3D PETG Cell Culture Technology

Copner Biotech Ltd



1. Background and Approach

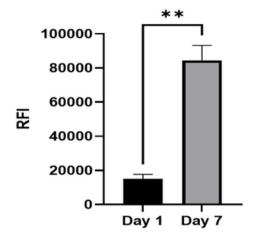
Mammalian cells grown on 3D lattice structures typically have a heterogenous distribution, with clusters common. By introducing discrete oxygen and nutrient gradients across the interface of our 3D PETG scaffold, we encourage cell proliferation from the centre to the periphery. The result is a more balanced system of cells on the scaffold, with confluency patterns like that of in vivo tissue.





2. Cell Proliferation

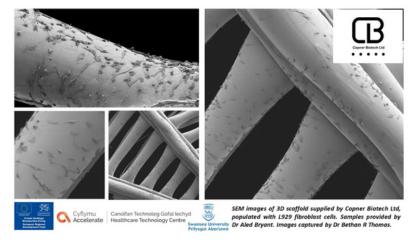
Copner Biotech's PETG material mediates cell division events, whilst minimising cell loss, resulting in significant expansion of cultures over a short space of time. This is particularly useful for those looking to study cells in the exponential growth phase or investigating cell-division events in real-time.



Relative fluorescence intensity of alamarBlue assay at time points; day 1 and day 7.

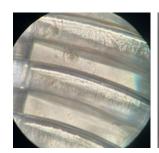
3. Cell Attachment

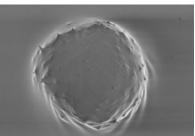
3D PETG scaffolds efficiently mediates mammalian cell attachment, whilst using low cell seeding concentrations. Cells used to date include, but are not limited to; L929 Fibroblasts, Keratinocytes, HeLa cells, MCF-7 cells, A549 cells and iPSCs.



4. Spheroid Formation

The 3D PETG scaffold system contains interconnected pores throughout the entire structure and is designed to culture and harvest spheroid cultures with ease of use. By utilising the centre hole of the scaffold, users can aspirate and harvest spheroid cultures by pipetting up and down with minimal force.





5. Where to Order







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