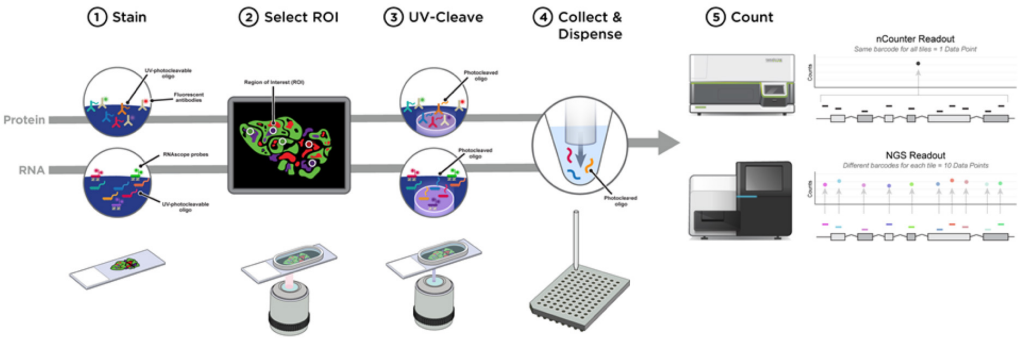
GeoMx Digital Spatial Profile Services provided by NeoGenomics

NanoString's GeoMx™ Digital Spatial Profiler (DSP) combines standard immunofluorescence techniques with digital optical barcoding technology to perform highly multiplexed, spatially resolved tissue profiling. DSP chemistry enables spatially resolved high-plex profiling of RNA and protein targets on just two serial sample sections enabling a deep characterization of the tissue.

How does it work?

An FFPE or fresh frozen tissue section is stained with a cocktail of standard morphology markers (i.e. fluorescent antibodies) combined with either oligo-tagged antibodies (protein) or oligo-tagged ISH probes (RNA) that contain a photocleavable linker. Regions of interests (ROIs) are selected and areas of Illumination (AOIs) are identified by the ROI selection or by morphology markers, where oligos from selected regions are released upon exposure to UV light. The photocleaved oligos are then collected via a microcapillary tube and stored in microplate wells. Finally, the photocleaved oligos from the spatially-resolved ROIs in the microplate are analyzed using standard NanoString nCounter® instruments.



Immuno-oncology protein panels offered by NeoGenomics

Immune Cell Typing	
CD45RO	FAP-alpha
FOXP3	CD14
CD34	CD163
CD66b	

Immune Activation	
CD127	PD-L2
CD25	CD40
CD80	CD44
ICOS	CD27

IO Drug Target Module	
4-1BB	ARG1
LAG3	B7-H3
OX40L	IDO1
Tim-3	STING
VISTA	GITR

Pan-Tumor Module	
MART1	Her2
NY-ESO-1	PTEN
S100B	ER-alpha
Bcl-2	PR
EpCAM	

Immune Cell Typing Module

Includes an expanded set of cell type markers to more deeply profile immune cell types covered in the Immune Cell Profiling Core and measure additional immune cell types, including T cell subsets

Immune Activation Status Module

Includes additional checkpoint molecules that modulate T cell activation

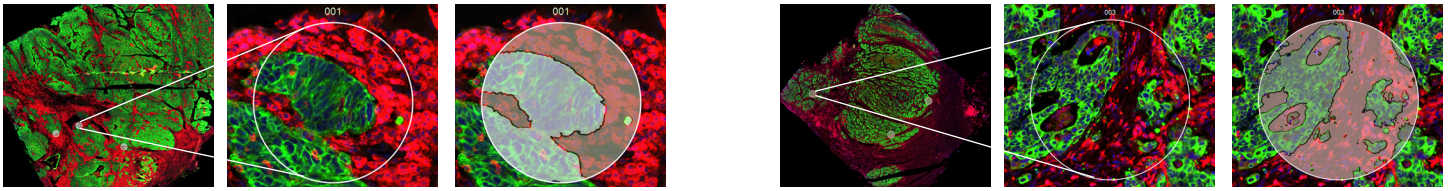
IO Drug Target Module

Includes drug targets in development within the immuno-oncology space, including checkpoint molecules and metabolic mediators of immune function

Pan-Tumor Module

Includes an expanded set of markers for detecting specific tumor types, including ER+/HER2+ breast tumors, hematopoietic malignancies, and melanoma

GeoMx DSP images generated by NeoGenomics



For other services provided by NeoGenomics Pharma services that are complementary to the GeoMx DSP assay, please see *https://neogenomics.com/pharma-services/lab-services*

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