A non-invasive, liquid biopsy panel of 105 genes focused on oncogenic and resistance mutations in cell-free DNA (cfDNA). This panel is designed to provide clinical decision support for solid tumors.

- SNVs (single nucleotide variants) and insertions and deletions (indels) are detected in all 105 genes
- Copy Number Amplifications (CNAs), Copy Number Deletions (CNDs)[1], and gene rearrangements (translocations) are detected in a subset of genes
- DNA Sequencing Depth: average 20,000x (raw reads)/5,000x (unique reads)
- Specimen Requirements: Two Streck tubes of peripheral blood (8.5mL each)

The report includes genomic alterations in select genes, microsatellite instability status[2], median variant allele fraction (mVAF), therapy options and clinical trials matched to the patient's genomic profile, as well as clinical history.

xF GENE PANEL

AKT1	BRAF	CDK6	FGFR1	HRAS	MAP2K1	MYCN	PDGFRA	RET	TERT
AKT2	BRCA1	CDKN2A	FGFR2	IDH1	MAP2K2	NF1	PDGFRB	RHEB	TP53
ALK	BRCA2	CTNNB1	FGFR3	IDH2	MAPK1	NF2	PIK3CA	RHOA	TSC1
APC	BTK	DDR2	FGFR4	JAK1	MET	NFE2L2	PIK3R1	RIT1	TSC2
AR	CCND1	DPYD	FLT3	JAK2	MLH1	NOTCH1	PMS2	RNF43	UGT1A1
ARAF	CCND2	EGFR	FOXL2	JAK3	MPL	NPM1	PTCH1	ROS1	VHL
ARID1A	CCND3	ERBB2 (HER2)	GATA3	KDR	MSH2	NRAS	PTEN	SDHA	
ATM	CCNE1	ERRFI1	GNA11	KEAP1	MSH3	NTRK1	PTPN11	SMAD4	
ATR	CD274 (PD-L1)	ESR1	GNAQ	KIT	MSH6	PALB2	RAD51C	SMO	
B2M	CDH1	EZH2	GNAS	KMT2A	MTOR	PBRM1	RAF1	SPOP	
BAP1	CDK4	FBXW7	HNF1A	KRAS	MYC	PDCD1LG2	RB1	STK11	

GENE REARRANGEMENTS

ALK	BRAF	FGFR2	FGFR3	NTRK1	RET	ROS1

COPY NUMBER GAINS

CCNE1	CD274 (PD-L1)	EGFR	ERBB2 (HER2)	MET	MYC

COPY NUMBER GAINS/LOSSES

BRCA1	BRCA2

PERFORMANCE SPECIFICATIONS

	Variant Allele Fraction (VAF)	Sensitivity[3]
Single Nucleotide Variants (SNV)	>0.5%	>99.9%
	0.50%	>99.9%
	0.25%	97%
	0.10%[4]	70.4%
Insertions and Deletions	>0.5%	98.8%
	0.50%	96.0%
	0.25%	81.0%
Copy Number Amplifications (CNAs)	>0.5%	>99.9%
	0.5%	>99.9%
Rearrangements/ Fusions	>0.5%	97.4%
	0.50%	70.8%

ANALYTICAL SPECIFICITY

Variant Type	Specificity[3]
SNV	>99.9%
INDEL	>99.9%
CNA	96.2%
Fusion	>99.9%

1. BRCA1 and BRCA2 copy number loss are reported when detected
2. MSI status will be reported when the specimen is determined to be MSI-High
3. Established using reference materials
4. For selected hot spot regions