

Multiplex Immunohistochemical Analysis of the Spatial Immune Cell Landscape of the Tumor Microenvironment

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Materials

Name	Company	Catalog Number	Comments
anti-CD14	Cell Marque	114R-16	section 3, clone EPR3653
anti-CD163	Cell Marque	163M-15	section 3, clone MRQ-26
anti-CD19	Abcam	ab134114	section 3, clone EPR5906
anti-CD1c (BDCA1)	Thermo Scientific	TA505411	section 3, clone OTI2F4
anti-CD20	Thermo Scientific	MS-340-S	section 3, clone L26
anti-CD3	Thermo Scientific	RM-9107	section 3, clone sp7
anti-CD303/BDCA2	Dendritics via Enzo Lifesciences/Axxora	DDX0043	section 3, clone 124B3.13
anti-CD56	Cell Marque	156R-94	section 3, clone MRQ-42
anti-CD66b	BD Biosciences	555723	section 3, clone G10F5
anti-CD68	Dako Agilent	M087601	section 3, clone PG-M1
anti-CD8	Dako Agilent	M7103	section 3, clone C8/144B
anti-Foxp3	Thermo Scientific	14-4777	section 3, clone 236A/E7
anti-Gp100	Dako Agilent	M063401	section 3, clone HMB45
anti-HLA-DR, DP, DQ	Santa Cruz	sc-53302	section 3, clone CR3/43
anti-MART-1	Thermo Scientific	MS-799	section 3, clone A103
anti-pan cytokeratin	Abcam	ab86734	section 3, clone AE1/AE3 + 5D3
anti-SOX10	Sigma Aldrich	383R	section 3, clone EP268
anti-Tyrosinase	Sanbio	MONX10591	section 3, clone T311
anti-XCR1	Cell Signaling Technologies via Bioké	44665S	section 3, clone D2F8T
antibody diluent	Akoya BioSciences	SKU ARD1001EA	section 3, from Opal 7-Color Automation IHC Kit 50 slide (can optionally also be replaced by TBST with 10% BSA)

Bond Aspirating Probe	Leica Biosciences	S21.0605	section 3
Bond Aspirating Probe Cleaning	Leica Biosciences	CS9100	section 3
Bond Dewax Solution	Leica Biosciences	AR9222	section 3
Bond Objectglas label + print lint	Leica Biosciences	S21.4564.A	section 3
Bond Research Detection System 2	Leica Biosciences	DS9777	section 3
Bond RX autostainer	Leica Biosciences	-	section 3, automated platform
Bond TM Epitope Retrieval 1 - 1 L	Leica Biosciences	AR9961	section 3
Bond TM Epitope Retrieval 2 - 1 L	Leica Biosciences	AR9640	section 3
Bond TM Wash Solution 10x - 1 L	Leica Biosciences	AR9590	section 3
BOND Universal Covertile	Leica Biosciences	S21.4611	section 3
Bond(TM) Titration Kit	Leica Biosciences	OPT9049	section 3
Coverslip 24 x 32 mm #1 (0.13-0.16 mm)	Fisher Scientific	15717592	section 2
coverslip 24 x 50 mm	VWR	631-0146	section 2
DAPI Fluoromount-G	VWR	0100-20	section 3, whenever monoplex slides need to be quickly checked, not for official analysis, then DAPI is stained separately for better results
Eosine			section 2, home made
Ethanol 99.5%	VWR	4099.9005	section 2
Fluoromount-G	VWR	0100-01	section 3
haematoxyline		-	section 2, home made
ImmuNet		-	immune cell detection and phenotyping pipeline
inForm software 2.4.10	Akoya BioSciences	-	section 4 & 6
OPAL 480 reagent pack	Akoya BioSciences	FP1500001KT	section 3
OPAL 520 reagent pack	Akoya BioSciences	FP1487001KT	section 3
OPAL 570 reagent pack	Akoya BioSciences	FP1488001KT	section 3
OPAL 620 reagent pack	Akoya BioSciences	FP1495001KT	section 3
OPAL 690 reagent pack	Akoya BioSciences	FP1497001KT	section 3
OPAL 780 reagent pack	Akoya BioSciences	FP1501001KT	section 3
Opal 7-Color Automation IHC Kit 50 slide	Akoya BioSciences	NEL821001KT	section 3
PhenoChart 1.1.0	Akoya BioSciences	-	section 5
PhenolImagerHT	Akoya BioSciences	CLS143455	section 4, digital pathology imager with slide viewer and imaging software (formerly known as Vectra Polaris)
Quick-D mounting medium	Klinipath	7280	section 2
QuPath 0.3.2			whole slide image analysis software platform
R 4.1.1			
Slide boxes	VWR	631-0737	section 1
SuperFrost Plus	Thermo Scientific through VWR	631-9483	section 1
Vectra Polaris software 1.0.13	Akoya BioSciences	-	section 4
Xylene	VWR	4055-9005	section 2