

## Amerigo Scientific Introduces Electrospun Polycaprolactone Scaffolds for 3D Cell Culture

Amerigo Scientific has unveiled its 3D electrospun polycaprolactone (PCL) scaffolds tailored for 3D cell culture applications.

NEW YORK, NY, UNITED STATES, May 20, 2025 /EINPresswire.com/ -- Amerigo Scientific has unveiled its 3D electrospun polycaprolactone (PCL) scaffolds tailored for <u>3D cell culture</u> applications. Designed to address the limitations of traditional 2D cell culture systems, these scaffolds offer researchers a biomimetic microenvironment that enhances cellular behavior studies, drug discovery, and tissue engineering efforts.

Electrospun PCL scaffolds are widely used in 3D cell culture due to their biocompatibility, tunable mechanical properties, and ability to mimic the extracellular matrix (ECM). In drug screening, polycaprolactone scaffolds can facilitate high-throughput testing of compounds in a 3D environment, improving predictive accuracy for in vivo outcomes. For tissue engineering, PCL scaffolds can serve as a foundational material for regenerating skin, bone, cartilage, and vascular tissues. In cancer research, the scaffolds can provide a 3D tumor microenvironment (TME) for studying cancer cell migration, drug resistance, and metastasis.

Amerigo Scientific provides polycaprolactone fiber products manufactured through advanced electrospinning processes. These include nanofiber and microfiber bi-layer mesh products, as well as conventional nanofibers and microfibers. Compared to traditional products, Amerigo Scientific's electrospun fiber mesh products exhibit higher rigidity while maintaining ease of use. Also, Amerigo Scientific offers electrospun fiber products with a nanofiber-frame combination structure, which are available in various electrospun fiber arrangements, diameters, thicknesses, and frame patterns.

Amerigo Scientific's <u>3D bioscaffolds</u> are optimized for diverse biomedical applications. Available in standard sizes or customizable configurations, these scaffolds cater to both academic and industrial needs. Researchers can leverage Amerigo Scientific's technical support team for tailored experimental design, ensuring optimal outcomes across applications.

Amerigo Scientific's commitment to innovation is underscored by its close collaborations with academic and industrial partners, continuously providing a steady and flexible scaffold supply. The introduction of electrospun PCL scaffolds further solidifies its role in advancing biomedical research, offering a reliable solution for labs aiming to bridge the gap between in vitro and in

vivo studies.

## About Amerigo Scientific

Amerigo Scientific, as a recognized distributor in the United States, collaborates closely with leading manufacturers worldwide and invites cooperation from all companies and institutions in the field of reagents, kits, antibodies, and many other products for life science, biochemistry, and biotechnology. Its professional team is equipped with excellent technical support and thoughtful customer service. As most of its employees have earned a graduate (Ph.D. or M.S.) degree in life science, they can comprehend customers' questions or concerns and are always ready to provide individualized customer service of high standards.

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