

Invicro offers both preconfigured and customizable Akoya Biosciences Phenocycler™ assays which provide a comprehensive, highly multiplexed solution for spatially resolved biomarker analysis of tissue samples:

## Immune Profiling Modules for Human FFPE

*Immuno-Oncology, Autoimmune, Inflammation*

| Core Panel (15-plex) |                     | Advanced Add-On (19-plex) |                                       |
|----------------------|---------------------|---------------------------|---------------------------------------|
| Marker               | Key Phenotype       | Marker                    | Key Phenotype                         |
| CD4                  | Helper T cells      | CD163                     | M2 Macrophages                        |
| CD68                 | Macrophages         | CD19                      | B cells, FDCs                         |
| CD20                 | B cells             | FoxP3                     | Regulatory T cells                    |
| CD11c                | Dendritic cells     | Granzyme B                | Activated T cells/NK cells            |
| CD8                  | Cytotoxic T cells   | CD11b                     | Myeloid cells                         |
| HLA-DR               | APCs (MHC II)       | CD21                      | Dendritic cells, mature B cells, FDCs |
| CD3e                 | T cells             | E-cadherin                | Epithelial cells                      |
| CD44                 | Activated T cells   | SMA                       | Vascular, fibroblasts, smooth muscle  |
| CD45                 | Immune cells        | Vimentin                  | Cyto-structures                       |
| HLA-A                | MHC I               | Collagen IV               | Extracellular matrix                  |
| CD14                 | Monocytes           | CD31                      | Vascular structures                   |
| Ki67                 | Proliferating cells | CD34                      | Vascular structures                   |
| Pan-CK               | Tumor cells         | Podoplanin                | Lymphatics                            |
| CD57                 | NK cells            | PD-1                      | Checkpoint receptor                   |
| CD45RO               | Memory T cells      | LAG-3                     | Checkpoint receptor                   |
|                      |                     | TIM3                      | Checkpoint receptor                   |
|                      |                     | ICOS                      | Checkpoint receptor                   |
|                      |                     | PD-L1                     | Checkpoint ligand                     |
|                      |                     | IDO1                      | Immune inhibitor                      |

## Neuroscience Modules for Human FFPE

*Neuroinflammation*

| Core Panel (15-plex) |                      | Advanced Add-On (19-plex) |                         |
|----------------------|----------------------|---------------------------|-------------------------|
| Marker               | Key Phenotype        | Marker                    | Key Phenotype           |
| NeuN                 | Post-mitotic neurons | TMEM119                   | Microglia               |
| MAP-2                | Neurons (dendrites)  | AQP4                      | Blood-brain barrier     |
| H2A.X                | Neurons              | CD68                      | Microglia, M1 microglia |
| Neurofilament        | Neurons              | CD11c                     | Microglia               |
| GFAP                 | Astrocytes           | CD163                     | M2 microglia            |
| Iba-1                | Microglia            | PCNA                      | Proliferating cells     |
| Olig-2               | Oligodendrocytes     | Galectin-3                | Microglial activation   |
| Vimentin             | Astrocytes, NSCs     | ApoE                      | Astrocytes/Microglia    |
| CD31                 | Vascular             | β-Amyloid                 | β-amyloid peptide (Aβ)  |
| Collagen IV          | Vascular             | iNOS                      | M1 microglia            |
| Claudin-5            | Vascular             | CD8                       | Cytotoxic T cells       |
| CD34                 | Vascular             | HLA-DR                    | APCs (MHC II)           |
| PSD-95               | Synaptic             | CD3e                      | T cells                 |
| Synaptophysin        | Synaptic             | CD44                      | Activated T cells       |
| SMA                  | Vascular             | CD45                      | Immune cells            |
|                      |                      | CD11b                     | Myeloid cells           |
|                      |                      | CD4                       | Helper T cells          |
|                      |                      | CD14                      | Monocytes               |
|                      |                      | HLA-A                     | MHC I                   |

## Immune Profiling Modules for Mouse Fresh Frozen

*Immuno-Oncology, TLS, Autoimmune, Inflammation*

| Core Mouse Model FF (25-plex) |   |         |  |
|-------------------------------|---|---------|--|
| Marker                        | Key Phenotype   | Marker  | Key Phenotype                                  |
| CD90                          | HSCs, T cells, fibroblasts, vascular endothelial structures | Ly6g    | Neutrophils                                    |
| CD31                          | Vascular structures   | CD38    | NK cells, monocytes, activated B cells/T cells |
| TCR                           | T cells   | CD21/35 | Mature B cells, FDCs                           |
| Ter119                        | Erythrocytes  | CD71    | Bone marrow blast cells                        |
| CD44                          | Activated T cells   | IgD     | Naïve B-cells                                  |
| CD45                          | Immune cells  | CD4     | Helper T cells                                 |
| CD19                          | B-cells, FDCs   | CD11c   | Dendritic cells                                |
| CD169                         | Macrophages   | CD24    | Dendritic cells                                |
| CD45R/B220                    | B Cells   | CD8a    | Cytotoxic T cells                              |
| MHCII                         | APCs  | CD49f   | Endothelial cells                              |
| CD3                           | T cells   | CD11b   | Myeloid cells                                  |
| IgM                           | Immature B cells  | Ki67    | Proliferating cells                            |
| CD5                           | T cells   |         |  |

## Custom Panels

In addition to our off-the-shelf panels, Invicro offers services for the development of custom panels with the ability to multiplex 100+ biomarkers.

## PhenoCycler™-Fusion System

