An introductory Imaging Mass Cytometry service package by Therapeutic Insights Services Experts



High-Dimensional Spatial Profiling Exploratory Study

Therapeutic Insights Services offers a comprehensive menu of services including sample-to-answer Imaging Mass Cytometry™ (IMC™) solutions. For a limited time, the Therapeutic Insights Services team will interrogate the tissue microenvironment of your samples with a High-Dimensional Spatial Profiling Exploratory Study. With this IMC service package, you can explore the spatial distribution of cell types within the context of your tissue to gain insights into phenotypes, immune responses, or disease mechanisms.

Get initial IMC data for a grant or proposal

Let our expert team begin to generate high-multiplex imaging data from your tissue samples to demonstrate how IMC can help advance your research or to provide data for a publication or proposal. The High-Dimensional Spatial Profiling Exploratory Study Package includes staining of two human FFPE tissue slides with a 20-marker panel that includes 17 antibodies of best-in-class Maxpar® reagents and the 3 membrane markers in the IMC Cell Segmentation Kit* They will include:

- A core set of markers (Table 1) to stain a broad array of both immune and nonimmune cell types
- A DNA intercalator and the IMC Cell Segmentation Kit for robust cell segmentation and single-cell analysis
- Your choice of 5 additional drop-in antibodies from the Maxpar catalog to enable focused exploration of phenotypes of interest

A broad range of cell types easily identified

The core panel included in this package has been selected to stain a broad range of immune and nonimmune cell types across diverse tissues and disease states. Example data from squamous cell carcinoma of the larynx is shown in Figure 1.

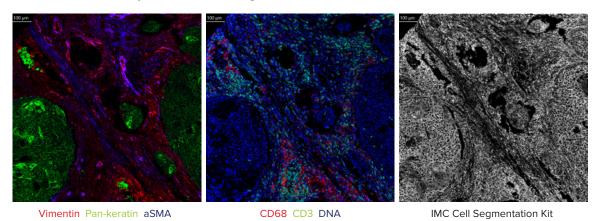


Figure 1. A 1 mm x 1 mm region of interest from a squamous cell carcinoma of the larynx stained with antibodies from the core panel.

A) Lineage/structural markers vimentin (red), pan-keratin (green) and alpha-smooth muscle actin (blue). B) Immune cell markers CD68 (red) and CD3 (green) with DNA intercalator counterstain (blue). C) IMC Cell Segmentation Kit with plasma membrane markers rendered in grayscale to support single-cell analysis.

*The IMC Cell Segmentation Kit is available as an Innovative Solution and is not part of the Maxpar® reagent catalog. Learn more about the IMC Cell Segmentation kit at fluidigm.com/innovate.

Identify a wide range of cell phenotypes with this core panel

Category	Cell Type	Marker	Category	Cell Type	Marker
Immune	All immune cells	CD45	Nonimmune	Smooth muscle cells	Alpha-smooth muscle actin
	Monocytes	CD14		Fibroblasts	Vimentin
	Macrophages	CD68		Epithelial cells	Pan-keratin
	Granulocytes	CD15		Endothelial cells	CD31
	Dendritic cells	CD11c	Universal markers		Pan-actin
	T cells	CD3			IMC Cell Segmentation Kit
	B cells	CD20			Cell-ID™ Intercalator-Ir

Table 1. The 15-marker core panel includes 7 immune cell markers, 4 nonimmune cell markers, a universal pan-actin marker and a set of 3 membrane markers in the IMC Cell Segmentation Kit. Add 5 more antibodies of your choice for a 20-marker panel unique to your project.

The acquisition of eight regions of interest (1 mm x 1 mm each) will result in raw data files and RGB images of each region of interest. Standard single-cell phenotypic analysis will also be completed, with an option for more advanced single-cell analysis (spatial analysis) available as an add-on service.

Deeper insights enabled with customization to extend your panel

You can get a more focused exploration of phenotypes of interest by taking advantage of adding your unique selection of 5 Maxpar catalog antibodies to your panel. For example, antibodies to CD4, CD8, FoxP3, CD45RO and PD-1 could be added to the panel to profile T helper cells, cytotoxic T cells, regulatory T cells, memory T cells and exhausted T cells, respectively. Similarly, EGFR pathway activation could be investigated by adding antibodies targeting EGFR, phospho-ERK1/2, phospho-Stat3, phospho-CREB and c-Myc to the core panel.

Affordable pricing and fast turnaround make a great starter package

Request a quote in your local currency today. Ask your local sales representative or email **tis@fluidigm.com**. Get your project started for just 8,000 USD, and we're committed to get you results back in less than 8 weeks during this limited-time offer.

Get multiplexing today!

Learn how at fluidigm.com/tis.

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