

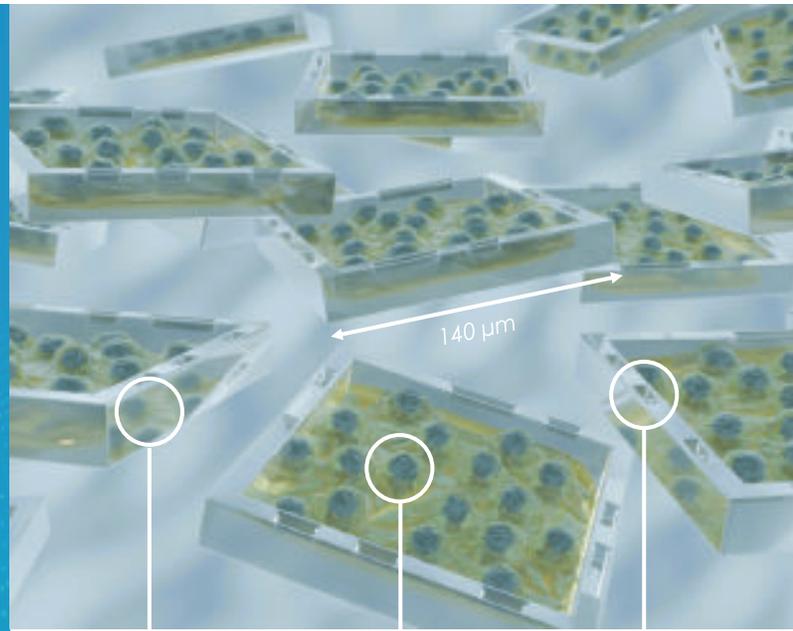
Unlock More Data From Your Tools



Barcode & Multiplex Adherent Cells for Data-Rich High Content Screening

SemaCyte® microcarriers are ultra-miniaturised, barcoded “micro-wells” that turn adherent cells into automation-ready reagents. They allow adherened cells to be moved, cryopreserved, pooled, and screened with the same ease as suspension cells.

Fully compatible with automated 384-well workflows, SemaCytes enable cell multiplexing: multiple engineered or primary cell models can be combined in a single well for richer high-content data at higher throughput.



Cell repellent walls

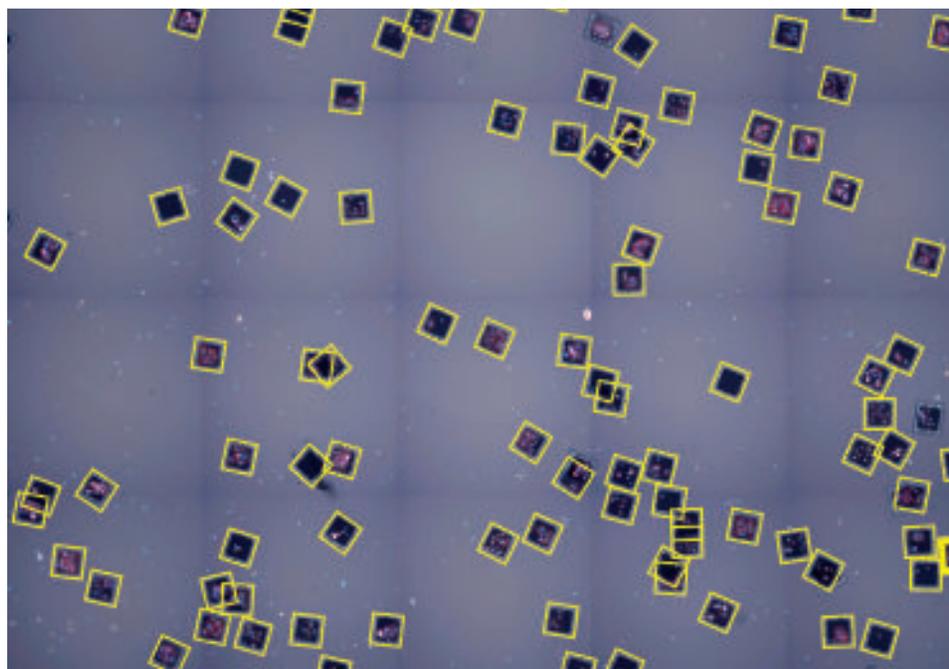
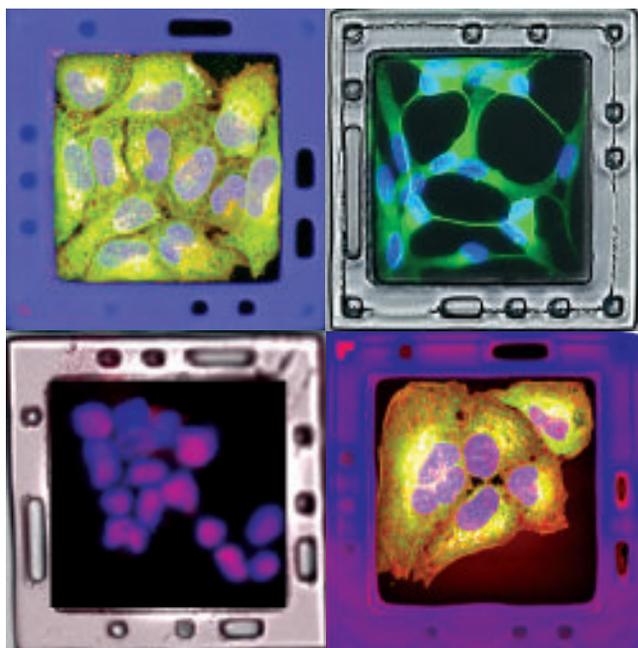
Flat cell growth area

Optical barcode

Throughput: Multiplex 10 cells models to screen 10x faster

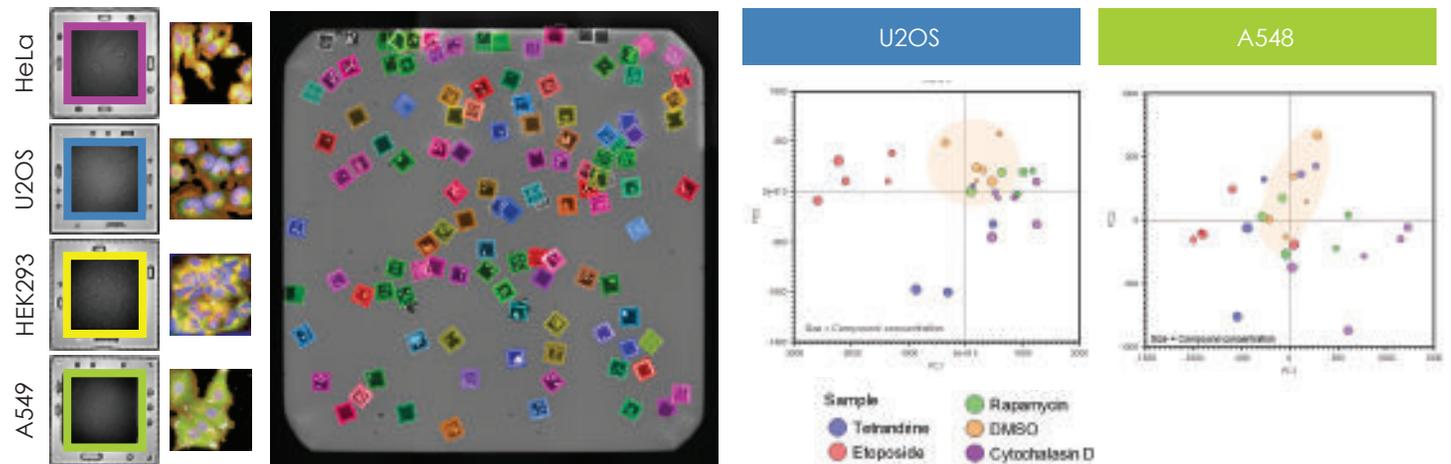
Efficiency: Reduce plates, reagents, and imaging time

Fidelity: Use frozen, barcoded cells to reduce variability



Phenotypic Clustering with Cell Painting

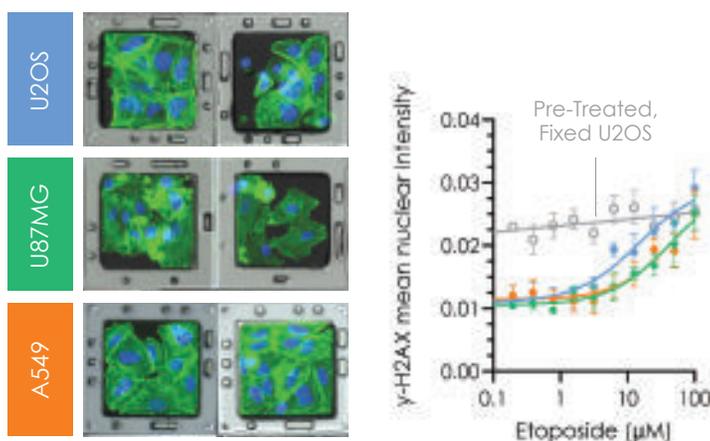
SemaCyte® microcarriers unlock multiplexed cell painting by barcoding adherent cells so multiple models can be pooled and phenotyped in a single well. This enables direct, side-by-side comparison of cellular responses, eliminating bias introduced by running each cell line separately. Barcode decoding through Semalyse, Harmony, or Signal Image Artist delivers clean, cell-type-resolved features for high-content analysis. In 4-plex assays, 100–200 cells per line produce sharp PCA separation and reveal divergent, model-specific phenotypic responses, driving more accurate hit discovery and mechanistic insight.



Barcode, freeze, pool, assay, profile
Transform screening with cell multiplexing

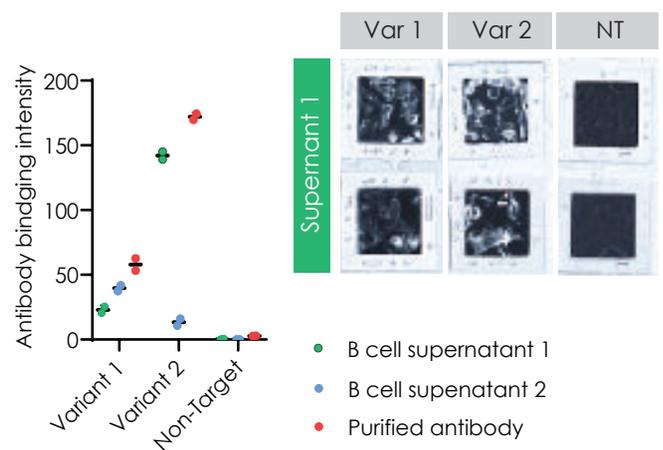
DNA Damage Profiling

SemaCytes deliver rapid, cell-specific γ H2AX DDR profiling from ~80 cells, with frozen assay-ready cells and in-well controls boosting throughput and robustness.



Antibody Selectivity Screening

SemaCytes enable fast, high-fidelity imaging assays for antibody discovery while minimising variability and cytometry dependence.



Want to learn more?
 Use the QR code
 or contact us via info@semarion.com.