

As real as it gets

GIBCO® AlgiMatrix™ 3D Culture System

- Higher-fidelity, animal-free scaffold for three-dimensional (3D) cell culture
- Ready to use for diverse cell types
- More consistent results than from animal-derived matrices

Developed by Invitrogen, the AlgiMatrix™ 3D Culture System (Figure 1) is the first user-friendly, animal-free bioscaffold available for the development of higher-fidelity cell culture models that are more predictive of disease states and drug responses.

3D cell culture that resembles *in vivo* conditions

The AlgiMatrix™ alginate sponge creates a cell culture model that more closely reflects normal cell morphology and behavior, to meet researchers' 3D cell culture requirements in such fields as toxicology, drug development, cancer and stem cell research, development and morphogenesis, and tissue and organ engineering.

Convenient and ready to use

The AlgiMatrix™ 3D Culture System is available in various formats that integrate well into any workflow. Cells can be inoculated directly into the sterile microtiter plates preloaded with lyophilized alginate sponge. Plates and buffer are stable at room temperature and ready to use.

Less variable than animal-derived matrices

Other commercially available 3D matrices—including agar and Matrigel™—are either difficult to use or are of animal origin, with significant lot-to-lot variability that can compromise performance. The AlgiMatrix™ sponge is formulated using USP-grade raw material from brown seaweed. Its pure, chemically defined, and nontoxic macroporous structure yields improved lot-to-lot consistency, superior cell loading, and excellent nutrient delivery without damage to cells. The AlgiMatrix™ sponge is biodegradable and is stable at room temperature.

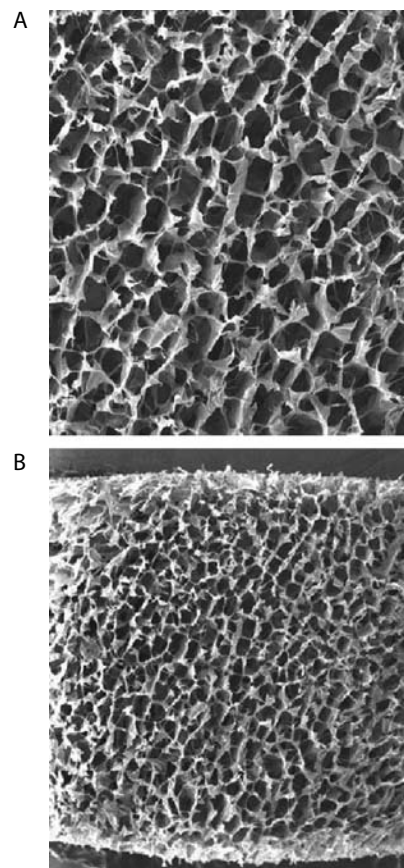


Figure 1—Magnified views of AlgiMatrix™ alginate sponge showing its highly porous structure (A) and pore interconnectivity (B).

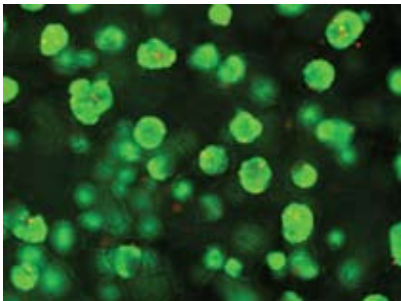


Cell Culture



Figure 2—Firm Algimatrix™ sponge from a 6-well plate format can be easily transferred for downstream processing.

A



B

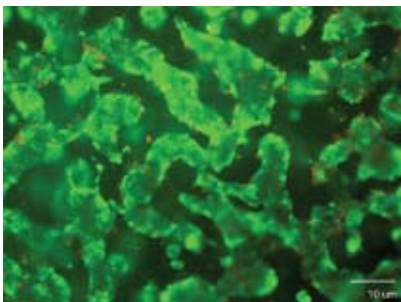


Figure 3—C3A cells grown in the Algimatrix™ sponge and stained with Live/Dead Stain® Viability/Cytotoxicity Kit. (A) Cells grown in DMEM for 4 weeks form spheroids in Algimatrix™ 6-well plates. (B) Cells grown in DMEM for 4 weeks in a firmer Algimatrix™ sponge, produced by using a higher concentration of Algimatrix™ Firming Buffer, form interconnected 3D structures.

Broad range of applications

The Algimatrix™ 3D Culture System is now available in 96-well, 24-well, and the new 6-well plate formats. Also available is Algimatrix™ Firming Buffer, which can be used during cell seeding to create a firmer alginate sponge that makes media changes and other manipulations a snap (Figure 2). This broad applicability fulfills a critical need for cell-based screening, drug discovery, toxicology, and *in vitro* human cell therapy research (Figure 3).

Peace of mind with each lot

The Algimatrix™ 3D Culture System is backed by the high quality production standards, customer service, technical support, and other extensive offerings that make GIBCO® the most trusted name in cell culture. It is manufactured in compliance with the FDA's Quality System regulation (cGMP) and the current requirements of ISO 9001, and cell-based toxicity testing is performed on each lot.

Visit us at www.invitrogen.com/algimatrix to learn more about the Algimatrix™ 3D Culture System and related products for 3D cell culture.

Ordering information

Product	Quantity	Cat. no.
Algimatrix™ 3D Culture System in 96-well plate	1	12684-015
	5 pack	12684-031
Algimatrix™ 3D Culture System in 24-well plate	1	12684-023
	4 pack	12684-049
Algimatrix™ 3D Culture System 6-well Kit (includes Firming Buffer)	1	A1098201
	4 pack	A1098202
Algimatrix™ Firming Buffer	50 ml	A1091501

GIBCO® supplies media, sera, and reagent technology that set the standard for reliability and productivity in cell culture systems.



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