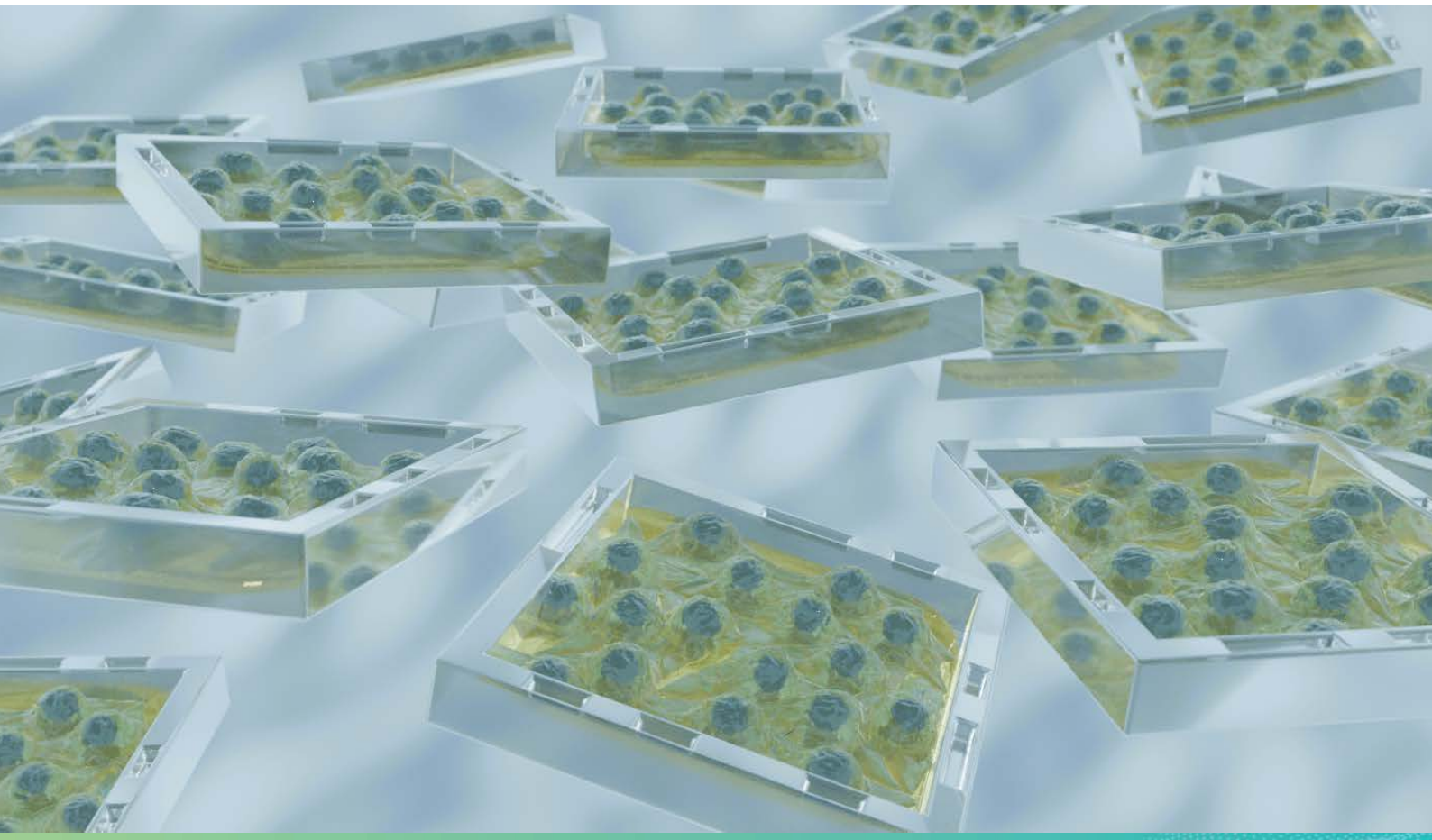
semarion

Revolutionising Adherent Cell Assays



SemaCyte® Microcarriers

More Powerful Assaying Workflows

The SemaCyte® microcarrier platform leverages advanced material science to barcode, move, and cryopreserve adherent cells within your assay workflows. SemaCytes seamlessly integrate with microplate-based assays, boosting throughput, flexibility, and efficiency. Unlock better data faster from a diverse range of adherent cell assays using your existing tools and equipment.

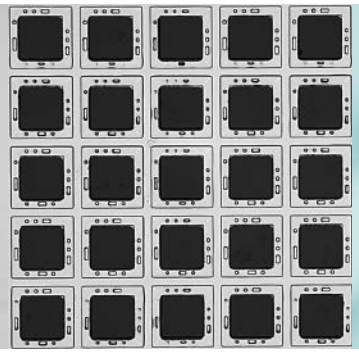
The Workflow Benefits of SemaCyte® Microcarriers

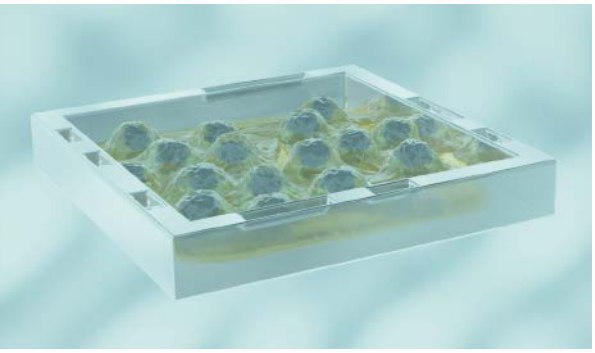
SemaCytes are well-shaped, barcoded microcarriers which capture adherent cells and turn them into standardised reagents. These materials enable adherent cells to be moved with liquid handling tools. Seamlessly integrate with standard microplate-based workflows, they enhance discovery research and reduce costs.

Multiplex Adherent Cells Within Microwells	Freeze Adhered Cells Inside Cryovials	Ultra-Miniaturise Assays Within Microwells
Increased Throughput	**Enhanced Flexibility**	**Resource Efficiency**
10x less time and 6x less cost	Decouple culture from assays	10x fewer cells per assay
Reduce plasticware	Reduce biological variability	More data per cell sample

SemaCyte® Seeding Dishes and Workflow Integration

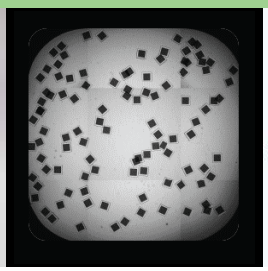
SemaCyte® microcarriers are provided as immobilized arrays on standard cell culture dishes. A 20 cm^2 dish contains 50,000 microcarriers. Each one has a 100 x 100 μm^2 flat cell growth area, able to capture up to 30 cells. The cell repellent walls contain optical barcodes, one code per culture dish. Agitation releases microcarriers into suspension. Advanced magnetism enables purification and ensures correct in-well orientation afer dispensing.

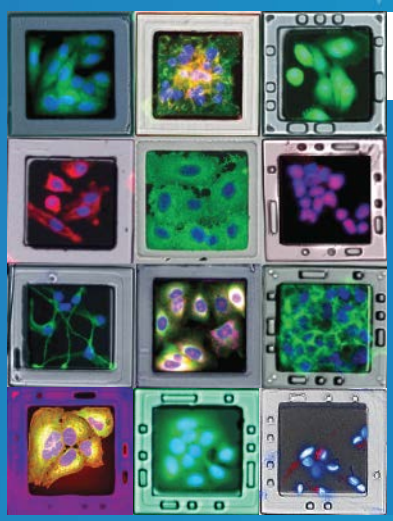




Preparation: Seed cells and grown for a desired confluency and morpghology. Once released from the dish, microcarriers can be cryopreserved.

Assaying: Fresh or frozen cells on barcoded SemaCyte® microcarriers are pooled and dispensed into microplates for plate reader or microscopy based assays. Software deconvolutes the barcodes.





Key SemaCyte® Applications

Multiplex cell models in high content imaging settings to accelerate compound profiling or arrayed CRISPR screening.

Freeze batches of transiently transfected (e.g. NanoBRET) or differentiated cells to assay within 1 hour after thaw.

Ultra-miniaturize assays with precious samoles to screen larger libraries againts patient or iPSC samples.

Learn More About How We can Enhance Your Assay Workflows

www.semarion.com