PhenoCode Discovery Tissue Architecture Human Protein Module

PRODUCT INFORMATION

See Page 2 for detailed information.

STORAGE

- Antibodies: 4°C
- Reporters: -20°C*

*See PhenoCycler-Fusion User Guide (Doc# PD-000011) for details.

STABILITY

See expiration date of each antibody and reporter tube

ANTIGEN RETRIEVAL

AR9 (Akoya, Part# AR900250ML)

SPECIES REACTIVITY

Human

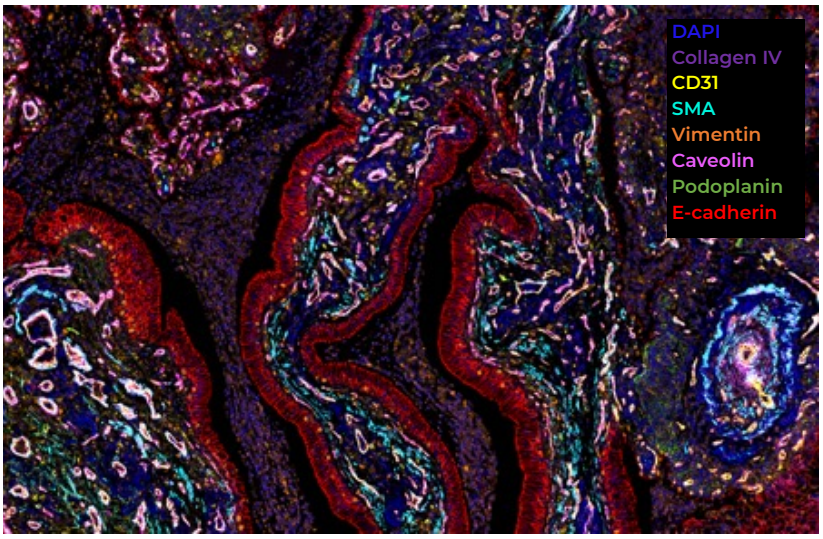
TISSUE TYPE

FFPE

SYSTEM COMPATIBILITY

The panel module has been optimized for the PhenoCycler-Fusion system.

Protocol for tissue staining can be found in the PhenoCycler-Fusion User Guide (Doc# PD-000011).



Human FFPE lung cancer tissue section was stained with the PhenoCode Discovery Tissue Architecture Human Protein Module and imaged on the PhenoCycler-Fusion system. Antigen retrieval was performed using AR9 (Akoya, Part# AR900250ML). All antibodies were diluted 1:200, except for Vimentin and Beta-actin, which were diluted 1:400.

The PhenoCode™ Discovery Tissue Architecture Human Protein Module enables detection of 10 markers on multiple tissues using the PhenoCycler®-Fusion system. It is intended to help researchers understand distribution of vasculature and look for epithelial-to-mesenchymal transition in the tumor microenvironment. It has been tested on cancer tissue.

Target	Biological Relevance
E-cadherin	Epithelial cells
SMA	Vascular structures, fibroblasts, smooth muscle
Vimentin	Cytostructures
Collagen IV	Extracellular matrix (ECM)
CD34	Vascular structures
CD31	Vascular structures
Beta-catenin1	Cell adhesion, Wnt signaling
Beta-actin	Cytoskeleton, housekeeping gene
Podoplanin	Lymphatics
Caveolin	Integral membrane protein

PhenoCode Discovery Tissue Architecture Human Protein Module

Contents of PhenoCode Discovery Tissue Architecture Human Protein Module

The PhenoCode Discovery Tissue Architecture Human Protein Module contains the following conjugated antibodies and reporters:

Target	Catalog #	Clone ID	Barcode	Reporter	Dilution Tonsil	Dilution Cancer
E-cadherin	4250021	AKYP0057	BX014	Atto 550-RX014	1:200	1:200
SMA	4450049	AKYP0081	BX013	Alexa Fluor™ 750-RX013	1:200	1:200
Vimentin	4450050	AKYP0082	BX022	Alexa Fluor™ 750-RX022	1:400	1:400
Collagen IV	4550122	AKYP0083	BX042	Alexa Fluor™ 647-RX042	1:200	1:200
CD34	4550133	AKYP0088	BX025	Alexa Fluor™ 647-RX025	1:200	1:200
CD31	4250104	AKYP0047	BX001	Atto 550-RX001	1:200	1:200
Beta-catenin1	4250091	AKYP0068	BX096	Atto 550-RX096	1:200	1:200
Beta-actin	4450092	AKYP0072	BX117	Alexa Fluor™ 750-RX117	1:500	1:400
Podoplanin	4250094	AKYP0007	BX121	Atto 550-RX121	1:200	1:200
Caveolin	4450084	AKYP0115	BX086	Alexa Fluor™ 750-RX086	1:200	1:200

Cycle Configuration on PhenoCycler-Fusion

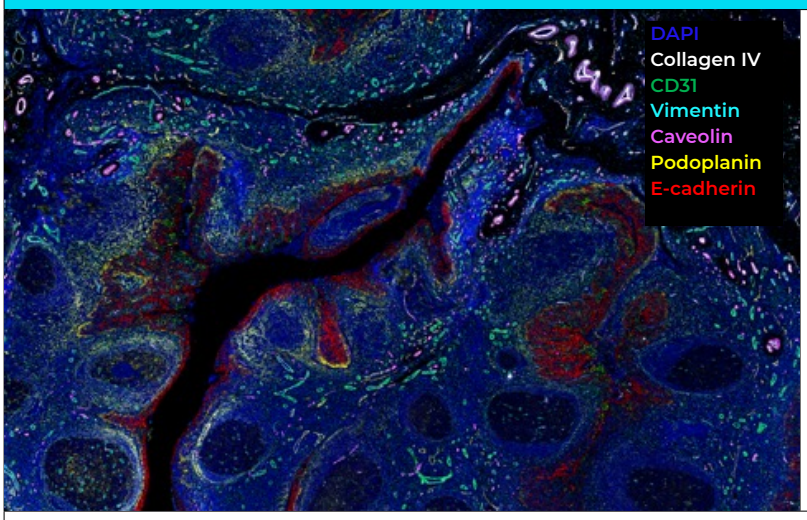
The PhenoCode Discovery Tissue Architecture Human Protein Module was validated using the following run cycle configuration on the PhenoCycler-Fusion system using standard recommendations for nuclear stain and blank cycles. The order and cycle configuration of markers can be changed as needed. Recommended exposure times are listed for imagining tonsil and lung cancer tissue. Exposure times are for PhenoCycler-Fusion only.

TONSIL TISSUE	Atto 550		Alexa Fluor 647		Alexa Fluor 750	
Cycle Order	Target-Barcode	Exposure Time (ms)	Target-Barcode	Exposure Time (ms)	Target-Barcode	Exposure Time (ms)
1	E-cadherin-BX014	100	Collagen IV-BX042	125	Vimentin-BX022	60
2	CD31-BX001	50	CD34-BX025	125	SMA-BX013	80
3	Beta-catenin1-BX096	100	--	--	Beta-actin-BX117	50
4	Podoplanin-BX121	100	--	--	Caveolin-BX086	50

CANCER TISSUE	Atto 550		Alexa Fluor 647		Alexa Fluor 750	
Cycle Order	Target-Barcode	Exposure Time (ms)	Target-Barcode	Exposure Time (ms)	Target-Barcode	Exposure Time (ms)
1	E-cadherin-BX014	100	Collagen IV-BX042	125	Vimentin-BX022	60
2	CD31-BX001	50	CD34-BX025	125	SMA-BX013	80
3	Beta-catenin1-BX096	100	--	--	Beta-actin-BX117	50
4	Podoplanin-BX121	100	--	--	Caveolin-BX086	50

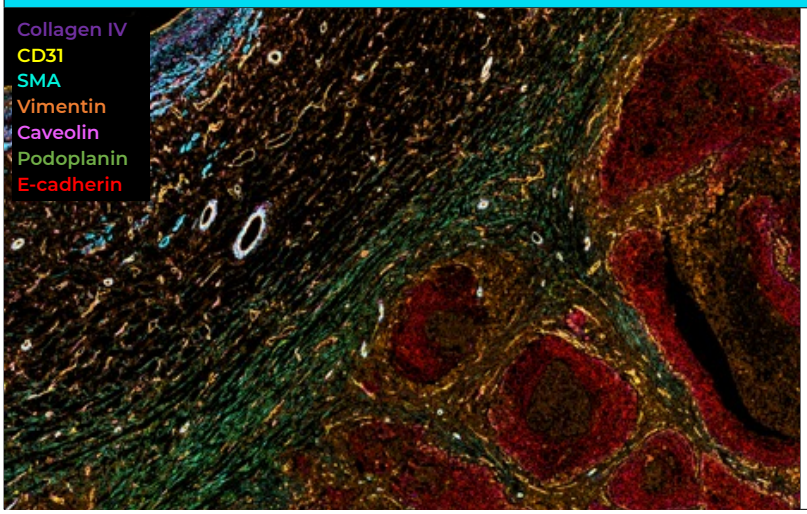
PhenoCode Discovery Tissue Architecture Human Protein Module

HUMAN FFPE TONSIL SECTION



Human FFPE tonsil section was stained with the PhenoCode Discovery Tissue Architecture Human Protein Module and imaged on the PhenoCycler-Fusion system. Representative imaging regions show Vimentin (cyan), Caveolin (magenta), Podoplanin (yellow), E-cadherin (red), CD31 (green), Collagen IV (white) and DAPI (blue). Antigen retrieval was performed using AR9 (Akoya, Part# AR900250ML). All antibodies shown here were diluted 1:200 except for Vimentin, which was diluted 1:400.

HUMAN FFPE LUNG CANCER SECTION



Human FFPE lung cancer section was stained with the PhenoCode Discovery Tissue Architecture Human Protein Module and imaged on the PhenoCycler-Fusion system. Representative imaging regions show Caveolin (magenta), E-cadherin (red), Podoplanin (green), Vimentin (orange), SMA (cyan), CD31 (yellow) and Collagen IV (dark purple). Antigen retrieval was performed using AR9 (Akoya, Part# AR900250ML). All antibodies shown here were diluted 1:200 except for Vimentin, which was diluted 1:400.

PD-000067 Rev. B

AKOYA BIOSCIENCES®
THE SPATIAL BIOLOGY COMPANY®