

# xF Gene Panel

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 support for clinical decision making for solid tumors. .

- SNVs (single nucleotide variants) and insertions and deletions (indels) are detected in all 105 genes
- Copy Number Amplifications (CNAs) 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, median variant allele fraction (mVAF), therapy options and clinical trials matched to the patient’s genomic profile, as well as available clinical history.

## xF GENE PANEL

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

## GENE REARRANGEMENTS

ALK	FGFR2	FGFR3	RET	ROS1
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## COPY NUMBER GAINS

CCNE1	EGFR	ERBB2 (HER2)	MET	MYC
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## PERFORMANCE SPECIFICATIONS

	Variant Allele Fraction (VAF)	Sensitivity <sup>1</sup>
Single Nucleotide Variants (SNV)	>0.50%	>99.9%
	0.50%	>99.9%
	0.25%	97.0%
Insertions and Deletions	>0.50%	98.8%
	0.50%	96.0%
Copy Number Amplifications (CNAs) <sup>2</sup>	>0.50%	>99.9%
	0.50%	>99.9%
Rearrangements/ Fusions <sup>2</sup>	>0.50%	97.4%
	0.50%	70.8%

## ANALYTICAL SPECIFICITY

Variant Type	Specificity <sup>1</sup>
SNV	>99.9%
INDEL	>99.9%
CNA	96.2%
Fusion	>99.9%

<sup>1</sup> Established using reference materials

<sup>2</sup> Variant Allele Fraction (VAF) is based on limit of detection dilution studies