

Assay portfolio

Oncomine Solutions for clinical oncology research

Oncomine™ 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™ Oncomine™ assays is continually expanding.*

FFPE tissue testing	Hematology-oncology solutions	Liquid biopsy testing solutions	Immuno-oncology solutions
Oncomine Precision Assay (GX): 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	Oncomine Myeloid MRD Assays (RUO): detect important myeloid MRD biomarkers with high sensitivity (limit of detection down to 0.05% allele frequency); available in a DNA or RNA assay	Oncomine Precision Assay (GX): 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	Oncomine TCR Beta-LR Assay (GX): measurement of T cell diversity and clonal expansion from all regions of the T cell beta chain, i.e., CDR1, 2, and 3
Oncomine Comprehensive Assay Plus (GX): 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)	Oncomine Myeloid Assay (GX): profiling of multiple relevant driver genes associated with myeloid malignancies	Oncomine cfDNA Assays for Lung, Breast, and Colon: plasma analysis of cell-free DNA (cfDNA) for specific cancer sample types with targeted cfDNA assays	Oncomine Comprehensive Assay Plus: 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)
Oncomine tumor-specific panels: focused, predesigned cancer research panels with content relevant for clinical research including a predesigned homologous recombination repair (HRR) panel	Oncomine BCR Pan-Clonality Assay: profiling of multiple B cell receptor targets (IGH, IgK, IgL, KDE, c-intron) with a single assay Oncomine TCR Pan-Clonality Assay: profiling of multiple T cell receptor targets (TCRB, TCRG) with a single assay	Oncomine Breast cfDNA Assay v2: plasma analysis of cell-free DNA for breast cancer-related variants including high coverage of TP53	Oncomine Tumor Mutation Load Assay: quantitative assessment of TMB Oncomine TCR Beta-SR Assay: identification of T cell clones; measurement of clonal expansion from CDR3 of the T cell beta chain
Oncomine Comprehensive Assay v3 (GX): detects relevant SNVs, CNVs, gene fusions, and indels from 161 unique cancer-associated genes in one streamlined workflow	Oncomine IGHV Leader-J Assay: accurate measurement of somatic hypermutation across the BCR IGHV gene	Oncomine Lung Cell-Free Total Nucleic Acid Research Assay: plasma analysis of cfDNA and cell-free RNA (cfRNA) for lung cancer-related variants and tumor suppressor genes	Oncomine Immune Response Research Assay: gene expression of tumor-immune system interactions
Oncomine Focus Assay: enables simultaneous detection of hundreds of variants across 52 genes relevant to solid tumors; compatible with FFPE fine needle aspirates and core needle biopsies	Oncomine Lymphoma Assay: profiling of key lymphoma-associated genes; customization of the panel with additional targets to suit your needs	Oncomine Pan-Cancer Cell-Free Assay: plasma analysis of cfDNA and cfRNA across 18 different cancer sample types	Oncomine TCR Pan-Clonality Assay: predicting immunotherapy response and adverse events through next-generation sequencing of peripheral blood T cell repertoires
Oncomine BRCA Research Assay (GX): 100% exonic coverage of <i>BRCA1</i> and <i>BRCA2</i> genes, large indels, and exon or whole-gene deletion or duplication	Oncomine Childhood Cancer Research Assay: 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	✓	✓	✓		✓				✓	✓	
Liquid biopsy testing solutions	Oncomine Childhood Cancer Research Assay	203	✓	✓	✓	✓	✓	✓	✓		✓	✓	
	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