PhenoCode Discovery Lymphocyte Profiling 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

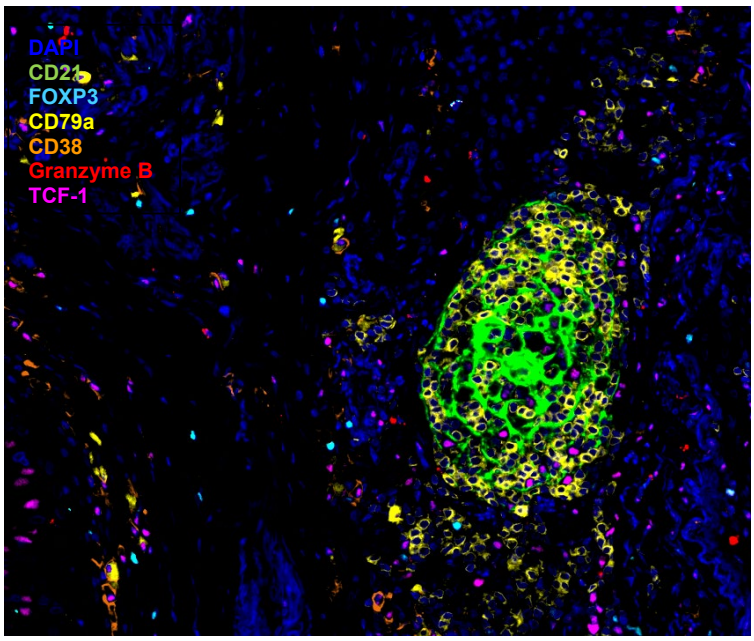
TISSUE TYPE

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 Lymphocyte Profiling 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.

The PhenoCode™ Discovery Lymphocyte Profiling Human Protein Module enables detection of 8 markers on multiple tissues using the PhenoCycler®-Fusion system. It is intended to help researchers understand the types and states of T cells and B cells in the tumor microenvironment.

Target	Biological Relevance
TOX	T cell exhaustion
FOXP3	Regulatory T cells
Granzyme B	Activated T cells/NK cells
CD21	B cells
CD79a	B cells
TCF-1	Wnt signaling
CD107a	CD8+ and NK cells; lysosomal marker
CD38	Plasma B cells

PhenoCode Discovery Lymphocyte Profiling Human Protein Module

Contents of PhenoCode Discovery Immune Profiling Human Protein Core

The PhenoCode Discovery Tissue Architecture Human Protein Module contains the following conjugated antibodies and reporters. Recommended starting dilutions are listed for staining tonsil and lung cancer tissue on the PhenoCycler-Fusion system. Further optimization may be needed depending on the tissue.

Target	Catalog #	Clone ID	Barcode	Reporter	Dilution Tonsil	Dilution Cancer
TOX	4250067	AKYP0098	BX060	Atto 550-RX060	1:200	1:200
FOXP3	4550071	AKYP0102	BX031	Alexa Fluor™ 647 -RX031	1:200	1:200
Granzyme B	4550131	AKYP0086	BX041	Alexa Fluor™ 647-RX041	1:200	1:200
CD21	4450100	AKYP0061	BX032	Alexa Fluor™ 750-RX032	1:200	1:200
CD79a	4250103	AKYP0109	BX090	Atto 550-RX090	1:200	1:200
TCF-1	4550068	AKYP0099	BX061	Alexa Fluor™ 647-RX061	1:200	1:200
CD107a	4450101	AKYP0004	BX006	Alexa Fluor™ 750-RX006	1:200	1:200
CD38	4450099	AKYP0110	BX035	Alexa Fluor™ 750-RX035	1:200	1:200

Cycle Configuration on PhenoCycler-Fusion

The PhenoCode Discovery Immune Profiling Human Protein Core was run using the following 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.

Cycle Order	Atto 550	Alexa Fluor 647	Alexa Fluor 750
1	TOX	FOXP3	CD21
2	CD79a	Granzyme B	CD38
3		TCF-1	CD107a

Dilution and Exposure Time Recommendations

The following table indicates recommended starting dilutions and exposure times for staining and imaging tonsil and cancer tissue on the PhenoCycler-Fusion system. Further optimization may be needed depending on the tissue. Exposure times are for PhenoCycler-Fusion only.

	Tonsil		Cancer	
Target	Dilution	Exposure Time (ms)	Dilution	Exposure Time (ms)
TOX	1:200	125	1:200	125
FOXP3	1:200	125	1:200	125
Granzyme B	1:200	125	1:200	125
CD21	1:200	125	1:200	125
CD79a	1:200	125	1:200	125
TCF-1	1:200	125	1:200	125
CD107a	1:200	125	1:200	125
CD38	1:200	125	1:200	125

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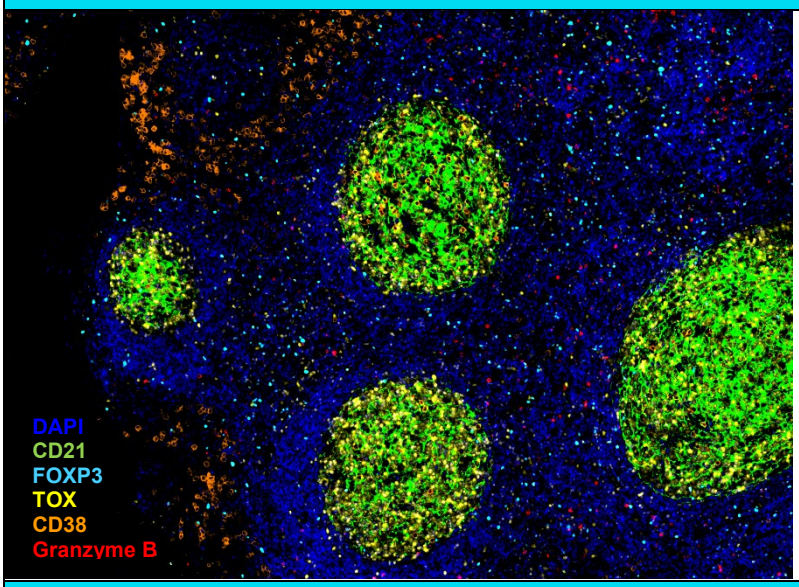
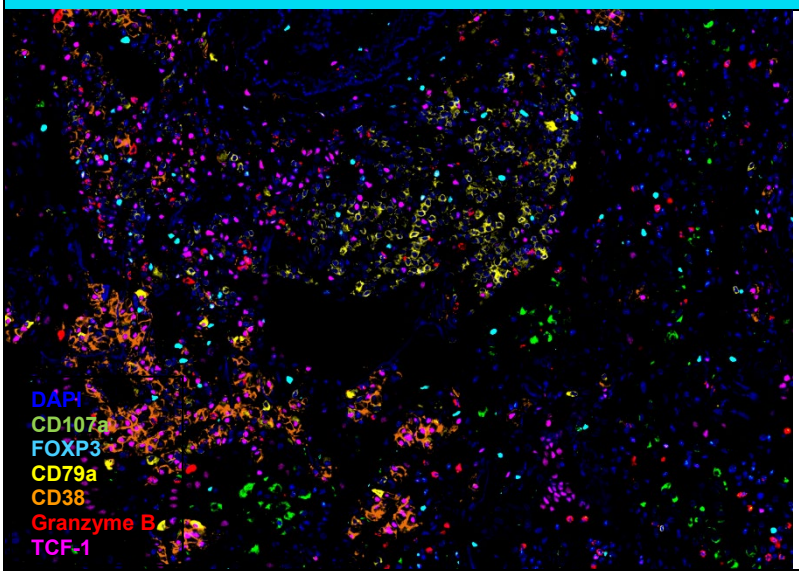
HUMAN FFPE TONSIL SECTION



Human FFPE tonsil section was stained with the PhenoCode Discovery Immune Profiling Human Protein Core and imaged on the PhenoCycler-Fusion system. Representative imaging regions showing FOXP3 (cyan), CD21 (green), TOX (yellow), Granzyme B (red), CD38 (orange), and DAPI (Blue). Antigen retrieval was performed using AR9 (Akoya, Part# AR900250ML). All antibodies were diluted 1:200.

HUMAN FFPE LUNG CANCER SECTION



Human FFPE lung cancer section was stained with the PhenoCode Discovery Immune Profiling Human Protein Core and imaged on the PhenoCycler-Fusion system. Representative imaging regions showing TCF-1(magenta), Granzyme B (red), CD107a (green), CD38 (orange), FOXP3 (cyan), CD79a (yellow) and DAPI (blue). Antigen retrieval was performed using AR9 (Akoya, Part# AR900250ML). All antibodies were diluted 1:200.

PD-000056 Rev A

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