# **3D Cell Culture**

Three-dimensional (3D) cell culture has grown in interest for tissue engineering and drug discovery applications by providing a more physiologically relevant cellular structure. 3D culture allows cells to interact in all directions with their surrounding cellular and extracellular neighbors. REPROCELL offers a variety of 3D cell culture technologies to support a range of experimental designs, from skin models to cancer invasion to in vivo implantation to embryoid body formation.

### Alvetex – by REPROCELL

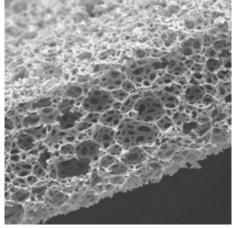
REPROCELL's Alvetex brings a new dimension to your research capabilities, delivering more *in vivo*-like results over two-dimensional monolayer cultures.

Comprised of highly porous cross-linked polystyrene, Alvetex has been adapted to fit a variety of conventional cellculture plasticware formats. We have extensive protocols and application notes covering a wide variety of cell types.

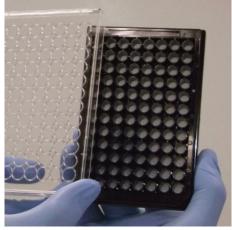
Alvetex provides:

- Genuine 3D cell culture
- Ideal geometry for 3D culture
- Easy transfer from 2D culture
- Stability for long-term studies
- Requires no specialized equipment

Alvetex is available in two pore sizes, 12, 24 and 96 well plate formats, and 6, 12 and 24 well insert formats.



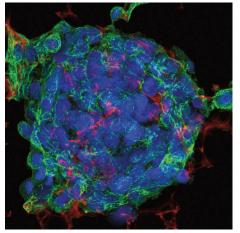
Alvetex Scaffold microscopic structure (SEM)



Alvetex Scaffold in 96 well plate format







HepG2 cells grown on Alvetex (Scale bar: 20 nm)



Alvetex Scaffold in 12 well insert format

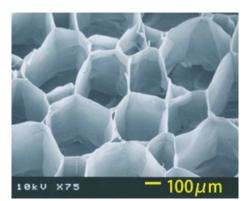
#### https://www.reprocell.com/product-catalog/alvetex-3d-cell-culture-systems



### **Atelocollagen** – by Koken



Collagen is an extracellular matrix found in the dermis, ligaments, bones, etc., and accounts for approximately 30% of the total protein in the human body. Atelocollagen, from Koken, Ltd., Is comprised of peptides formed by peptidase treatment of native collagen. Atelocollagen forms a wide variety of physical forms, and it is bioabsorbable, making it ideal for combined in vitro – in vivo studies. Atelocollagen has been widely used for studies involving nerves, bone and connective tissue.



Atelocollagen Honeycomb Sponge



Atelocollagen Membrane

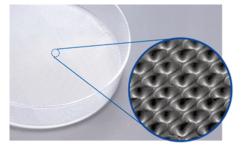
#### https://www.reprocell.com/product-catalog/koken-atelocollagen

#### **EZSPHERE** – by Asahi Glass Corporation

EZSPHERE<sup>™</sup> microfabricated vessels, from Asahi Technical Glass Co., Ltd, are created by lasers to have multiple, regularly-spaced, precisely controlled microwells of 200-1400 µm diameter and 100-400 µm depth etched into the bottom of a traditionally-sized culture dish. The plates and microwells are coated with a proprietary polymer coating to minimize protein binding.

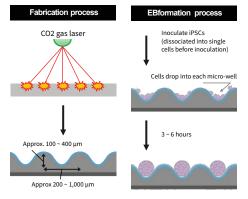
These plates are ideal for forming uniformly-sized microaggregates, such as Embryoid Bodies (EBs).

EZSPHERE dishes are formatted for 6-, 24-, and 96-well microplate, as well as a variety of culture dishes.



**EZSPHERE Microwells** 

## AGC



https://www.reprocell.com/product-catalog/ezsphere-by-agc



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