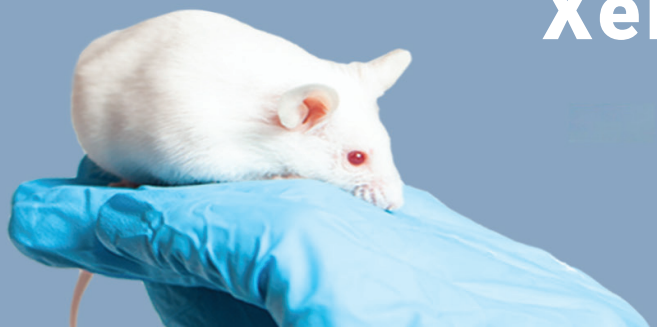


Xenograft Applications

VitroGel®

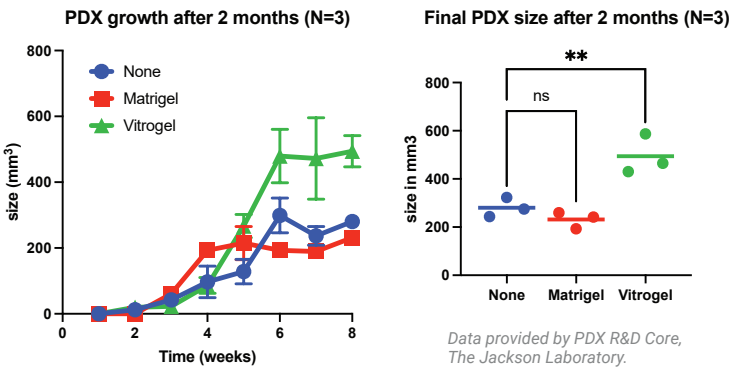
xeno-free hydrogel for PDX & CDX

VitroGel® xeno-free hydrogels are excellent for injection and a superior alternative to animal-based or plant-based extracellular matrices (ECM) for patient-derived or cell line-derived xenograft (PDX & CDX) applications. By avoiding the uncertainty of unknown components from animal-based ECM, VitroGel hydrogels give well-defined and full control of the microenvironment for consistent results.

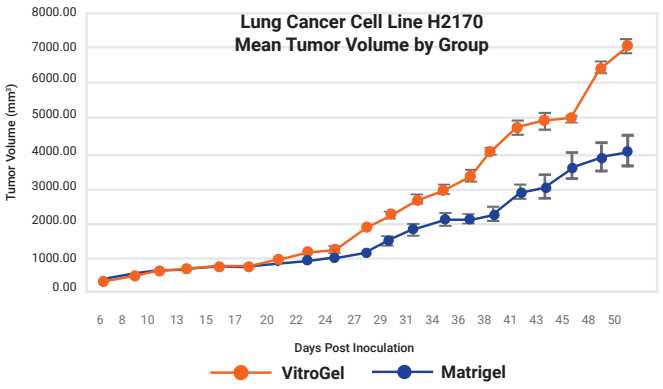
Superior Hydrogel Properties for Injection

VitroGel® (xeno-free)		VS.	Animal-Based ECM
Ready-to-use. User-friendly setup and protocols at room temperature.	Room Temp Stable	Cold Temp Requirement	Requires cold temperature for setup and operation. Not user-friendly.
100% animal origin-free. Reproducible assays with no lot-to-lot variation.	Xeno-Free	Animal- Based	Animal-based with undefined compounds. Lot-to-lot variation.
Maintains injectablity for hours at room temp. Can prepare samples in large volumes.	Long Injectable Status	Rush for Injection	Crosslinking is temperature sensitive. Samples need to be prepared in small volumes.
Extremely smooth for injection and excellent cell retention after injection.	Smooth Injection & High Cell Retention	Possible Needle Clogging	Requires quick injection. Temperature fluctuation can cause needle clogging.
Full control of the ECM supplements. Biodegradable and supports cell activities.	Full ECM Control	Undefined Compounds	**> 2,000** undefined compounds which can interfere with accurate tumor growth analysis.

Fast Cell Growth Kinetics



Data provided by PDX R&D Core, The Jackson Laboratory.



PDX — VitroGel vs Matrigel: PDX Lung Cancer Tissue Fragments

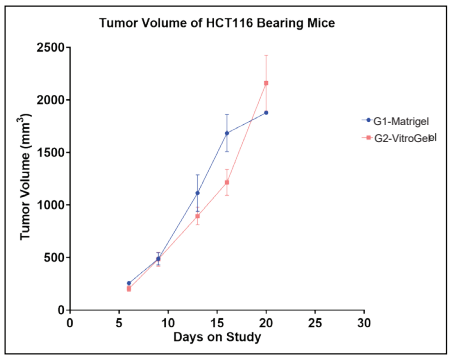
VitroGel shows better tumor growth and tumor size over Matrigel for PDX lung cancer tissue fragments. The PDX R&D Core at The Jackson Laboratory comments on the consistency and smooth operational use with VitroGel with the mouse not showing darkening or bruising at the injection site as opposed to Matrigel.

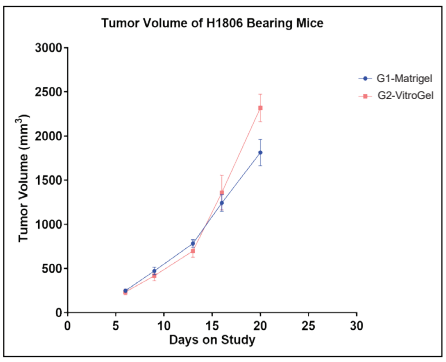
CDX — VitroGel vs Matrigel: CDX Lung Cancer Cell Line H2170

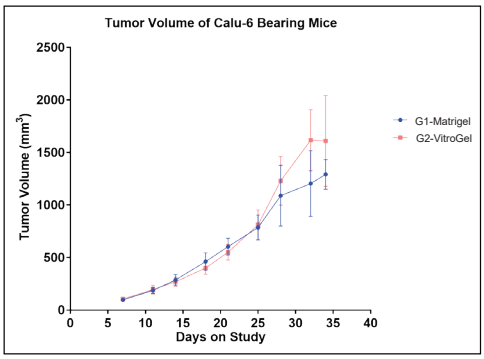
Human-derived cancer cell line (H2170 lung cancer cells) were mixed with VitroGel and Matrigel respectively, and xenografted into Hera BioLabs' SRG Rat model for comparison. VitroGel can support the growth of xenografted human lung cancer tissue at least as well as Matrigel in a rodent host.

Supports a Wide Range of Cell Types

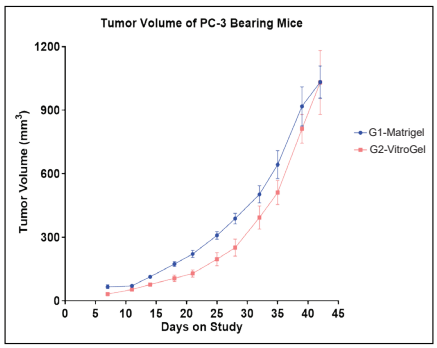
VitroGel vs. Matrigel in Fast Growing Models

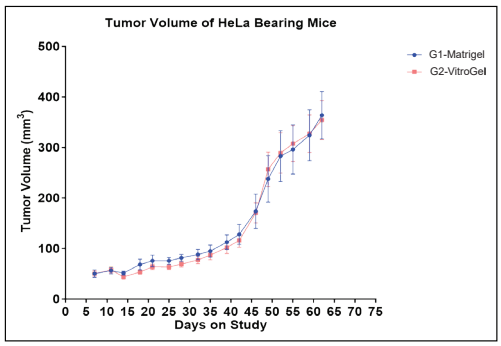






VitroGel vs. Matrigel in Slow Growing Models





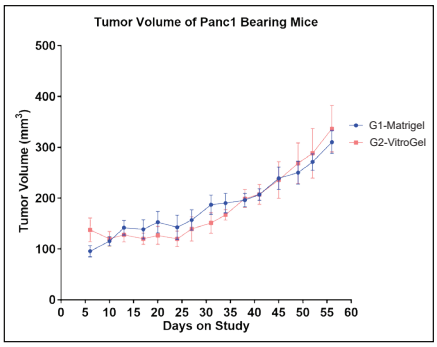


Table of Cells Using VitroGel for Xenograft Applications

Tissue Types	Cell Name	VitroGel Cat No.	Tumor Formation Rate	Host
Breast	Hs578T, MDA-MB-231, HCC1806	VHM01, TWG003	100%	NSG Mouse, Nude Mouse
Cervical	HeLa	VHM01	100%	Nude Mouse
Colon	HCT-116	VHM01	100%	NSG Mouse, Nude Mouse
Fibrosarcoma	HT1080	VHM01	100%	SRG Rat
Glioma	U87-MG	VHM01	100%	Nude Mouse
Kidney	786-O	VHM01	100%	SRG Rat
Leukemia	CCRF-CEM, Reh-GFP	VHM01	100%	NSG Mouse, Nude Mouse
Lung	A549, PDX Lung Cancer Tissue Fragments, Calu-6, H2170	VHM01	100%	NSG Mouse, Nude Mouse
Melanoma	A375	VHM01	100%	Nude Mouse
Oral Cavity	HSC-2	VHM01	100%	Nude Mouse
Pancreatic	ASPC-1, PANC1	VHM01	100%	NSG Mouse, Nude Mouse
Prostate	PC3	VHM01	100%	Nude Mouse, SRG Rat
Tongue	CAL-27	VHM01	100%	Nude Mouse

VHM01=VitroGel Hydrogel Matrix | TWG003=VitroGel RGD

Visit thewellbio.com/xenograft-injection for a complete updated list.

Please contact support if you do not see a cell type of interest listed. support@thewellbio.com

Scan me to learn more

US Toll-Free: 866.3D.CELLS
Phone: +1 973.855.4955
Email: info@thewellbio.com
Web: thewellbio.com

TheWell Bioscience
675 US Highway 1
North Brunswick, NJ 08902

TheWell BIOSCIENCE

© 2023 TheWell Bioscience Inc. All rights reserved. For research use only. All trademarks and trade names are the property of their respective holders. Rev 1.2

JUST ADD CELLS - VITROGEL