

# PACT Biomarker Assays

**Tier 1 = broadly recommended for most trials**

Tier 2 = other assays, usage depends on trial

	<b>Tier 1</b>	<b>Tier 2</b>
<b>Tissue Imaging</b>	<b>Multiplex immunohistochemistry and immunofluorescence</b>	Conventional immunohistochemistry
		Multiplexed Ion-Beam Imaging (MIBI)

	<b>Tier 1</b>	<b>Tier 2</b>
<b>Cell Profiling</b>	<b>Mass Cytometry (CyTOF)</b>	High-dimensional flow cytometry
		ELISpot

	<b>Tier 1</b>	<b>Tier 2</b>
<b>Sequencing</b>	<b>RNA-Seq</b>	TCR/BCR clonality
	<b>NanoString</b>	Single-cell TCRseq
	<b>Whole Exome Sequencing</b>	HLA-Seq; Epitope prediction
		ISH DNA/RNA
		Neoantigen Prediction
		Cell-free DNA (circulating tumor DNA)
		Epigenomics (ATAC-Seq)
		HTG-EdgeSeq (gene expression)
		Microbiome (16S Deep Sequencing)
	Single-cell transcriptome	

	<b>Tier 1</b>	<b>Tier 2</b>
<b>Cytokines/Serum Analytes</b>	<b>O-link serum cytokine analysis</b>	Luminex
		Seromics-ELISA/Grand serology
		MesoScale Discovery