



# TissueSpec® ECM Scaffold

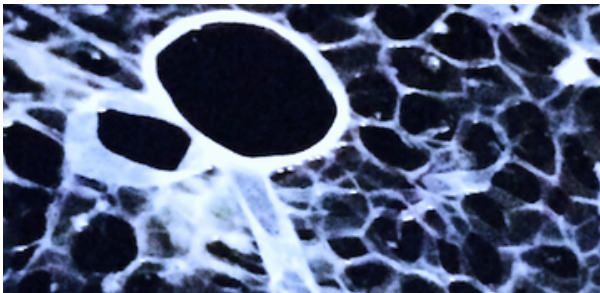
**TissueSpec® ECM Scaffolds** are custom acellular matrix substrates that retain the natural 3D structure, biomechanics, and topography of native tissues (porcine). Scaffolds contain tissue-specific features and architecture, for example, tubular structures of the renal medulla (TissueSpec® Kidney ECM Scaffolds) and hepatic sinusoids (TissueSpec® Liver ECM Scaffolds).

Human matrix scaffolds are available through custom order.

## Features

- 3D acellular native matrix construct
- Derived from normal porcine tissues
- Preserves native tissue architecture
- Can be used in-vitro and in-vivo
- Compatible with fluorescence & light microscopy
- Customized in size
- Ready to use

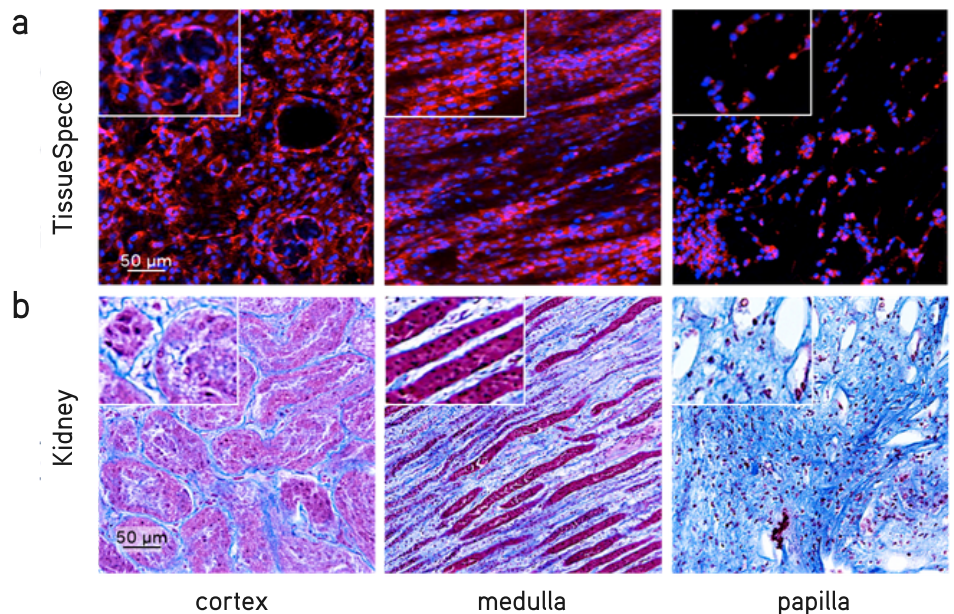
## Applications in 3D cell culture



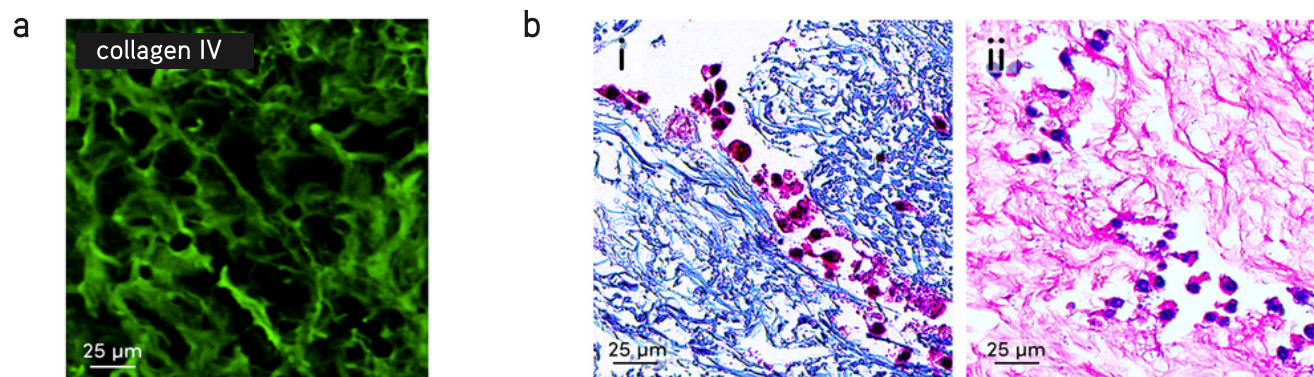
TissueSpec® ECM Scaffolds can be applied in 3D cell culture and tissue engineering to study the effects of native tissue mechanics and structure on the differentiation, migration, and function of cells. Cells migrate, attach, and integrate into scaffolds to form 3D constructs while recapitulating their native phenotype, morphology, and gene expression.

## Stem cell structure formation in TissueSpec® Kidney ECM Scaffolds

Histologic comparison of (a) kidney stem cells recapitulating native renal structures on TissueSpec® Kidney ECM Scaffolds and (b) native kidney. **TissueSpec® Kidney ECM Scaffolds guide kidney stem cells to generate 3D glomerular and tubular structures in vitro.**



# Liver cell integration in 3D TissueSpec® Liver ECM Scaffolds



TissueSpec® Liver ECM Scaffolds provide liver cells the 3D structure and biochemical environment of native liver.

(a) Liver scaffolds contain abundant collagen IV, a key component of the hepatic basement membrane.

(b) Liver cells (HepG2) were cultured in liver scaffolds for 7 days and stained with (i) trichrome (blue: collagens) and (ii) periodic acid-Schiff (pink: liver-specific matrix proteins) to visualize integration of liver cells into 3D liver scaffolds.

## Ordering information

TissueSpec® ECM Scaffold	Catalog #	Size
Blood Vessel ECM	MTSBV300	custom
Bone ECM	MTSBN300	custom
Cartilage ECM	MTSCT300	custom
Colon ECM	MTSCO300	custom
Esophagus ECM	MTSES300	custom
Heart ECM	MTSHT300	custom
Intestine ECM	MTSIN300	custom
Kidney ECM	MTSKY300	custom
Liver ECM	MTSLV300	custom
Lung ECM	MTSLG300	custom
Muscle ECM	MTSMK300	custom
Pancreas ECM	MTSPC300	custom
Skin ECM	MTSSK300	custom
Stomach ECM	MTSST300	custom

## Custom order

TissueSpec® ECM Scaffolds are available from additional organs, specific tissue regions, and alternative sources, including human.

## Contact

For additional information, please contact us at [info@xylyxbio.com](mailto:info@xylyxbio.com)

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