

Next-Generation Sequencing for Solid and Hematologic Tumors

In February 2015, GenPath will be launching OnkoSight, a novel NGS solution designed to help understand the molecular characteristics of a patient's cancer and tailor more effective management strategies. The genomic alterations that drive cancer are becoming increasingly important for a patient's diagnosis, prognosis, and treatment selection. The OnkoSight technology interrogates the tumor's DNA to find these genomic alterations and has been optimized to work with minimal DNA input. The assays have been custom designed for clinical utility by enriching for clinically actionable findings and reducing unclear noise.

OnkoSight Benefits

- Custom developed panels focusing on clinically actionable genes. NCCN recommended genes are covered in panels.
 - 31 gene Solid Tumor Panel
 - 37 gene Myeloid Disorder Panel
- Focused, disease-specific panels available for Lung, Colon, and Melanoma in solid tumors; MDS, MPN, and AML in myeloid disorders.
- Competitively priced compared to other expensive NGS assays.
- Industry-leading turnaround time of 7-10 days.
- Physician Portal enabling access to up-to-date therapeutic eligibility and clinical trial information (trials updated nightly).
- Optimized to work with low input DNA amounts from FFPE tissue.
- Powered by ClearView Analytics to increase mutation detection sensitivity and reduce false positivity that may occur with standard off-the-shelf bioinformatic pipelines.



OnkoSight Myeloid Malignancy Panel (37 genes)

ABL1	ASXL1	BCOR	BCORL1	BRAF	CALR	CBL	CDKN2A
CSF3R	DNMT3A	ETV6	EZH2	FBXW7	FLT3	GATA2	HRAS
IDH1	IDH2	JAK2	KIT	KRAS	MPL	MYD88	NPM1
NRAS	PHF6	PTEN	PTPN11	RUNX1	SETBP1	SF3B1	SRSF2
TET2	TP53	U2AF1	WT1	ZRSR2			

OnkoSight Solid Tumor Panel (31 genes)

AKT1	ALK	BRAF	CTNNB1	DDR2	EGFR	EPHA2	ERBB2
ESR1	FGFR1	FGFR2	FGFR3	GNA11	GNAQ	HRAS	IDH1
IDH2	KIT	KRAS	MAP2K1	MET	MTOR	NOTCH1	NRAS
PDGFRA	PIK3CA	PTEN	RAC1	RET	ROS1	TP53	

Technical Specifications

Sensitivity & Specificity ¹	>99.9% at the listed Limit of Detection
Limit of Detection	5% allelic burden for SNVs, insertions, and deletions
Depth of Coverage	Average: 3000x, Minimum at any loci: 250x
FFPE DNA Input	As low as 1 ng (range of 0.5 – 20 ng)
Turnaround Time ²	7-10 days

1. If DNA meets laboratory quality control standards for degradation and quantification
2. From receipt of acceptable specimen in the laboratory