



## DIRECTORY OF SERVICES

## Navigate BioPharma Directory of Services

### Multiplex Fluorescence Immunohistochemistry (F-IHC, single or combination of 2-7 colors)

Assay Name	Disease Indications	Specimen Type	Assay Offered Through
CCR4/CK	Gastric (Stomach) Cancer, Non-Small Cell Lung Cancer (NSCLC)	FFPE	Navigate BioPharma
PD-L1/CK	Non-Small Cell Lung Cancer (NSCLC), Gastric (Stomach) Cancer, Skin Cancer - Melanoma	FFPE	Navigate BioPharma
PD-1/CK	Gastric (Stomach) Cancer, Non-Small Cell Lung Cancer (NSCLC), Skin Cancer - Melanoma	FFPE	Navigate BioPharma
PD1/PD-L1/CK	Neuroendocrine Tumor (NET), Breast Cancer, Renal Cell Carcinoma (RCC)	FFPE	Navigate BioPharma
CD19	Diffuse Large B-Cell Lymphoma (DLBCL)	FFPE	Navigate BioPharma
IDO/S100	Skin Cancer - Melanoma	FFPE	Navigate BioPharma
CCR4/FoxP3/CK	Esophageal Carcinoma , Gastric (Stomach) Cancer, Hepatocellular Carcinoma (HCC), Non-Small Cell Lung Cancer (NSCLC), Small-Cell Lung Cancer (SCLC), Pancreatic Cancer	FFPE	Navigate BioPharma
FoxP3/CD25/CK	Gastric (Stomach) Cancer, Non-Small Cell Lung Cancer (NSCLC)	FFPE	Navigate BioPharma
CD16/CD56/CK	Gastric (Stomach) Cancer, Non-Small Cell Lung Cancer (NSCLC)	FFPE	Navigate BioPharma
PD1/PDL1/CD3	Diffuse Large B-Cell Lymphoma (DLBCL)	FFPE	Navigate BioPharma
CD4/CD8/Ki67/CK	Gastric (Stomach) Cancer, Non-Small Cell Lung Cancer (NSCLC)	FFPE	Navigate BioPharma
CD4/CD8/Ki67/S100	Skin Cancer - Melanoma	FFPE	Navigate BioPharma
CD4/CD8/CK	Gastric (Stomach) Cancer, Non-Small Cell Lung Cancer (NSCLC)	FFPE	Navigate BioPharma
CD4/CD8/S100	Skin Cancer - Melanoma	FFPE	Navigate BioPharma
LAG3/TIM3/CD3	Diffuse Large B-Cell Lymphoma (DLBCL), Renal Cell Carcinoma (RCC), Neuroendocrine Tumor (NET)	FFPE	Navigate BioPharma
PD-1/PD-L1/S100	Melanoma	FFPE	Navigate BioPharma
HLA-DR/IDO1/CK	Non-Small Cell Lung Cancer (NSCLC)	FFPE	Navigate BioPharma
HLA-DR/IDO1/S100	Melanoma	FFPE	Navigate BioPharma
CD4/CD8/CD25/FOXP3/Ki67	Non-Small Cell Lung Cancer (NSCLC)	FFPE	Navigate BioPharma
CD4/CD8/GZMB/CK	In Development	FFPE	Navigate BioPharma
CD4/CD8/GZMB/S100	In Development	FFPE	Navigate BioPharma
CD11b/HLA-DR/IDO1	In Development	FFPE	Navigate BioPharma
CD11b/HLA-DR/ARG1	In Development	FFPE	Navigate BioPharma
CD68/CD163/CK	In Development	FFPE	Navigate BioPharma
CD68/CD163/S100	Skin Cancer - Melanoma	FFPE	Navigate BioPharma

## Colorimetric IHC (C-IHC)

Assay Name	Disease Indications	Specimen Type	Assay Offered Through
ALK (FDA approved)	Non-Small Cell Lung Cancer (NSCLC)	FFPE	Navigate BioPharma
cMET	Non-Small Cell Lung Cancer (NSCLC), Breast Cancer, Hepatocellular Carcinoma (HCC), Gastric (Stomach) Cancer	FFPE	Navigate BioPharma
Estrogen Receptor (ER)	Breast Cancer	FFPE	3rd Party Laboratory
Progesterone Receptor (ER)	Breast Cancer	FFPE	3rd Party Laboratory
HER2	Breast Cancer	FFPE	3rd Party Laboratory
P-Cadherin	Breast Cancer (including triple negative), Head and Neck Cancer, Non-Small Cell Lung Cancer (NSCLC), Esophageal Carcinoma, Squamous Cell Carcinoma	FFPE	Navigate BioPharma
P16	Breast Cancer, Glioblastoma (GBM), Head and Neck Cancer, Skin Cancer - Melanoma	FFPE	Navigate BioPharma
phospho-4EBP1 (Thr 37/46)	Breast Cancer, Non-Small Cell Lung Cancer (NSCLC), Endometrial Cancer, Gastric (Stomach) Cancer, Skin Cancer - Melanoma, Liver Cancer, Colorectal Cancer (CRC)	FFPE	Navigate BioPharma
phospho-AKT (Ser 473)	Breast Cancer, Non-Small Cell Lung Cancer (NSCLC), Endometrial Cancer, Gastric (Stomach) Cancer, Skin Cancer - Melanoma, Liver Cancer, Colorectal Cancer (CRC)	FFPE	Navigate BioPharma
phospho-EGFR (Tyr 1068)	Breast Cancer, Colorectal Cancer (CRC), Gastric (Stomach) Cancer, Glioblastoma (GBM), Liver Cancer, Non-Small Cell Lung Cancer (NSCLC), Skin Cancer - Melanoma	FFPE	Navigate BioPharma
phospho-MEK 1/2 (Ser 221)	Breast Cancer, Non-Small Cell Lung Cancer (NSCLC), Endometrial Cancer, Gastric (Stomach) Cancer, Skin Cancer - Melanoma, Liver Cancer, Colorectal Cancer (CRC)	FFPE	Navigate BioPharma
phospho-MET (Tyr 1234/1235)	Breast Cancer, Non-Small Cell Lung Cancer (NSCLC), Endometrial Cancer, Gastric (Stomach) Cancer, Skin Cancer - Melanoma, Liver Cancer, Colorectal Cancer (CRC)	FFPE	Navigate BioPharma
phospho-p44/42 MAPK (Thr 202/Tyr 204)	Breast Cancer, Non-Small Cell Lung Cancer (NSCLC), Endometrial Cancer, Gastric (Stomach) Cancer, Skin Cancer - Melanoma, Liver Cancer, Colorectal Cancer (CRC)	FFPE	Navigate BioPharma

**Colorimetric IHC (C-IHC) *continued***

phospho-Rb (Ser 780)	Breast Cancer, Endometrial Cancer, Non-Small Cell Lung Cancer (NSCLC), Gastric (Stomach) Cancer, Skin Cancer - Melanoma, Colorectal Cancer (CRC)	FFPE	Navigate BioPharma
phospho-S6 (235/236)	Breast Cancer, Non-Small Cell Lung Cancer (NSCLC), Endometrial Cancer, Gastric (Stomach) Cancer, Skin Cancer - Melanoma, Liver Cancer, Colorectal Cancer (CRC)	FFPE	Navigate BioPharma
phospho-S6 (240/244)	Breast Cancer, Non-Small Cell Lung Cancer (NSCLC), Endometrial Cancer, Gastric (Stomach) Cancer, Skin Cancer - Melanoma, Liver Cancer, Colorectal Cancer (CRC)	FFPE	Navigate BioPharma
PD-L1 (22C3)	Non-Small Cell Lung Cancer (NSCLC)	FFPE	Navigate BioPharma
BAP1	Renal Cell Carcinoma (RCC), Pancreatic Neuroendocrine Tumors (PNETs), Gastric (Stomach) Cancer	FFPE	Navigate BioPharma
TSC1	Renal Cell Carcinoma (RCC), Gastric (Stomach) Cancer, Pancreatic Neuroendocrine Tumors (PNETs)	FFPE	Navigate BioPharma
TSC2	Renal Cell Carcinoma (RCC), Gastric (Stomach) Cancer, Pancreatic Neuroendocrine Tumors (PNETs)	FFPE	Navigate BioPharma
Ki-67	Breast Cancer	FFPE	Navigate BioPharma
tRb	Breast Cancer, Colorectal Cancer (CRC), Endometrial Cancer, Gastric (Stomach) Cancer, Hepatocellular Carcinoma (HCC), Non-Small Cell Lung Cancer (NSCLC), Skin Cancer - Melanoma	FFPE	Navigate BioPharma
PTEN	Breast Cancer	FFPE	Navigate BioPharma

## Flow Cytometry (8-16 colors)

Assay Name	Disease Indications	Specimen Type	Assay Offered Through
B-ALL MRD Profile	Acute Lymphoblastic Leukemia (ALL)	BM	Navigate BioPharma
CLL MRD Profile	Chronic Lymphocytic Leukemia (CLL)	PB, BM	Navigate BioPharma
MCL MRD Profile	Mantle Cell Lymphoma (MCL)	PB, BM	Navigate BioPharma
MM MRD Profile	Multiple Myeloma (MM)	BM	3rd Party Laboratory
T-Cell Differentiation	Multiple Disease Indications	PB, BM, PBMC, BMMC	Navigate BioPharma
Broad Immunophenotyping	Multiple Disease Indications	PBMC, BMMC	Navigate BioPharma
T-cell Maturation	Multiple Disease Indications	PB, BM, PBMC, BMMC	Navigate BioPharma
Myeloid Derived Suppressor Cells (MDSC) Panel	Multiple Disease Indications	PB, BM, PBMC, BMMC	Navigate BioPharma
T/B/NK enumeration	Multiple Disease Indications	PB, BM	Navigate BioPharma
T-cell Proliferation Panel	Multiple Disease Indications	PBMC, BMMC	Navigate BioPharma
NK cell Proliferation Panel	Multiple Disease Indications	PBMC, BMMC	Navigate BioPharma

## Next Generation Sequencing (NGS)

Assay Name	Assay Technology	Disease Indications	Specimen Type	Assay Offered Through
Focus Assay (52 genes)	Amplicon	Solid Tumor	FFPE	Navigate BioPharma
Comprehensive Assay (161 genes)	Amplicon	Solid Tumor	FFPE	Navigate BioPharma
Lung cfDNA Assay (11 genes)	Amplicon	Lung Cancer	Plasma/ Liquid Biopsy	Navigate BioPharma
Breast cfDNA Assay (10 genes)	Amplicon	Breast Cancer	Plasma/ Liquid Biopsy	3rd Party Laboratory
Colon cfDNA Assay (14 genes)	Amplicon	Colorectal Cancer (CRC)	Plasma/ Liquid Biopsy	Navigate BioPharma
Ion AmpliSeq Transcriptome Human Gene Expression Kit (>20000 genes)	Amplicon	Solid Tumor	FFPE	Navigate BioPharma
RNA Pan-Cancer Panel (1385 genes)	Hybrid-capture	Hematologic Malignancies and Solid Tumor	PB, BM, FFPE	Navigate BioPharma
Immune Response Research Assay	Amplicon	Solid Tumor	FFPE	Navigate BioPharma
Myeloid NGS Assay	Hybrid-capture	Acute Myeloid Leukemia (AML), Chronic Myelogenous Leukemia (CML), Chronic Myelomonocytic Leukemia (CMML), Myelodysplastic Syndrome (MDS), Myeloproliferative Neoplasms (MPNs), Juvenile Myelomonocytic Leukemia (JMML)	PB, BM, FFPE	Navigate BioPharma
ALK NGS	Amplicon	Neuroblastoma, Non-Small Cell Lung Cancer (NSCLC)	FFPE	Navigate BioPharma
Comprehensive NGS Panel (236 genes)	Hybrid-capture	Various Solid and Hematologic Malignancies	PB, BM, FFPE	Navigate BioPharma

## Sanger Sequencing

Assay Name	Disease Indications	Specimen Type	Assay Offered Through
IgVH Mutation Analysis	Chronic Lymphocytic Leukemia (CLL)	PB, BM	3rd Party Laboratory

## NanoString

Assay Name	Disease Indications	Specimen Type	Assay Offered Through
nCounter PanCancer Immune Profiling Panel (IPP)	Hematologic Malignancies and Solid Tumor	PB, BM, FFPE	Navigate BioPharma
nCounter Vantage 3D RNA:Protein Immune Cell Profiling Panel	Hematologic Malignancies	PB	Navigate BioPharma
nCounter PanCancer Progression Panel (PP)	Hematologic Malignancies and Solid Tumor	PB, BM, FFPE	Navigate BioPharma
nCounter PanCancer RNA Immune Profiling Assay	Hematologic Malignancies and Solid Tumor	PB, BM, FFPE	Navigate BioPharma
nCounter Vantage 3D RNA:Protein Immune Cell Signaling Panel	Hematologic Malignancies	PB	Navigate BioPharma

## Polymerase Chain Reaction (PCR)

Assay Name	Disease Indications	Specimen Type	Assay Offered Through
THxID BRAF Mutation Analysis (FDA)	Skin Cancer - Melanoma	FFPE	Navigate BioPharma
BCR-ABL1 Mutation	Acute Lymphoblastic Leukemia (ALL), Chronic Myelogenous Leukemia (CML)	PB, BM	3rd Party Laboratory
MSI Analysis	Colorectal Cancer (CRC)	FFPE	3rd Party Laboratory
KRAS Mutation Analysis (FDA)	Colorectal Cancer (CRC)	FFPE	3rd Party Laboratory
MLL-PTD Mutation Analysis	Acute Myeloid Leukemia (AML)	PB, BM	Navigate BioPharma
EGFR Mutation Analysis	Non-Small Cell Lung Cancer (NSCLC)	FFPE	3rd Party Laboratory
BRAF V600E Mutation Analysis	Solid Tumor (All types)	FFPE	Navigate BioPharma
UGT1A1 (TA) <sub>n</sub> Genotyping by Fragment Analysis PCR	Irinotecan Toxicity Prediction	PB, BM	Navigate BioPharma
PIK3CA cobas PCR	Breast Cancer	FFPE	Navigate BioPharma
FGFR4/KLB/FGF19 Gene Expression	Hepatocellular Carcinoma (HCC)	FFPE	Navigate BioPharma
Telomere Attrition by qPCR	Aplastic Anemia (AA), Myelodysplastic Syndrome (MDS)	PB, BM	Navigate BioPharma

## Fluorescence In Situ Hybridization (FISH)

Assay Name	Disease Indications	Specimen Type	Assay Offered Through
ALK Rearrangement (Abbott IVD)	Non-Small Cell Lung Cancer (NSCLC)	FFPE	Navigate BioPharma
MET Amplification (LDT)	Non-Small Cell Lung Cancer (NSCLC), Head and Neck Cancer, Gastric (Stomach) Cancer	FFPE	Navigate BioPharma
ALK Rearrangement (LDT)	Non-Small Cell Lung Cancer (NSCLC)	FFPE	3rd Party Laboratory
ALL Disease Profile	Acute Lymphoblastic Leukemia (ALL)	PB, BM	3rd Party Laboratory
CLL Disease Profile	Chronic Lymphocytic Leukemia (CLL)	PB, BM	3rd Party Laboratory
FISH profiles for Hematologic Malignancies	Hematologic Malignancies	PB, BM	3rd Party Laboratory
ROS1 Rearrangement	Non-Small Cell Lung Cancer (NSCLC)	FFPE	3rd Party Laboratory
RET Rearrangement	Non-Small Cell Lung Cancer (NSCLC)	FFPE	3rd Party Laboratory
MPN Eosinophilia FISH Profile	Myeloproliferative Neoplasms (MPNs)	PB, BM	3rd Party Laboratory
Multiple Myeloma FISH Profile	Multiple Myeloma (MM), Plasma Cell Dyscrasias	PB, BM	3rd Party Laboratory

## Hematopathology

Assay Name	Disease Indications	Specimen Type	Assay Offered Through
Blood Morphology Assessment	Hematologic Malignancies	PB	Navigate BioPharma
Bone Marrow Morphology Assessment	Hematologic Malignancies	BM	Navigate BioPharma
MYF Grading	Myelofibrosis (MF)	BM	Navigate BioPharma
Lymph Node Morphology Assessment	Lymphoproliferative Disorders, Lymphomas	FFPE	Navigate BioPharma