



A SMARTER WAY TO BUILD BETTER MODELS

Flexible. Consistent. Effortless to Use.

UNIVERSAL BIOINK™

A semi-synthetic, multi-component bioink enabling high-fidelity tissue modeling for 3D cell culture and 3D bioprinting



ENGINEERED COMPOSITION

Semi-synthetic ECM-replicating formulation



FLEXIBILITY FOR RESEARCH

Reconstitution with your medium of choice



EASE OF HANDLING

Liquid when warm, viscous when cool—no ice



CONSISTENT PERFORMANCE

High batch-to-batch reproducibility

CONTROLLED GELATION & PHOTOCROSSLINKING

1



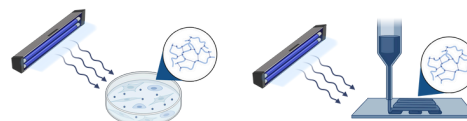
Mix with LAP

2



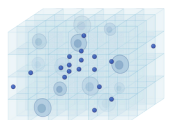
Mix with cells

3



Irradiate with 405 nm UV light

4



Form hydrogel



STIFFNESS THAT MATCHES THE MODEL

Aligns with the mechanical stiffness of key soft tissues—breast, lung, ovarian, and prostate

UNIVERSAL BIOINK™



HIGH CELL VIABILITY. CONSISTENT RESULTS.

Tested with a Triple-Negative Breast Cancer cell line (MDA-MB-231) using a commercial extrusion bioprinter

Over 80% Cell Viability Maintained > 7 Days

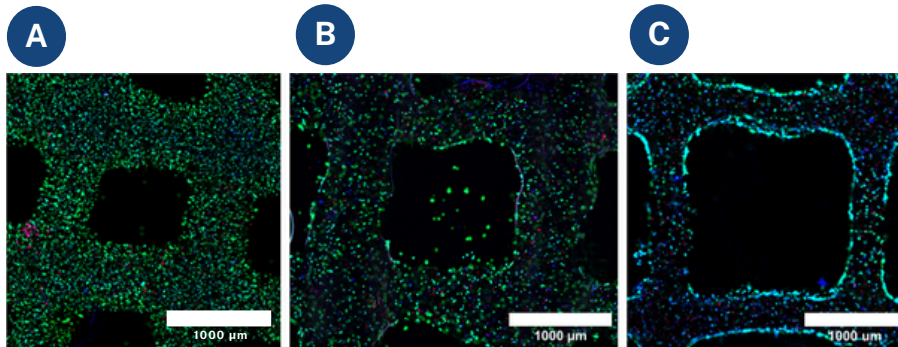


Figure 1. Merged live/dead and Hoechst-stained images of MDA-MB-231 cells encapsulated in Universal Bioink™ at Day 0 (A), Day 3 (B), and Day 7 (C). Live, dead, and Hoechst staining are represented in green, red, and blue, respectively.

Reproducible Across Batches

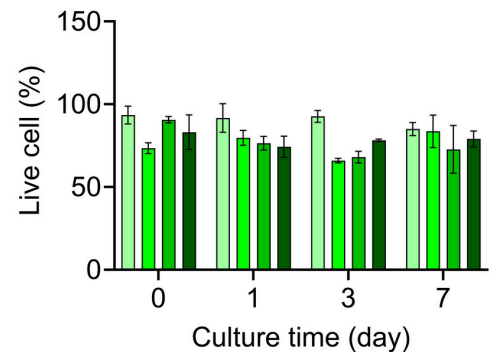


Figure 2. Cell viability, cell death, and metabolic activity in MDA-MB-231 cells printed via four different batches of Universal Bioink™. Percentage of live cells measured via Live/ from Day 0 to Day 7.

UPGRADE FROM TRADITIONAL ECMs

Universal Bioink™ delivers the control, consistency, and flexibility missing in traditional ECMs



Scan to see a full side-by-side comparison