



# Compound testing services IN MATRICO® Lung Fibrosis Assays

Fibrotic lung ECM is an integral component of idiopathic pulmonary fibrosis (IPF). Current lung fibrosis modeling and compound testing platforms do not incorporate fibrotic lung ECM, and therefore lack a defining part of the IPF environment. Utilizing 3D human lung ECM technology, Xylyx Bio offers compound testing services IN MATRICO® for physiologically-relevant testing predictive of human IPF disease biology.

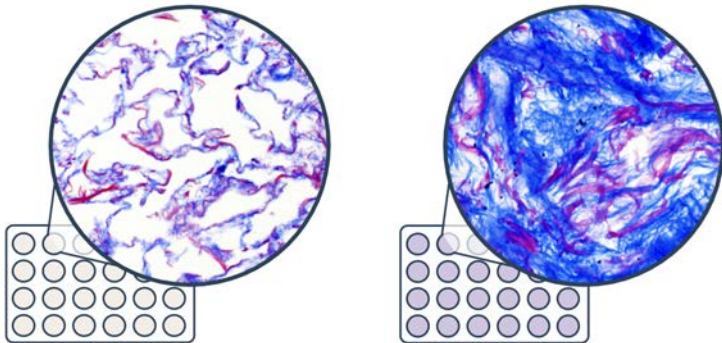
## Advantages

- Recapitulates human lung fibrosis in vitro
- Utilizes primary human fibrotic lung ECM
- Compound testing in a disease-relevant environment
- Informed by IPF clinical pathology data

## Human lung ECM platform for compound testing

Normal Lung ECM Scaffolds

Fibrotic Lung ECM Scaffolds



IN MATRICO® Lung Fibrosis Assay plates

*Insets: Representative trichrome staining of normal (left) and fibrotic (right) lung ECM scaffolds.*

## IN MATRICO® Lung Fibrosis Assays

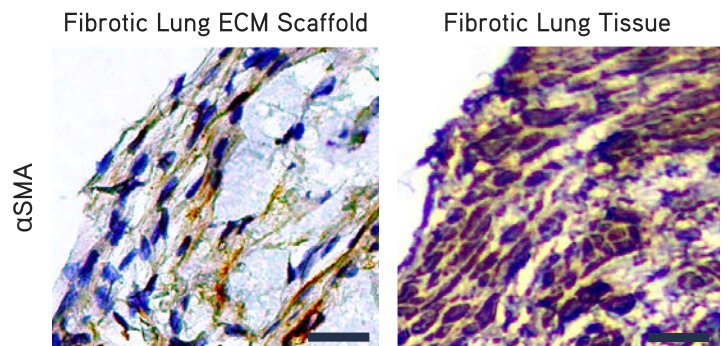
Pulmonary fibrosis assays utilizing 3D human lung TissueSpec® ECM technology for disease-relevant testing.

Standard offering includes 3 IN MATRICO® Fibrosis Assays:

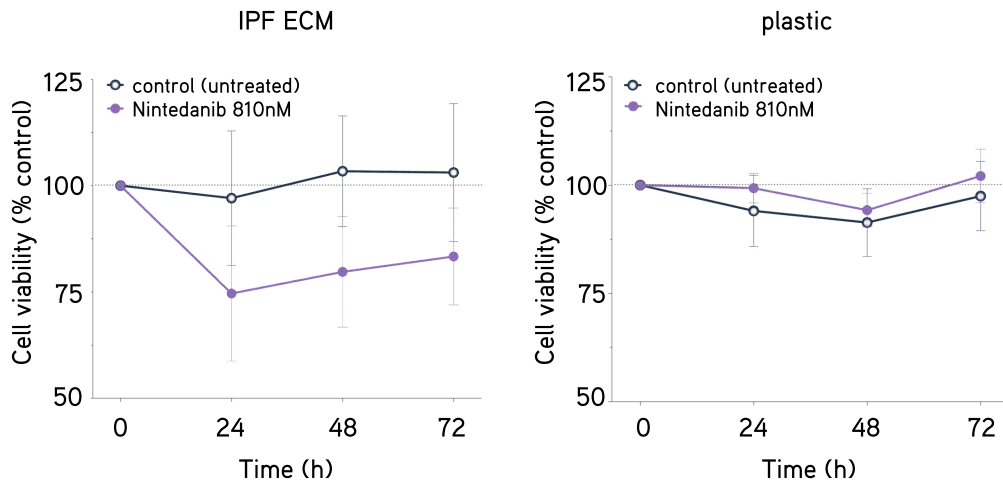
- Viability
- Gene expression
- Protein secretion

## Fibrotic phenotype of lung fibroblasts in human lung ECM

Fibrotic TissueSpec® Lung ECM Scaffolds support fibrotic phenotype of primary human lung fibroblasts significantly more consistent with human fibrotic lung tissue than cells cultured on plastic. Immunostaining of alpha smooth actin ( $\alpha$ SMA). Scale bar: 25  $\mu$ m

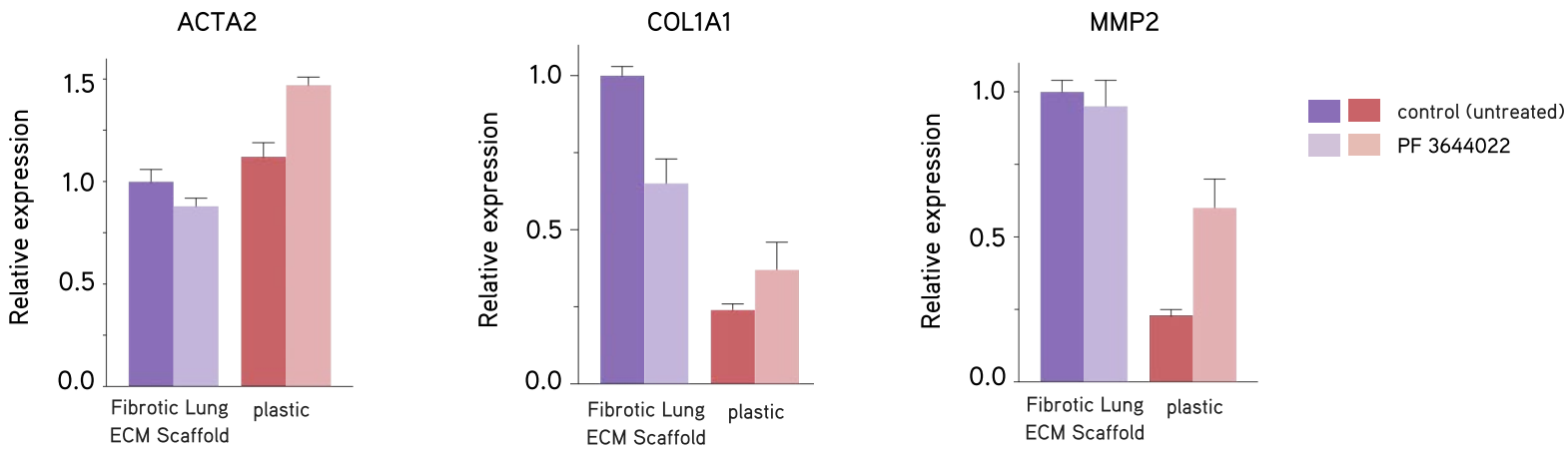


## Viability assay



IN MATRICO® Lung Fibrosis Assay utilizing Fibrotic TissueSpec® Lung ECM Scaffolds enables predictive drug testing. Viability of primary human lung fibroblasts in Fibrotic Lung ECM Scaffolds decreased after treatment with Nintedanib compared to plastic, where no response was observed.

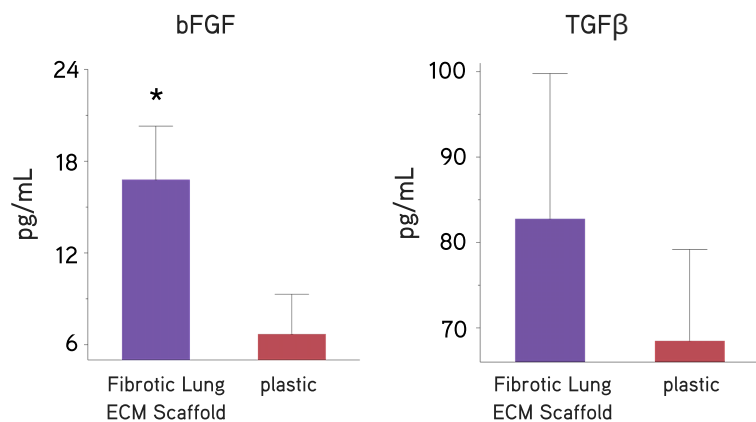
## Gene expression assay



IN MATRICO® Lung Fibrosis Assay provides a human fibrotic lung ECM testing environment. Changes in relative expression of fibrosis associated genes in Fibrotic Lung ECM Scaffolds are consistent with physiological response, unlike on collagen-coated plastic.

## Protein secretion assay

Secretion of fibrosis-associated growth factors by primary human lung fibroblasts is high in Fibrotic Lung ECM Scaffolds, demonstrating stronger activation and greater fidelity to fibrotic phenotype than on collagen-coated plastic. \*  $p < 0.05$ .



## Custom assay development

Our assay services team will work closely with you to develop and implement a bespoke assay package customized to your research needs.

For partnering opportunities, contact us today at [info@xylyxbio.com](mailto:info@xylyxbio.com)