

Assay portfolio

# OncoPrint Solutions for clinical oncology research

OncoPrint™ Solutions offer end-to-end workflows that address specific challenges when implementing next-generation sequencing (NGS) for clinical oncology research. We understand that NGS applications and content need to be tailored for your lab's

needs. That's why we offer two types of workflows, a broad assay portfolio, complete bioinformatics, and technical support to suit the way you work.

Our menu of Ion Torrent™ OncoPrint™ assays is continually expanding.\*

FFPE tissue testing	Hematology-oncology solutions	Liquid biopsy testing solutions	Immuno-oncology solutions
<b>OncoPrint Precision Assay (GX):</b> fast, targeted genomic profiling across 50 genes that enables hands-free detection of key biomarkers in one day; compatible with FFPE or liquid biopsy specimens	<b>OncoPrint Myeloid MRD Assays (RUO):</b> detect important myeloid MRD biomarkers with high sensitivity (limit of detection down to 0.05% allele frequency); available in a DNA or RNA assay	<b>OncoPrint Precision Assay (GX):</b> fast, targeted genomic profiling across 50 genes that enables hands-free detection of key biomarkers in one day; compatible with FFPE or liquid biopsy specimens	<b>OncoPrint TCR Beta-LR Assay (GX):</b> measurement of T cell diversity and clonal expansion from all regions of the T cell beta chain, i.e., CDR1, 2, and 3
<b>OncoPrint Comprehensive Assay Plus (GX):</b> comprehensive genomic profiling across >500 genes, plus key immuno-oncology research biomarkers like tumor mutational burden (TMB), microsatellite instability (MSI), and homologous recombination deficiency (HRD)	<b>OncoPrint Myeloid Assay (GX):</b> profiling of multiple relevant driver genes associated with myeloid malignancies	<b>OncoPrint cfDNA Assays for Lung, Breast, and Colon:</b> plasma analysis of cell-free DNA (cfDNA) for specific cancer sample types with targeted cfDNA assays	<b>OncoPrint Comprehensive Assay Plus:</b> comprehensive genomic profiling across >500 genes, plus key immuno-oncology research biomarkers like tumor mutational burden (TMB), microsatellite instability (MSI), and homologous recombination deficiency (HRD)
<b>OncoPrint tumor-specific panels:</b> focused, predesigned cancer research panels with content relevant for clinical research including a predesigned homologous recombination repair (HRR) panel	<b>OncoPrint BCR Pan-Clonality Assay:</b> profiling of multiple B cell receptor targets (IGH, IgK, IgL, KDE, c-intron) with a single assay <b>OncoPrint TCR Pan-Clonality Assay:</b> profiling of multiple T cell receptor targets (TCRB, TCRG) with a single assay	<b>OncoPrint Breast cfDNA Assay v2:</b> plasma analysis of cell-free DNA for breast cancer-related variants including high coverage of TP53	<b>OncoPrint Tumor Mutation Load Assay:</b> quantitative assessment of TMB <b>OncoPrint TCR Beta-SR Assay:</b> identification of T cell clones; measurement of clonal expansion from CDR3 of the T cell beta chain
<b>OncoPrint Comprehensive Assay v3 (GX):</b> detects relevant SNVs, CNVs, gene fusions, and indels from 161 unique cancer-associated genes in one streamlined workflow	<b>OncoPrint IGHV Leader-J Assay:</b> accurate measurement of somatic hypermutation across the BCR IGHV gene	<b>OncoPrint Lung Cell-Free Total Nucleic Acid Research Assay:</b> plasma analysis of cfDNA and cell-free RNA (cfRNA) for lung cancer-related variants and tumor suppressor genes	<b>OncoPrint Immune Response Research Assay:</b> gene expression of tumor-immune system interactions
<b>OncoPrint Focus Assay:</b> enables simultaneous detection of hundreds of variants across 52 genes relevant to solid tumors; compatible with FFPE fine needle aspirates and core needle biopsies	<b>OncoPrint Lymphoma Assay:</b> profiling of key lymphoma-associated genes; customization of the panel with additional targets to suit your needs	<b>OncoPrint Pan-Cancer Cell-Free Assay:</b> plasma analysis of cfDNA and cfRNA across 18 different cancer sample types	<b>OncoPrint TCR Pan-Clonality Assay:</b> predicting immunotherapy response and adverse events through next-generation sequencing of peripheral blood T cell repertoires
<b>OncoPrint BRCA Research Assay (GX):</b> 100% exonic coverage of <i>BRCA1</i> and <i>BRCA2</i> genes, large indels, and exon or whole-gene deletion or duplication	<b>OncoPrint Childhood Cancer Research Assay:</b> comprehensive genomic profiling of childhood and young-adult cancer samples		

\* Portfolio as of October 2022.

Key: "(GX)" indicates availability on the Ion Torrent™ Genexus™ System. All others are available on the Ion GeneStudio™ S5 System.

Choose from a broad menu of both targeted and pan-cancer research assays for biomarker testing from FFPE tissue and blood samples.

Application area	Assay	 Genes	 FFPE sample	 Blood sample	 DNA	 RNA	 SNVs and indels	 CNVs	 Fusions	 Gene expression	 Ion Chef™ System	 Ion GeneStudio™ S5 System	 Ion Torrent™ Genexus™ System
FFPE tissue testing	Oncomine Precision Assay (GX)	50	✓	✓	✓	✓	✓	✓	✓				✓
	Oncomine Comprehensive Assay Plus (GX)	500+	✓		✓	✓	✓	✓	✓			✓	✓
	Oncomine Comprehensive Assay v3 (GX)	161	✓		✓	✓	✓	✓	✓		✓	✓	✓
	Oncomine Focus Assay	52	✓		✓	✓	✓	✓	✓		✓	✓	
	Oncomine BRCA Research Assay (GX)	2	✓		✓		✓				✓	✓	✓
	Oncomine tumor-specific panels	≤30	✓		✓	✓	✓	✓			✓	✓	
Hematology-oncology solutions	Oncomine Myeloid MRD Assays (RUO)	33+		✓	✓	✓	✓		✓	✓	✓	✓	
	Oncomine Myeloid Assay (GX)	69		✓	✓	✓	✓		✓	✓	✓	✓	✓
	Oncomine BCR Pan-Clonality Assay		✓	✓	✓						✓	✓	
	Oncomine TCR Pan-Clonality Assay		✓	✓	✓						✓	✓	
	Oncomine IGHV Leader-J Assay		✓	✓	✓						✓	✓	
	Oncomine Lymphoma Assay	25	✓	✓	✓		✓				✓	✓	
Oncomine Childhood Cancer Research Assay	203	✓	✓	✓	✓	✓	✓	✓		✓	✓		
Liquid biopsy testing solutions	Oncomine cfDNA Assays for Lung, Breast, and Colon	≤14		✓	✓		✓					✓	
	Oncomine Breast cfDNA Assay v2	12		✓	✓		✓	✓				✓	
	Oncomine Lung Cell-Free Total Nucleic Acid Research Assay	12		✓	✓	✓	✓	✓	✓			✓	
	Oncomine Pan-Cancer Cell-Free Assay	52		✓	✓	✓	✓	✓	✓			✓	
	Oncomine Precision Assay (GX)	50	✓	✓	✓	✓	✓	✓	✓				✓
Immuno-oncology solutions	Oncomine Comprehensive Assay Plus	500+	✓		✓	✓	✓	✓	✓			✓	
	Oncomine Immune Response Research Assay	395	✓		✓					✓	✓	✓	
	Oncomine TCR Beta-LR Assay (GX)		✓	✓		✓						✓	✓
	Oncomine TCR Beta-SR Assay		✓	✓	✓	✓						✓	
	Oncomine Tumor Mutation Load Assay	409	✓		✓		✓				✓	✓	
	Oncomine TCR Pan-Clonality Assay		✓	✓	✓						✓	✓	

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Learn more at [oncomine.com/assays](https://oncomine.com/assays)