IN SITE™ Metastasis Kit

Accelerating cancer drug development

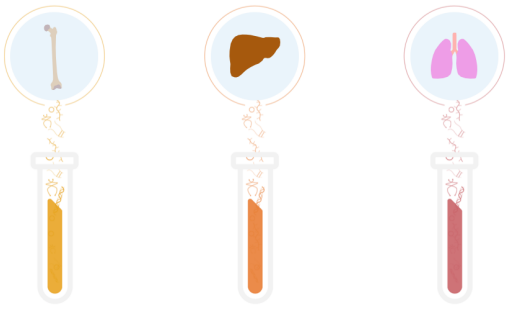
IN SITE™ Metastasis Kit contains bone, liver, and lung ECMs with tissue-specific compositions and mechanics to model colonization of tumor cells in common secondary sites. Recapitulation of site specific microenvironments is key to identify drivers of metastasis and targets for therapeutic intervention.

Features

- Contains bone, liver, and lung ECM substrates
- Provides site-specific environments
- Applicable in 2D and 3D in-vitro models
- Enables drug testing in secondary sites
- Compatible with high-throughput screening

Organ-specific ECM platform for accelerating drug development

IN SITE™ Metastasis Kit



Bone ECM Liver ECM Lung ECM

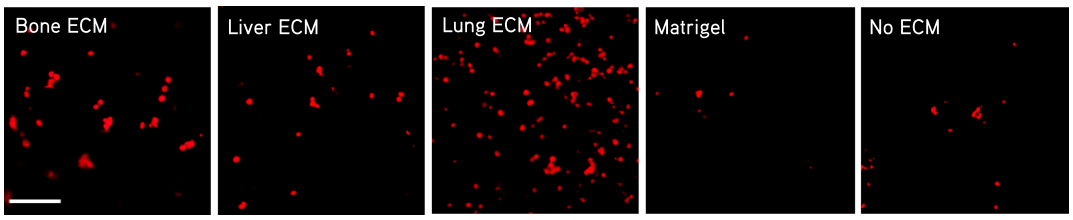
2D Coating Kit components:

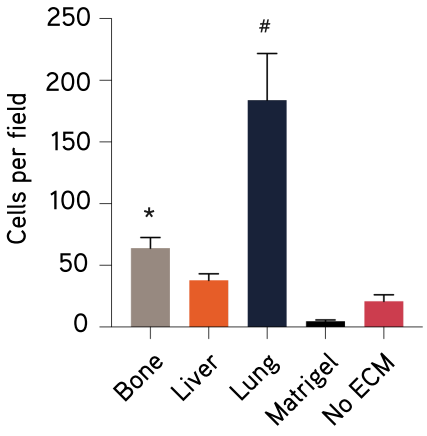
- NativeCoat™ Bone ECM
- NativeCoat™ Liver ECM
- NativeCoat™ Lung ECM

3D Hydrogel Kit components:

- TissueSpec® Bone ECM
- TissueSpec® Liver ECM
- TissueSpec® Lung ECM

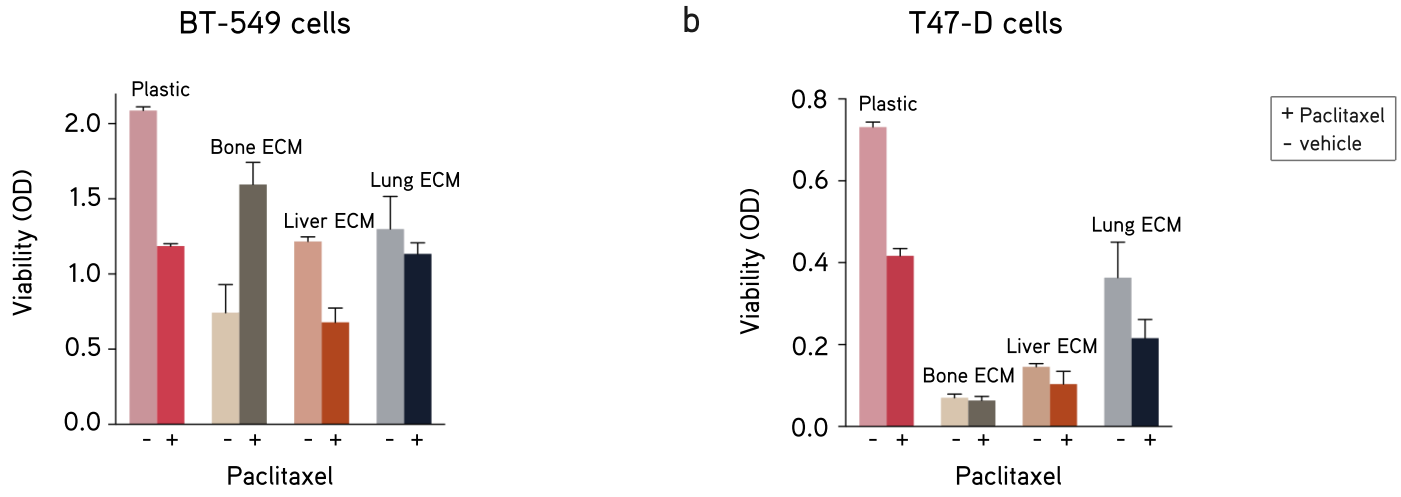
TissueSpec® ECM Hydrogels induce differential tumor cell migration





BT-549 breast cancer cells show significantly different migration through transwell membrane (pores: 8 µm) to TissueSpec® Bone, Liver, and Lung ECM Hydrogels. Cells per field are the average of five high-power fields. Two-way ANOVA, $p < 0.05$. Scale bar: 100 µm.

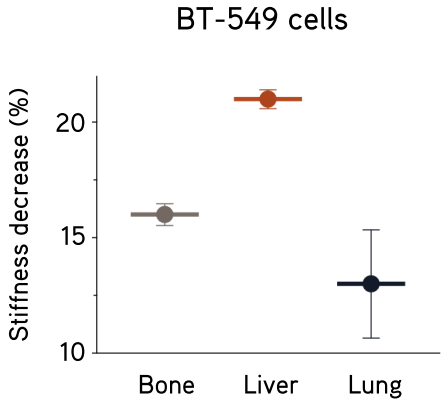
TissueSpec® ECM Hydrogels enable site-specific drug testing



Breast cancer cells (a) BT-549 and (b) T47-D in TissueSpec® Bone, Liver, and Lung ECM Hydrogels show differential responses in viability to Paclitaxel (5μM) or vehicle (DMSO) after 48 hours. OD, optical density.

Cancer cells remodel site-specific TissueSpec® ECM Hydrogels

TissueSpec® Bone, Liver, and Lung ECM Hydrogels have tissue-specific stiffnesses, which decrease due to differential ECM remodeling by BT-549 cells (6 x 10e5) after 48 hours.



Characterization of IN SITE™ Metastasis Kit components

ECM category	Protein	Bone	Liver	Lung
Collagens	type I, alpha 1 chain	•	•	•
	type IV, alpha 2 chain		•	•
	type V, alpha 2 chain	•	•	•
	type VI, alpha 5 chain		•	
Proteoglycans	heparan sulfate proteoglycan 2	•	•	•
	hyaluronan proteoglycan link protein 1			•
Glycoproteins	elastin	•		•
	fibronectin 1	•		
	laminin, gamma 1		•	•
	periostin	•		•
	tenascin C	•		

Mass spectrometry analysis (partial list) of bone, liver, and lung ECM substrates reveals characteristic compositions highly similar to human tissue matrisomes.

For partnering opportunities or other inquiries, contact us today at info@xylyxbio.com