

# **3D Biotek - 3D Insert™-PCL**

## ***Features and Benefits of 3D Insert™-PCL***



Polycaprolactone (PCL) is a biodegradable polymer used in many FDA approved implants, drug delivery devices, sutures, and has also been widely used in fabrication of porous 3D scaffolds for tissue engineering research



### **Well Known Scaffold Biomaterial for Tissue Engineering Research**

PCL has been widely used in following tissue engineering applications:

Bone/cartilage

Cardiovascular

Nerve

Skin

Tendon/ligament

Liver

### **Pre-sterilized and Ready to Use**

3D Insert™-PS scaffolds are prepackaged into wells of tissue culture plates and terminally sterilized using  $\gamma$ -radiation. They are ready to use!

### **100% Open Porosity**

The pores of the products are 100% open, making it easy for cells to be seeded throughout the porous scaffolds and the nutrient and cell metabolic waste to be exchanged.

### **Well Defined Pore Size and Porous Structure**

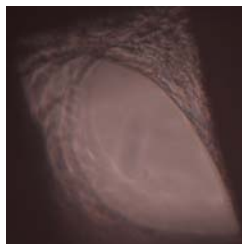
3D Biotek's precision microfabrication technology produces a well-defined pore size and ensures the reproducibility of the porous structure from batch to batch.

### **Organic Solvent Free**

Cytotoxic organic solvents, such as chloroform and methylene chloride, are often used in fabricating PCL scaffolds. 3D Biotek's precision micro-fabrication technology is a solvent-free manufacturing process. Therefore, the 3D Insert™-PCL is free of organic solvent.

### **Fit Into Various Bioreactors**

The size and configurations of 3D Insert™-PCL can be customized to fit into the bioreactors of your choice.



Human bone marrow derived mesenchymal stem cells proliferate and differentiate within the porous structure of the **3D Insert™-PCL** on day 7 post osteogenic induction (10x)

Depending on your research needs, **3D Insert™-PCL** can be made in many combinations of fiber diameters and spacings. Our technical support team will work with you and customize the scaffolds to meet the specific needs of your research project. For more information, please visit our website at [www.3DBiotekStore.com](http://www.3DBiotekStore.com)