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For a list of currently available products from 3D Biotek or BioCellChallenge SAS, please visit our online stores at

www.3DBiotekstore.com

and

www.BioCellChallenge.com

Should you need assistance in selecting the best product for your needs, please do not hesitate to contact us. We welcome all inquiries.



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Headquartered in New Jersey, USA, 3D Biotek, LLC is a leader in 3-dimensional cell culture technology and product development.

Using its 3-dimensional (3D) precision micro-fabrication and advanced bio-manufacturing technologies, 3D Biotek is engaged in the research and development of revolutionary 3D porous devices for stem cell culture, stem cell delivery, and tissue engineering applications.

3D Biotek's novel 3D Insert™ is a 3D porous scaffold for use in stem cell culture including, but not limited to, *in vitro* expansion, differentiation, and tissue engineering applications.

In addition to its designed use with stem cell culture, 3D Biotek's 3D Insert™ porous scaffolds also have wide applications in conducting 3D cell culture studies across fields in cell biology, biopharmaceutical production, drug toxicity screening and cytotoxicity studies of biomaterials and medical devices. Research has shown that 3D cell culture improves cell culture efficiency, more closely mimics *in vivo* cellular responses, and provides more realistic physiological results from *in vitro* cell/tissue culture studies.

The application of 3DBiotek's 3D cell culture devices in these fields will enable a revolutionary transition of cell culture techniques from current 2-dimensional methods to 3D, and as a result, will decrease the overall therapeutic and pharmaceutical product development cost and shorten the time to market.

See the Difference 3D Can Make!

Headquartered in the South of France, Bio-CellChallenge SAS specializes in drug delivery systems.

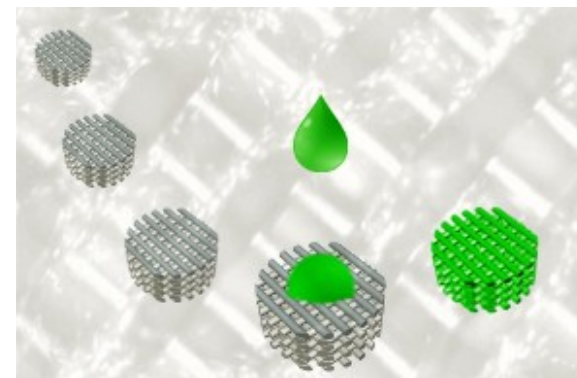
BioCellChallenge SAS specializes in drug delivery systems. The company's aim is to provide exceptional tools and strong support to the scientific community in order to allow scientists to concentrate on their research projects.

BioCellChallenge SAS is also involved in a number of therapeutic projects with several European partners.



Biological Research in 3-Dimension

3D CELL TRANSFECTION KIT

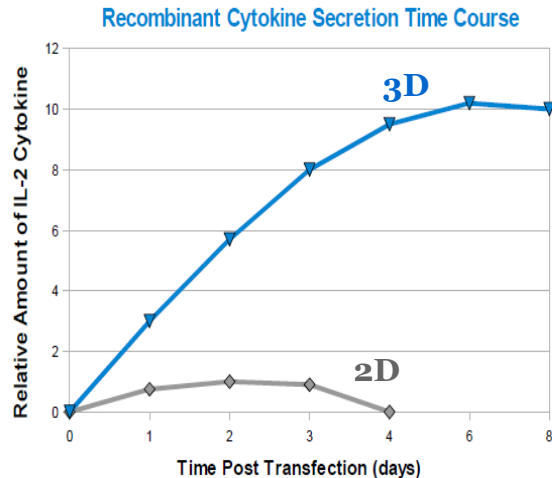


ADD A NEW DIMENSION TO YOUR TRANSFECTION

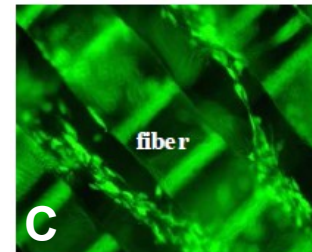
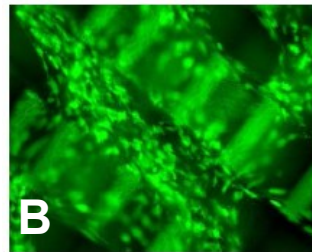
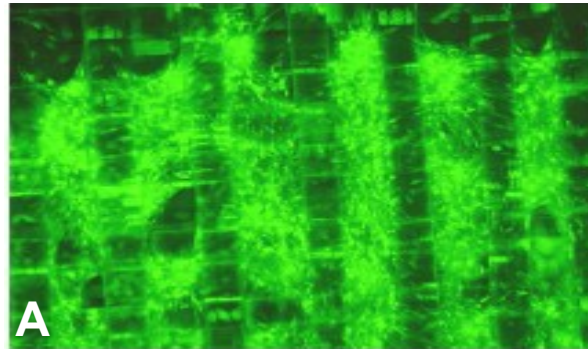


Your Partner in Drug Delivery

The Latest Breakthrough in 3D Technology!



Prolonged increase of IL-2 cytokine secretion in 3D. HEK293T were seeded and transfected in 2D (10×10^5 cells, $0.25 \mu\text{g}$ IL-2 cytokine plasmid, $0.5 \mu\text{l}$ commercial transfection reagent) and 3D (200×10^3 cells, $0.5 \mu\text{g}$ IL-2 cytokine plasmid, $3 \mu\text{l}$ 3D Transfection Reagent). IL-2 secretion was measured by ELISA assay at each time-point.



3D Transfection. Using the 3D Cell Transfection Kit, 2×10^5 NIH-3T3 fibroblastic (A-C) and SH5Y neuronal (D) cells were simultaneously seeded and transfected with EGFP. 3D EGFP expression was monitored by fluorescence microscopy 24 h (NIH-3T3 cells, A-C) and 48 h (SH5Y cells, D) post-transfection. A, D: 10X, B-C: 20X.

The 3D Cell Transfection Kit is the first and unique *in vitro* transfection technology which allows researchers to achieve high delivery efficiencies of plasmid DNA into 3D cultured cells. This innovative product includes a sterile plate containing 3D Cell Culture Scaffolds (3D Biotek, LLC) and a 3D Transfection Reagent (BioCellChallenge SAS). With this kit, researchers can now perform extended transgene expression time-courses in a physiological-like cell growth environment.

3D Cell Culture Scaffolds are made from polystyrene, the same material as traditional tissue culture plates. The combination of polystyrene's transparency and the porous structural design of 3D Cell Culture Scaffolds allows researchers to monitor cell growth and transfection efficiency under an inverted light microscope, or with fluorescence microscopy, respectively, without sophisticated equipment.

3D Cell Culture Scaffolds within the 3D Cell Transfection Kit have increased surface areas compared with 2D cell culture plates. As a result, more cells can be transfected on 3D Cell Culture Scaffolds while using the same size cell culture plates.

3D Cell Culture Scaffolds will not absorb cytokines, growth factors, or any other molecules. Therefore, molecules secreted by the transfected cells can easily be separated or recovered from culture medium without extensive separation steps.

3D Cell Transfection Kit is available in several sizes:

Reference	Scaffold Number	Scaffold Size	3D Transfection Reagent (μL)
3D-DNA96	24	96-well	100
3D-DNA24	12	24-well	200

Storage

The plate containing the 3D Cell Culture Scaffolds can be stored at room temperature. 3D Transfection Reagent is stable for at least 1 year at 4°C .

The Many Advantages of the 3D Cell Transfection Kit over 2D Transfection

- *In vivo*-like cell culture environment
- Higher transfection efficiency
- Increased protein production
- Longer transgene expression
- Easy separation of proteins secreted by 3D transfected cells
- Suitable for primary & stem cell culture and/or transfection
- One step « Transfect & Seed » protocol
- Compatible with inverted light microscope
- *Easy to handle scaffolds*
- Non-toxic