![AKOYA BIOSCIENCES® THE SPATIAL BIOLOGY COMPANY®]

PhenoCode Discovery Immune Profiling Human Protein Core

CATALOG # PCDPC001

PRODUCT INFORMATION

See Page 2 for detailed information.

QUANTITY
- Up to 25 tests

CONTENTS
- 15 antibody tubes
- 15 reporter tubes

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)
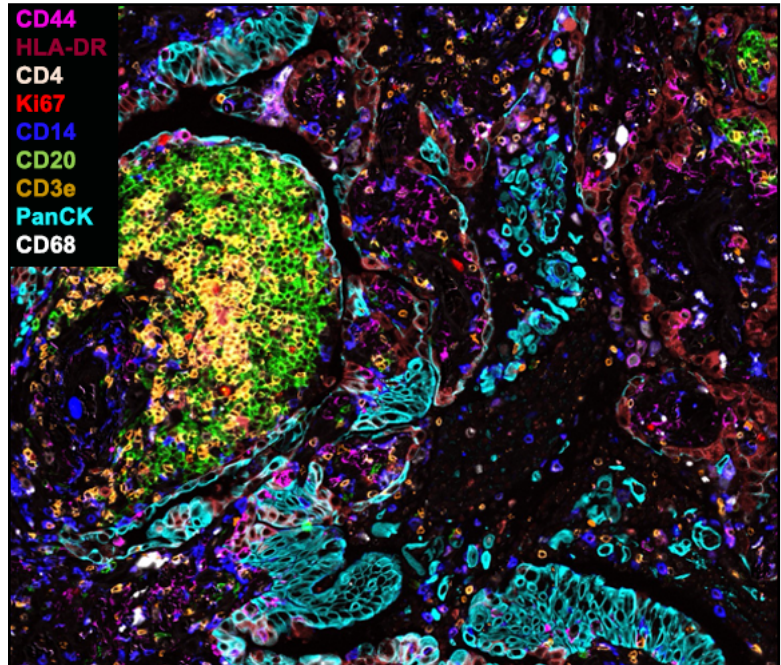
SPECIES REACTIVITY
Human

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 Immune Profiling Human Protein Core and imaged on the PhenoCycler-Fusion system.

The PhenoCode™ Discovery Immune Profiling Human Protein Core panel module enables detection of 15 markers on multiple tissues using the PhenoCycler®-Fusion system. It is intended to help researchers understand the abundance and spatial organization of distinct immune cell populations in the tumor microenvironment. It has been tested on multiple cancer tissues.

Target	Biological Relevance
CD4	Helper T cells
CD68	Macrophages
CD20	B cells
CD11c	Dendritic cells
CD8	Cytotoxic T cells
HLA-DR	APCs (MHC II)
CD3e	T cells
CD44	Activated T cells
CD45	Immune cells
HLA-A	MHC-I
CD14	Monocytes
Ki67	Proliferating cells
CD56	NK cells
CD45RO	Memory T cells
Pan-Cytokeratin	Tumor cells

PhenoCode Discovery Immune Profiling Human Protein Core

CATALOG # PCDPC001

Contents of PhenoCode Discovery Immune Profiling Human Protein Core

The PhenoCode Discovery Immune Profiling Human Protein Core contains the following conjugated antibodies and reporters:

Target	Clone ID	Barcode	Reporter
CD4	AKYP0048	BX003	Alexa Fluor™ 647-RX003
CD68	AKYP0050	BX015	Alexa Fluor 647-RX015
CD20	AKYP0049	BX064	Alexa Fluor 750-RX064
CD11c	AKYP0051	BX024	Alexa Fluor 647-RX024
CD8	AKYP0028	BX026	Atto 550-RX026
HLA-DR	AKYP0063	BX033	Alexa Fluor 750-RX033
CD3e	AKYP0062	BX080	Alexa Fluor 647-RX080
CD44	AKYP0073	BX005	Atto 550-RX005
CD45	AKYP0074	BX021	Atto 550-RX021
HLA-A	AKYP0078	BX029	Atto 550-RX029
CD14	AKYP0079	BX037	Atto 550-RX037
Ki67	AKYP0052	BX047	Alexa Fluor 750-RX047
CD56	AKYP0118	BX028	Alexa Fluor 647-RX028
CD45RO	AKYP0059	BX017	Alexa Fluor 647-RX017
Pan-Cytokeratin	AKYP0053	BX066	Alexa Fluor 750-RX066

Cycle Configuration on PhenoCycler-Fusion

The PhenoCode Discovery Immune Profiling Human Protein Core 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.

Cycle Order	Atto 550	Alexa Fluor 647	Alexa Fluor 750
1	CD8	CD56	-
2	-	CD11c	-
3	CD44	CD4	HLA-DR
4	CD45	CD45RO	Ki67
5	CD14	CD3e	CD20
6	HLA-A	CD68	Pan-Cytokeratin

Dilution and Exposure Time Recommendations

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

Target	Tonsil		Cancer	
	Dilution	Exposure Time (ms)	Dilution	Exposure Time (ms)
CD4	1:200	100	1:200	100
CD68	1:200	100	1:200	100
CD20	1:200	100	1:200	100
CD11c	1:200	125	1:200	125
CD8	1:200	125	1:200	125
HLA-DR	1:200	125	1:200	125
CD3e	1:200	80	1:200	80
CD44	1:200	125	1:200	125
CD45	1:200	125	1:200	125
HLA-A	1:200	80	1:200	80
CD14	1:200	100	1:200	100
Ki67	1:200	80	1:200	80
CD56*	1:200	150	1:200	125
CD45RO	1:200	80	1:200	80
Pan-Cytokeratin	1:200	50	1:200	50

*Based on testing with breast cancer tissue.
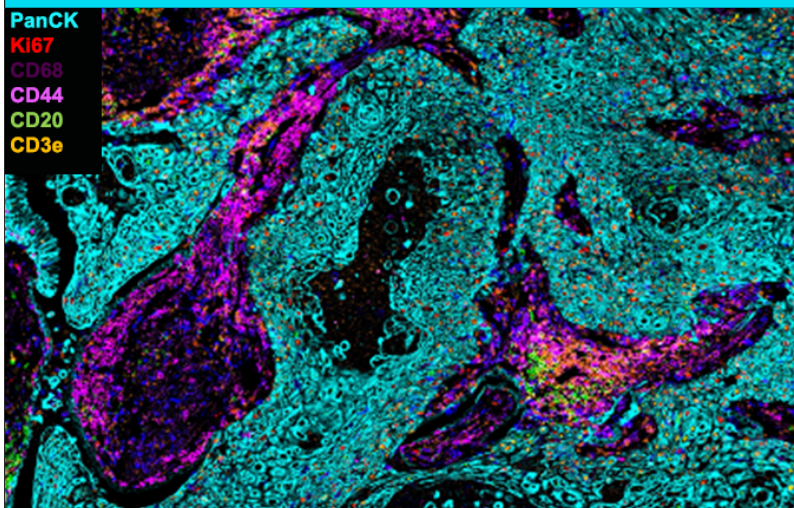
PhenoCode Discovery Immune Profiling Human Protein Core

CATALOG # PCDPC001

HUMAN FFPE TONSIL SECTION
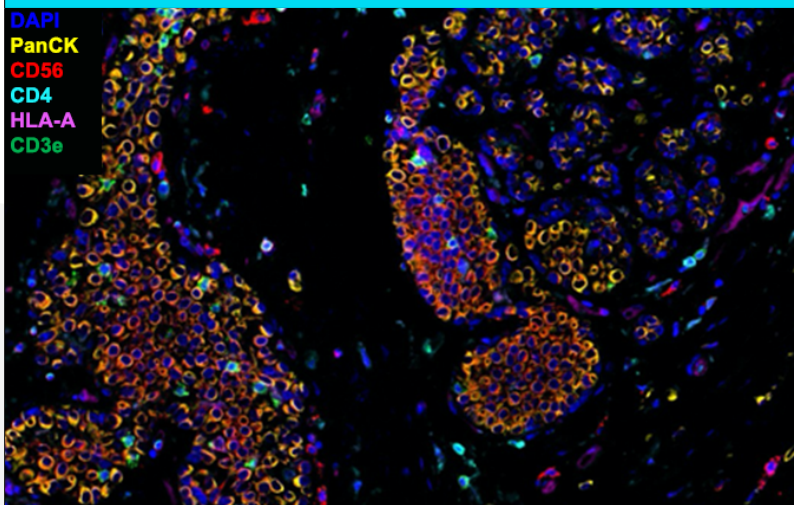

PanCK
CD68
CD44
CD14
CD20
CD3e
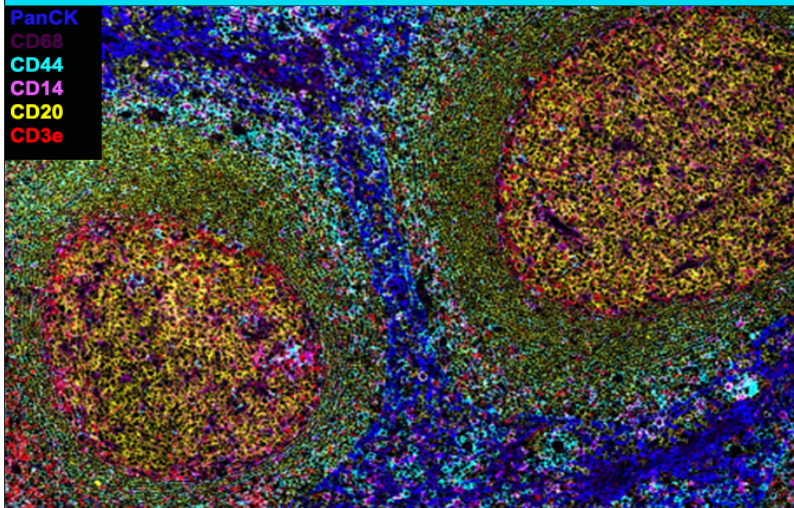
Human FFPE tonsil section was stained with the PhenoCode Discovery Immune Profiling Human Protein Core and imaged on the PhenoCycler-Fusion system. Representative imaging regions showing CD44 (cyan), CD14 (magenta), CD20 (yellow), CD3e (red), Pan-Cytokeratin (blue), and CD68 (dark purple). Antigen retrieval was performed using AR9 (Akoya, Part# AR900250ML). All antibodies were diluted 1:200.

HUMAN FFPE LUNG CANCER SECTION

PanCK
Ki67
CD68
CD44
CD20
CD3e

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 CD44 (magenta), Ki67 (red), CD20 (green), CD3e (orange), Pan-Cytokeratin (cyan), and CD68 (dark purple). Antigen retrieval was performed using AR9 (Akoya, Part# AR900250ML). All antibodies were diluted 1:200.

HUMAN FFPE BREAST CANCER SECTION

DAPI
PanCK
CD56
CD4
HLA-A
CD3e

Human FFPE breast cancer section was stained with the PhenoCode Discovery Immune Profiling Human Protein Core and imaged on the PhenoCycler-Fusion system. Representative imaging regions showing HLA-A (magenta), CD56 (red), CD3e (green), Pan-Cytokeratin (yellow), CD4 (cyan), and nuclear stain (blue). Antigen retrieval was performed using AR9 (Akoya, Part# AR900250ML). All antibodies were diluted 1:200.

To learn more visit **AKOYABIO.COM** or email us at **INFO@AKOYABIO.COM**

AKOYA
BIOSCIENCES®
THE SPATIAL BIOLOGY COMPANY®