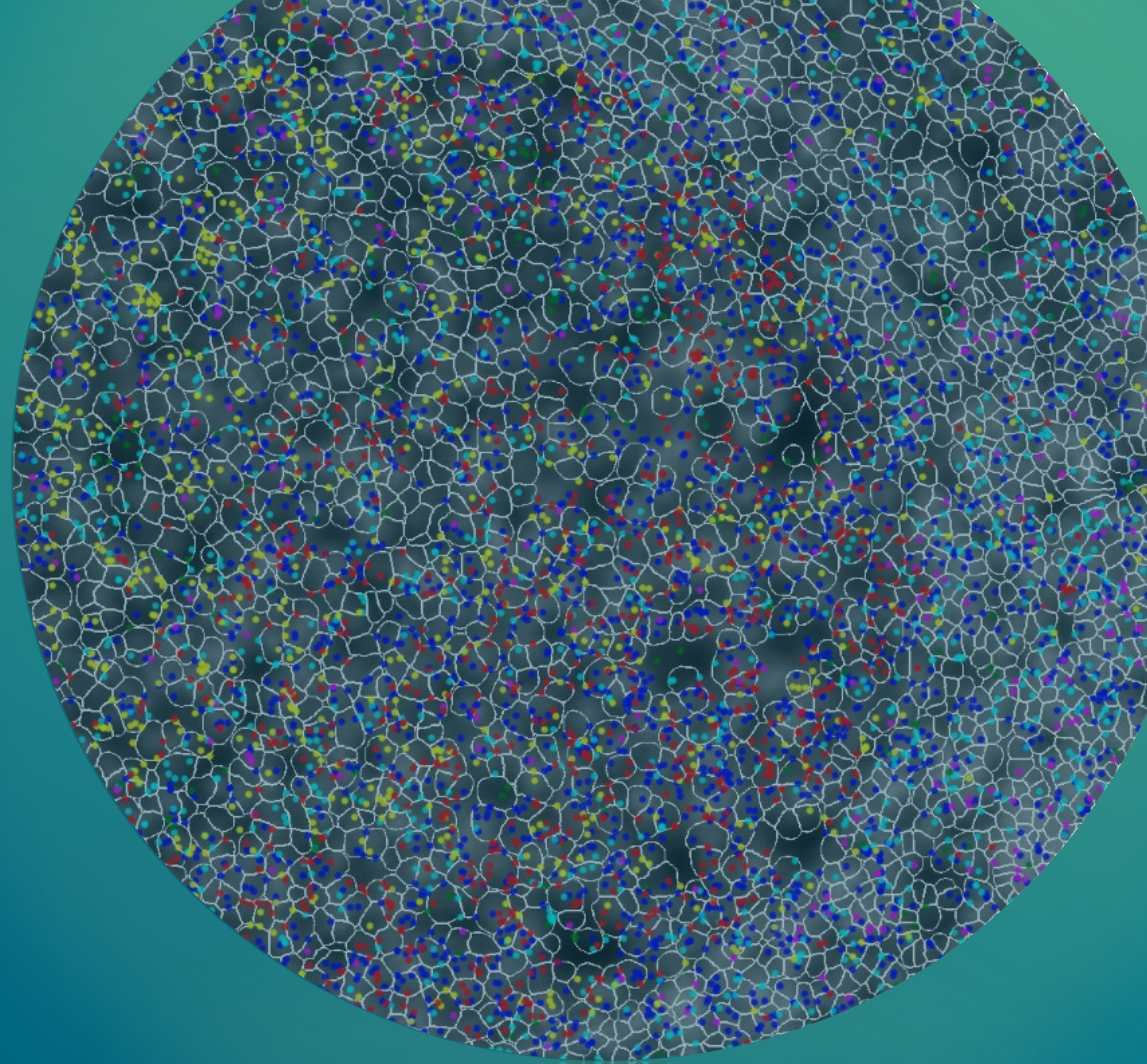
Single Cells. Giant Leaps.

CosMx™
Spatial Molecular Imager



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CosMx™ 64-Plex Human IO Protein Panel

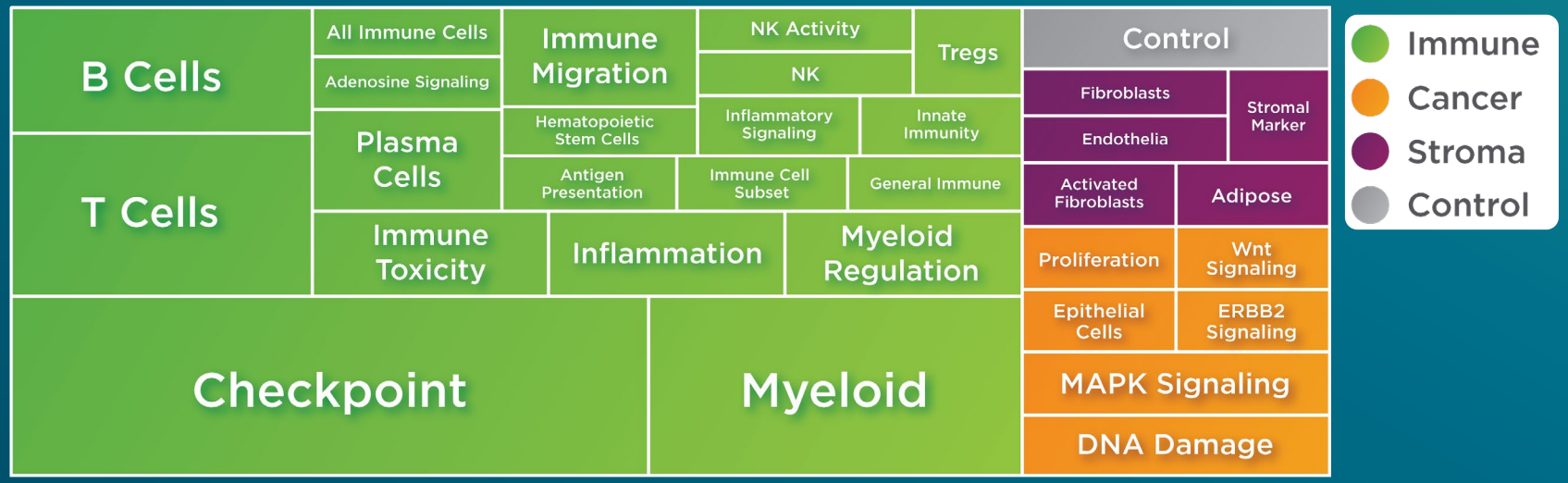
Human IO 64-plex panel

4-1BB	CD127	CD27	CD45	FABP4	ICAM1	LAG3	SMA
B7-H3	CD138	CD3	CD45RA	Fibronectin	ICOS	LAMP1	STING
Bcl-2	CD14	CD31	CD56	FOXP3	IDO1	NF-kB p65	TCF7
Beta-catenin	CD15	CD34	CD68	GITR	IgD	p53	Tim-3
CCR7	CD16	CD38	CD8	GZMA	IL-18	pan-RAS	Vimentin
CD11b	CD163	CD39	CTLA4	GZMB	IL-1b	PD-1	VISTA
CD11c	CD19	CD4	EGFR	Her2	iNOS	PD-L1	Rb IgG
CD123	CD20	CD40	EpCAM	HLA-DR	Ki-67	PD-L2	Ms IgG1

Morphology

PanCK | Segmentation Cocktail | A la carte selection | CD45

Functional Categorization



Panel offerings and targets subject to change prior to commercial launch.

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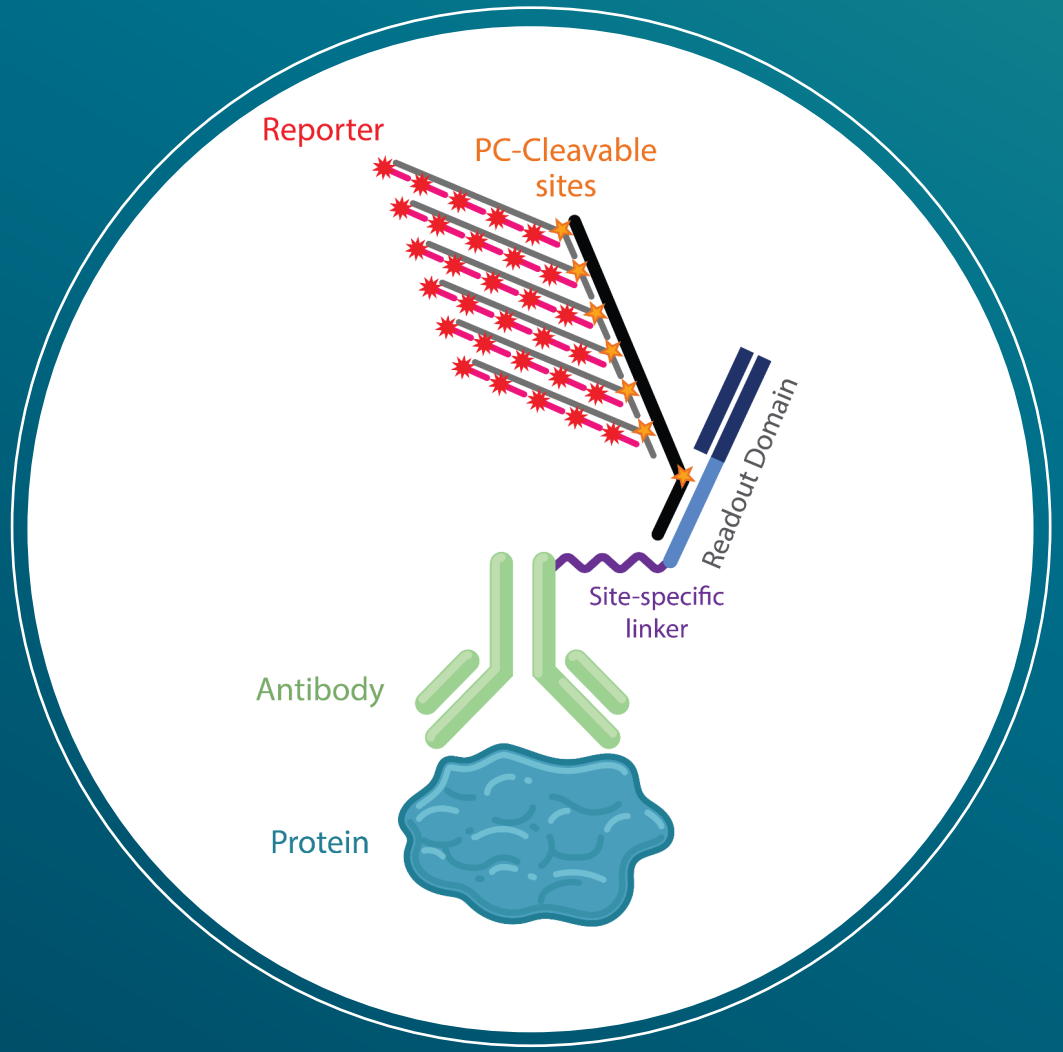
Unique antibody oligo-tag design with flexible workflows



HIGH PLEX
Visualize 64 protein targets plus 4 morphology markers of interest

CUSTOMIZABLE
Add up to 8 additional custom protein targets (available Q2 2023)

HIGH THROUGHPUT
Process up to 20 slides per week without sacrificing plex

SEMI-AUTOMATION
Optional workflow with < 90 minutes hands on time

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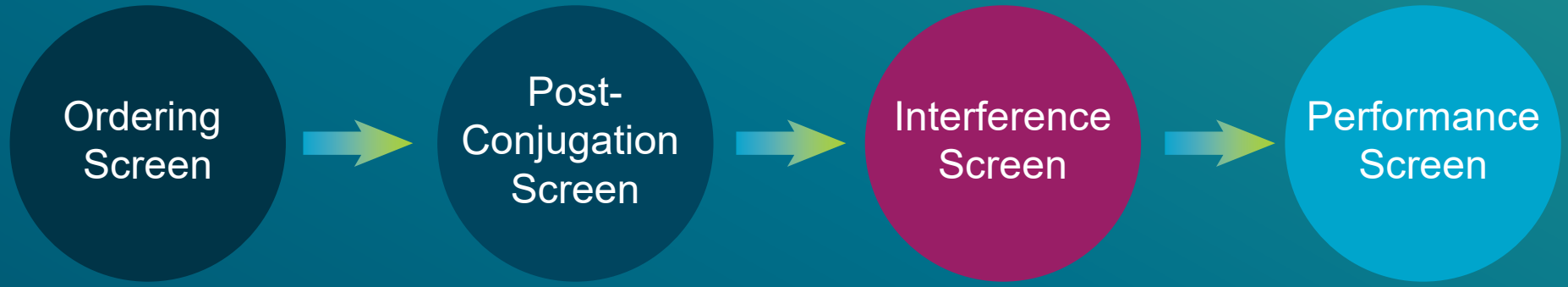
CosMx™ Antibody Validation Process



Pre-conjugation IHC validation

Post-conjugation IHC validation by a pathologist

CosMx validation of TMA with 64-plex panel by a pathologist

Antibody specificity and sensitivity validation against controls

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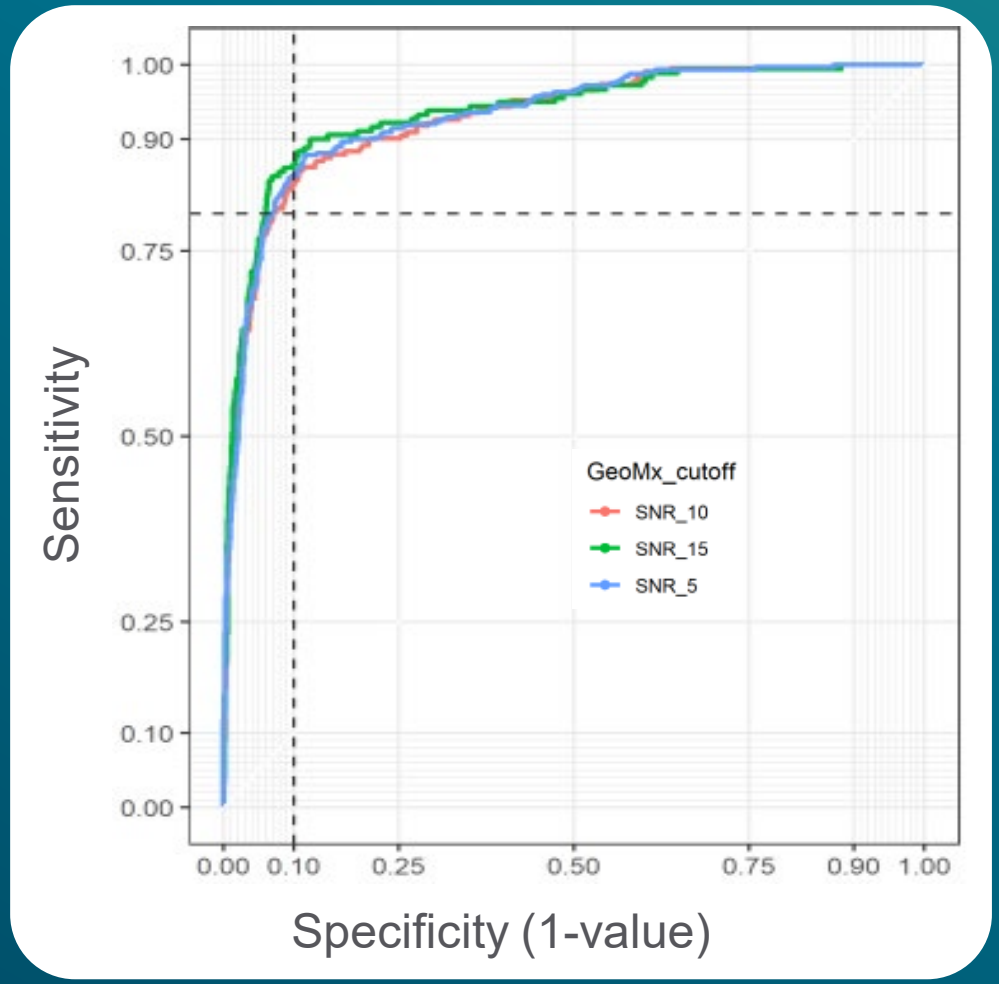
CosMx™ Antibody Validation ensures high sensitivity and specificity



GeoMx Protein data comparison

> 90% Antibody Specificity

> 85% Antibody Sensitivity

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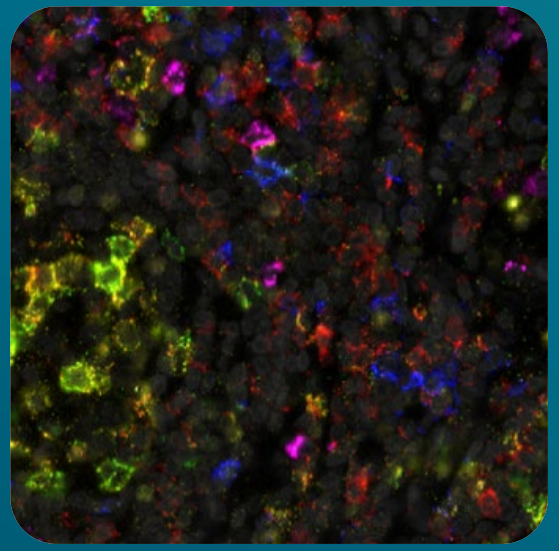
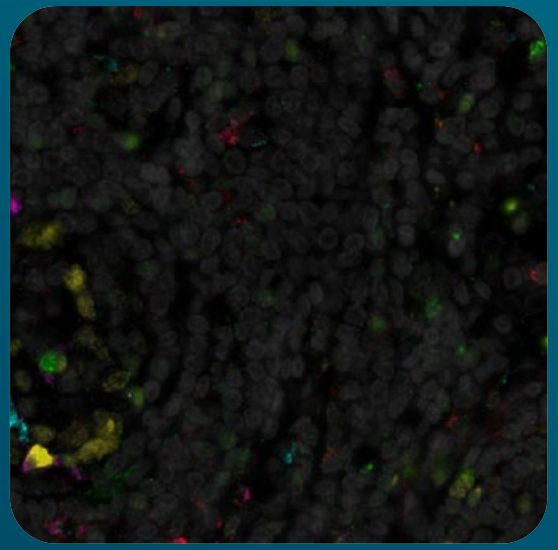
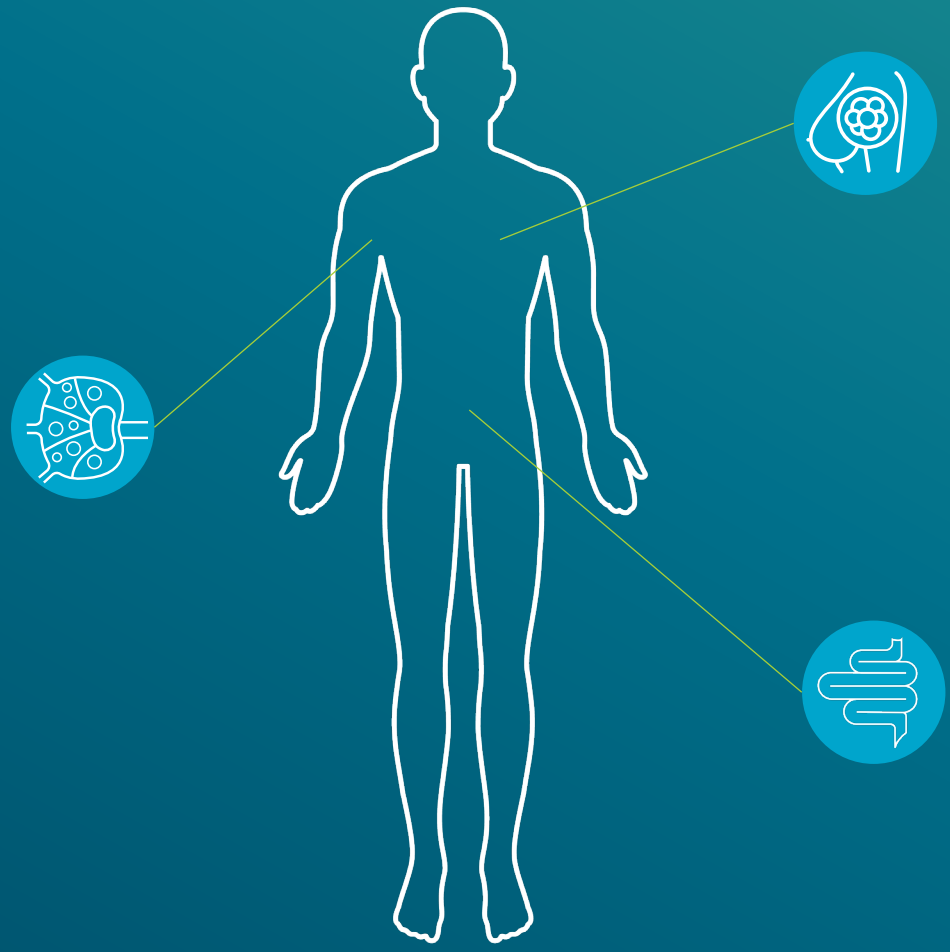
Validated and ready to use across multiple tissue types

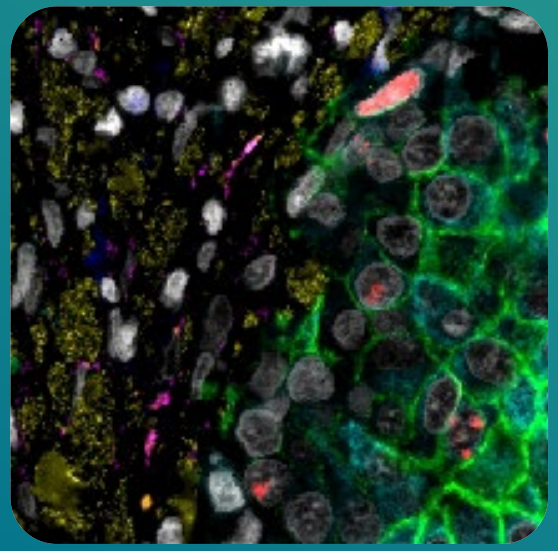
VIM
FN1
SMA
CD8
CD4
PanCK
CD34
KI67
DAPI



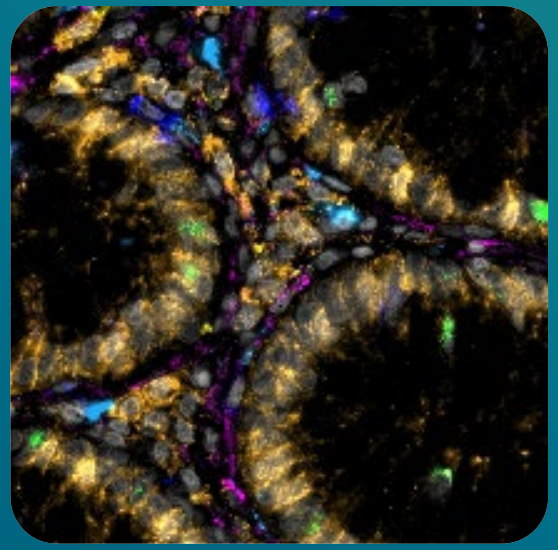
CD11b
CD11c
KI67
IL-18
CD68
DAPI







VIM
FN1
KI67
CD8
SMA
PanCK
CD34
HER2
DAPI



Beta-catenin
CD14
FN1
SMA
CD8
CD4
CD34
KI67
DAPI

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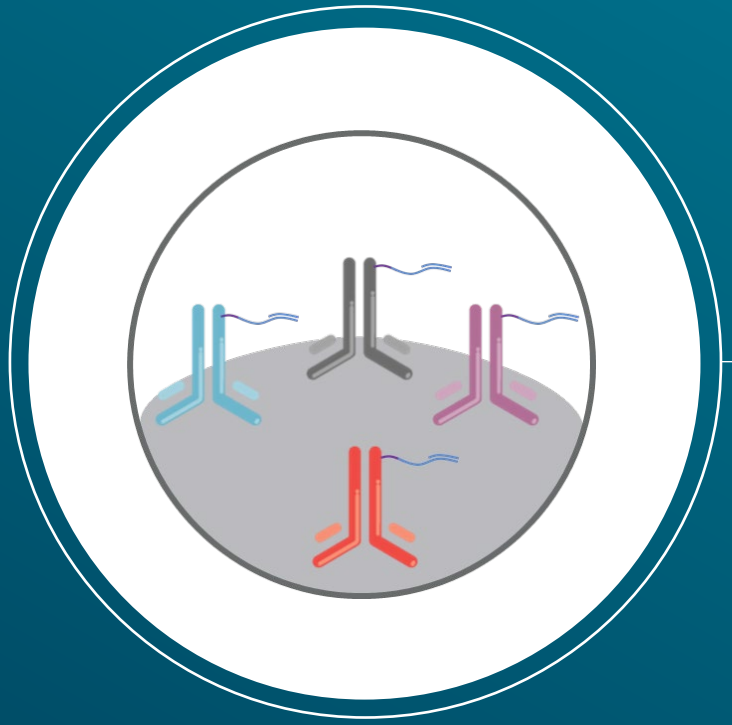
CosMx™ Protein Uses Single Molecule Chemistry with Cyclic Imaging

ANTIBODY STAIN



CYCLIC READOUT

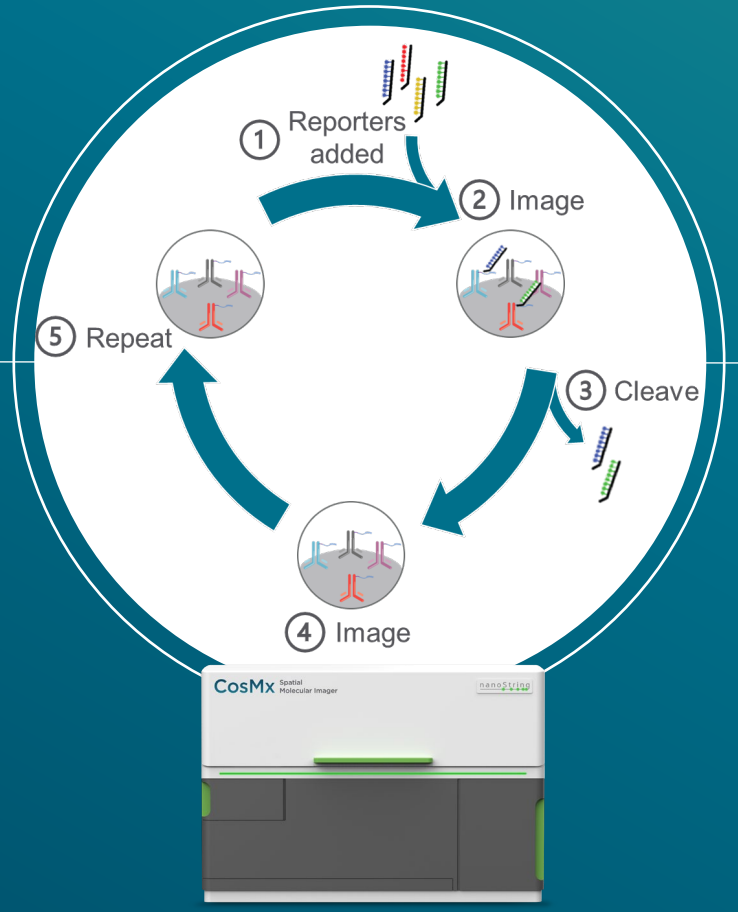
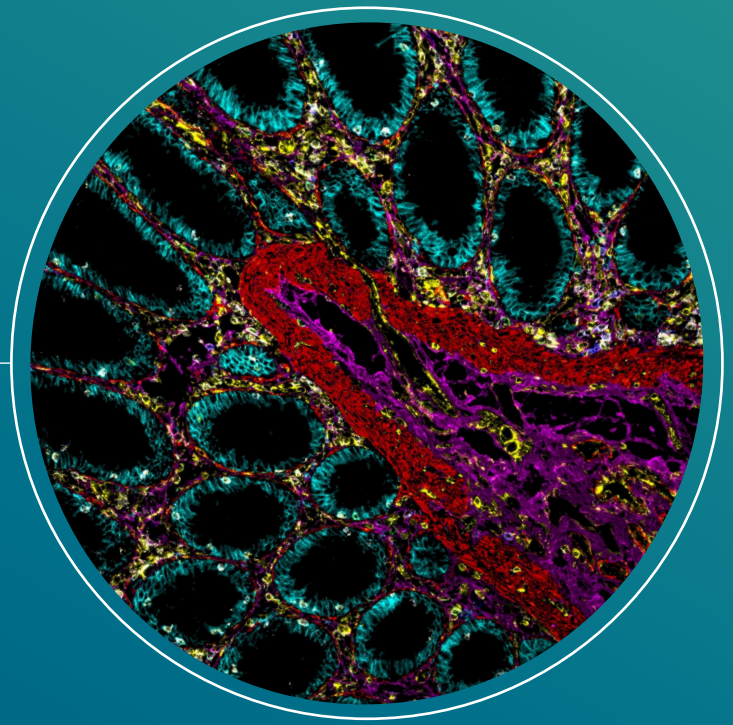


IMAGE ANALYSIS



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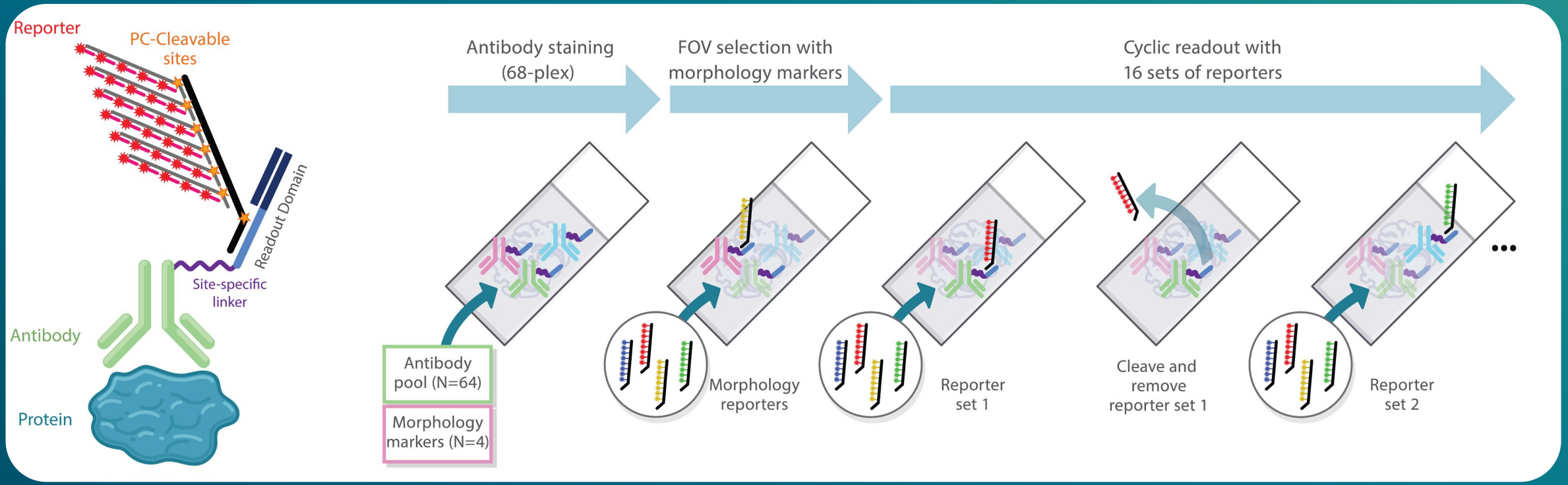
CosMx™ Protein Uses Single Molecule Chemistry with Cyclic Imaging



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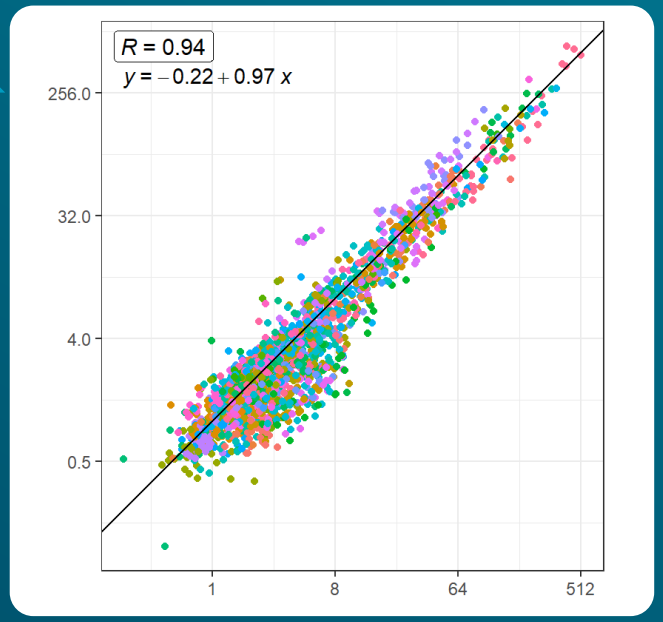
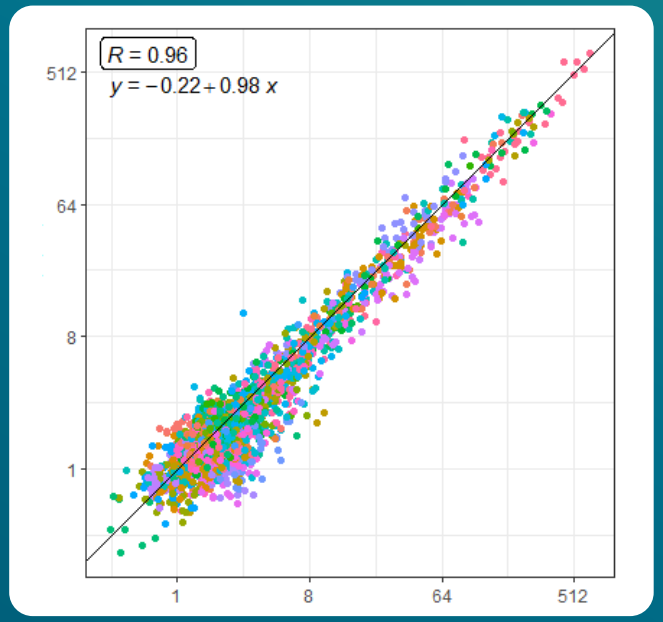
CosMx™ Protein demonstrates high reproducibility across sample preparation methods

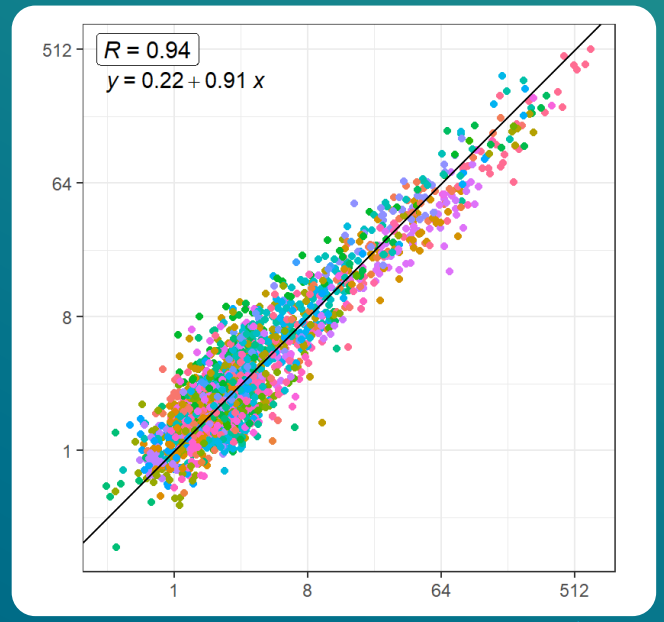
Automation / Automation



Manual / Manual



Automation / Manual



Slide 2

Slide 1

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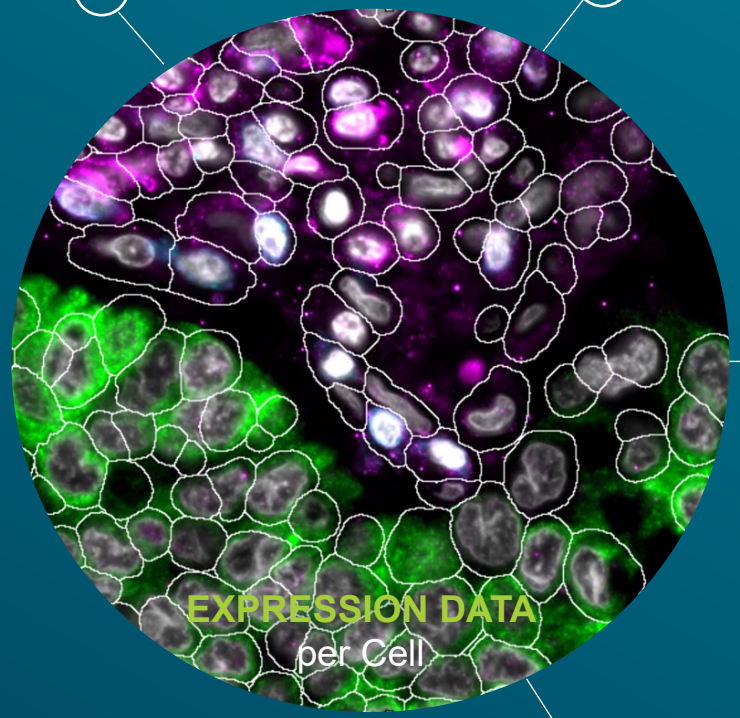
Simplified analysis outputs provide per cell and per target data

Cell-type clusters

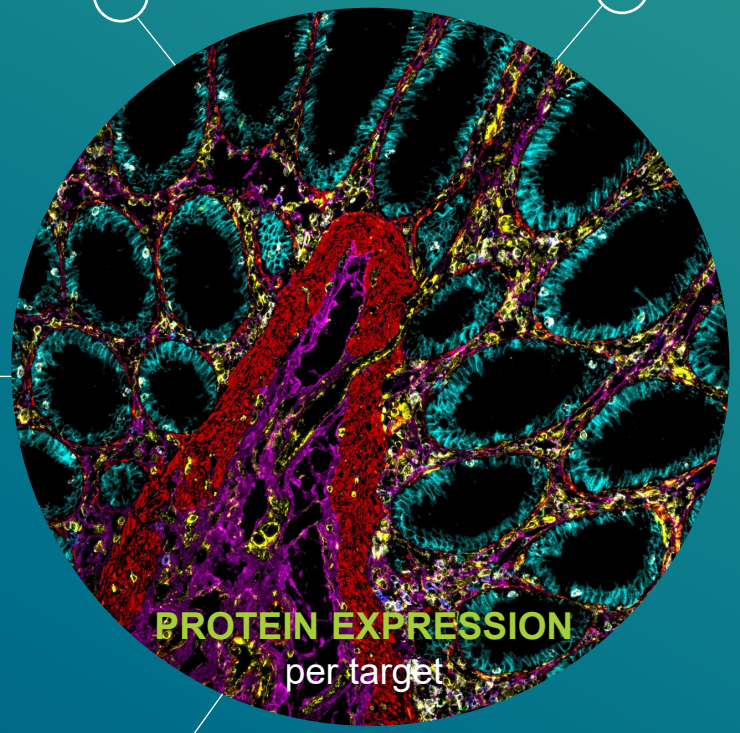
Cell-type proteins



CSV file per FOV

Pathway mapping

Cell-cell interaction



OME-TIFF per target

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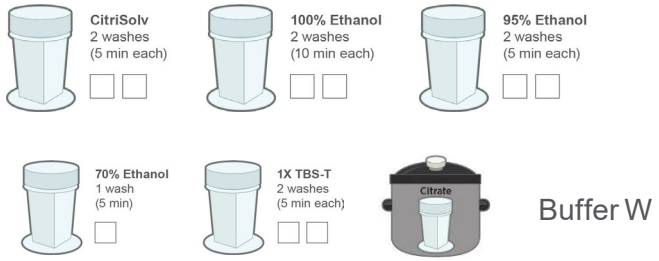
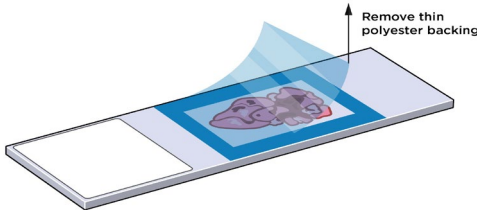
CosMx™ Protein Assay slide prep overview

Slide Prep (Automatable on Leica Bond):

- Baking
- De-Wax
- Rehydration
- Washing
- Ag retrieval
- Blocking



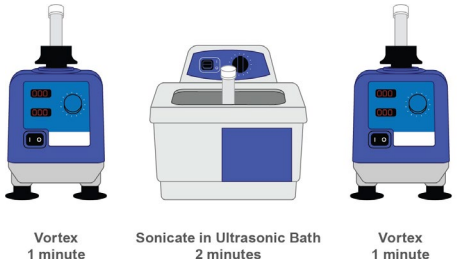
Staining



O.N. Staining + Wash

4°C

Fiducial incubation + Wash



0.00025% Fid

Post-fixation + Wash

4% PFA, 30 min

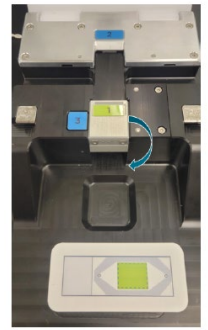
DAPI + Wash

2 ug/mL, 15 min

NHS-acetate

100mM, 15 min
Time-sensitive

Flow Cell Assembly



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