possible to convert a stack of images into a single representative image of the cell population phenotype: the Reference Cell.

Reference Cell is a unique tool to easily design robust phenotypical screening. HCS compatible software available on demand.



A whole range of micropatterns for diverse applications

	Disc	Crossbow	H	Y	L
Micropatterns					
Cells					
Description	No polarization	Strong polarization	Symmetric organization	Triaxial symmetry organization	Single free edge organization
Noteworthy Applications	Cell arraying Ciliogenesis	Cell polarity Organelle positioning Receptor internalization	Cell division Cell-cell junction	Multipolar division	Cytoskeleton rearrangement & Spindle orientation

Getting started

The CYTOOplate Starter's allows you to identify which pattern works best for your specific assay from a choice of 5 standard patterns in 2 sizes (small/medium).
Columns 1 and 12 are homogeneously covered with adhesive protein where your cells will behave as if they were on a conventional cell culture surface.

Custom

Imagine all the patterns… Your needs are unique. We can design customized patterns for your specific project.
Please contact us at contact@cytoo.com

Product specifications

Description	96 well microplate with adhesive micropatterns; F-glass bottom (flat), alphanumeric well coding; with lid		
Plate bottom	micropatterned high quality low fluorescence glass		
Plate dimensions	Standard SBS format (length: 127.76 mm; width: 85.48 mm)		
Bottom thickness	175 µm (1.5), curvature <100 µm		
Material	Plate: PS (Black Polystyrene); Lid: PS (Clear Polystyrene)		
Working well volume	25 –340 µL		
Micropattern geometries	Disc, Crossbow, H, Y, L and custom-made		
Standard pattern sizes	Small	Medium	Large
Cell area	700 µm²	1100 µm²	1600 µm²
Number of micropatterns per well	5000+	3000+	2000+
Pitch between micropatterns	80 µm	100 µm	120 µm
Adhesion protein	Activated*		
Packaging	Individual; Aluminum bag; vacuum sealed under protective atmosphere		
Working temperature range	+4°C to +37°C. Do not freeze.		
Shelf life	6 months after date of production (at +4°C)		
Other Information	For single use only		

* ready-to-coat product for adsorption of the protein of your choice (Collagen, Laminin, Poly-Lysine, Matrigel®, specific antibodies etc.). Protein may be fluorescently labeled. Contact us for recommended coating protocols and specific needs.

Ordering information

Cat. No.	Product Name	Micropattern	Size	Min. of order
20-900-00	CYTOOplates 96 Starter-A	Multi	Small (700 µm²)/Medium (1100 µm²)	5
20-001-00	CYTOOplates 96 DC-S-A	Disc	Small (700 µm²)	5
20-002-00	CYTOOplates 96 DC-M-A	Disc	Medium (1100 µm²)	5
20-003-00	CYTOOplates 96 DC-L-A	Disc	Large (1600 µm²)	5
20-004-00	CYTOOplates 96 CW-S-A	Crossbow	Small (700 µm²)	5
20-005-00	CYTOOplates 96 CW-M-A	Crossbow	Medium (1100 µm²)	5
20-006-00	CYTOOplates 96 CW-L-A	Crossbow	Large (1600 µm²)	5
20-007-00	CYTOOplates 96 H-S-A	H	Small (700 µm²)	5
20-008-00	CYTOOplates 96 H-M-A	H	Medium (1100 µm²)	5
20-009-00	CYTOOplates 96 H-L-A	H	Large (1600 µm²)	5
20-010-00	CYTOOplates 96 Y-S-A	Y	Small (700 µm²)	5
20-011-00	CYTOOplates 96 Y-M-A	Y	Medium (1100 µm²)	5
20-012-00	CYTOOplates 96 Y-L-A	Y	Large (1600 µm²)	5
20-013-00	CYTOOplates 96 L-S-A	L	Small (700 µm²)	5
20-014-00	CYTOOplates 96 L-M-A	L	Medium (1100 µm²)	5
20-015-00	CYTOOplates 96 L-L-A	L	Large (1600 µm²)	5
20-950-00	CYTOOplates 96 Custom-A	Custom	Custom	10

For inquiries please contact us at www.cytoo.com/contact-us

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