NativeCoat™ ECM Surface Coatings

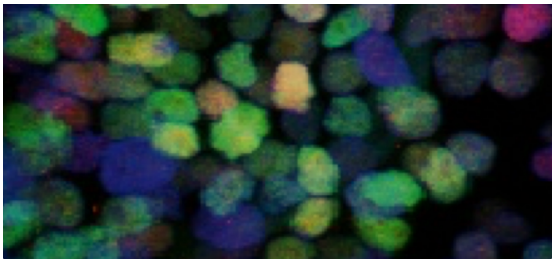
NativeCoat™ ECM Coating is a solubilized form of the extracellular matrix (ECM) from native tissues (porcine). NativeCoat™ ECM Coatings contain tissue-specific ECM components and signals, including adhesion molecules, matricryptic peptides, and growth factors that recapitulate the native cell environment in vitro.

Human ECM coatings are available through custom order.

Features

- Derived from normal porcine tissues
- Contains tissue-specific ECM components
- Lot-to-lot consistent
- Easy to use

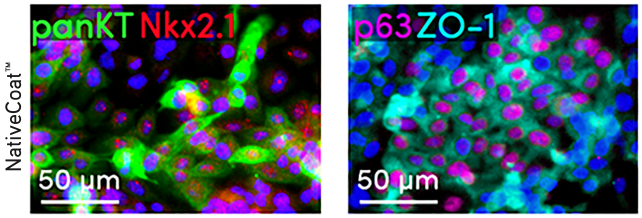
Cell-specific ECM coatings for 2D cell culture



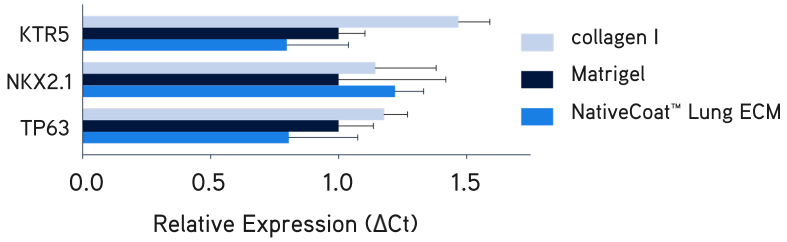
NativeCoat™ ECM is applied in 2D cell culture to coat cell culture surfaces. Coating with the tissue-specific biochemical composition of the native cell microenvironment results in increased cell attachment, viability and proliferation as well as enhanced function and activation of signaling pathways.

Maintenance of lung cell identity on NativeCoat™ Lung ECM

a Epithelial cell marker expression



b Epithelial cell gene expression



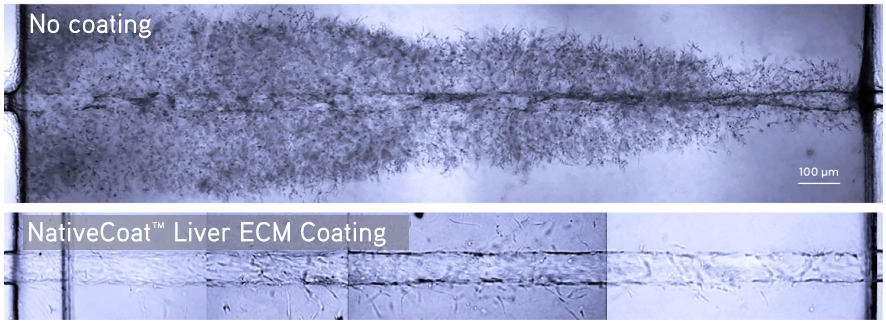
Primary normal human bronchial epithelial (NHBE) cells were cultured for 3 days on plasticware coated with NativeCoat™ Lung ECM, which supported (a,b) robust expression of normal lung epithelial cell markers similar to collagen I and Matrigel.

Viability of liver endothelial cells on NativeCoat™ Liver ECM

Liver-on-a-chip

Primary human liver sinusoidal endothelial cells cultured in microfluidic channels exhibited uncontrolled outgrowth and loss of viability after 7 days with no coating. In contrast, coating channels with NativeCoat™ Liver ECM supported controlled growth and viability of primary liver sinusoidal endothelial cells for 7 days.

Sinusoidal endothelial cell viability



Images courtesy of Nortis, Inc.

NativeCoat™ Liver ECM Coating composition & consistency

a Mass spec profile*

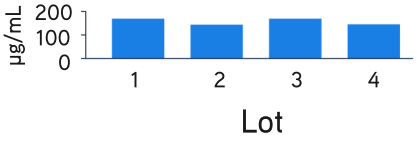
ECM components	Biomolecules
collagens	type I, II, III, IV, V, VI
laminins	laminin γ1
glycoproteins	fibrillin 1, 2 mucin 5AC, 6
proteoglycans	heparin sulfate
matrix-associated	albumin

* partial list of components

b Key components (µg/mL)

collagens	150-170
elastin	7-19
glycosaminoglycans	0.5-2.5

c Collagen



(a) Proteomic profile by mass spectrometry indicates that NativeCoat™ Liver ECM has a unique, liver-specific signature. (b) Ranges of key liver matrix components. (c) Collagen quantification demonstrates a consistent protein profile across multiple NativeCoat™ Liver ECM lots.

Ordering information

NativeCoat™ ECM Surface Coating	Catalog #	Volume
Blood Vessel ECM	custom	1mL
Bone ECM	MTSBN201	1mL
Cartilage ECM	MTSCT201	1mL
Colon ECM	custom	1mL
Heart ECM	MTSHT201	1mL
Intestine ECM	MTSIN201	1mL
Kidney ECM	MTSKY201	1mL
Liver ECM	MTSLV201	1mL
Lung ECM	MTSLG201	1mL
Pancreas ECM	custom	1mL
Skin ECM	MTSSK201	1mL
Stomach ECM	custom	1mL

Custom order

NativeCoat™ ECM Coating is available from additional organs, specific tissue regions, and alternative sources, including human.

Contact

For additional information, please contact us at info@xylyxbio.com

Xylyx Bio
760 Parkside Avenue
Brooklyn, New York 11226