

PredicineHEME™

CLIA Validated NGS Assay for Hematologic Malignancies

Highly sensitive NGS assay designed to predict responses to immunotherapies and targeted therapies for blood cancers

259

Key cancer genes interrogated



PLASMA



WHOLE BLOOD



BONE MARROW
ASPIRATE

20,000x

Sequencing Depth (Liquid Biopsy)



CNV*



SNV



INDEL



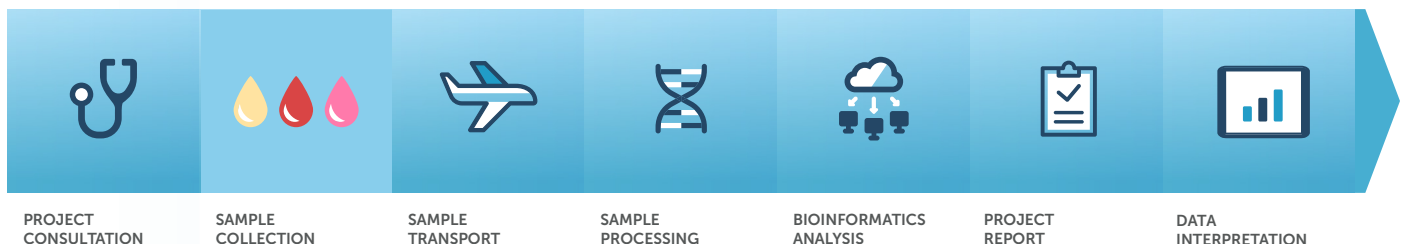
REARRANGEMENT

*Research Use Only (RUO)

Methods and Reporting

- Detects single nucleotide variants (SNVs), insertions and deletions (indels), copy number variations (CNVs), and DNA rearrangements
- Detects critical biomarkers in B-cell malignancies, including chronic lymphocytic leukemia/small lymphocytic lymphoma (CLL/SLL) and mantle cell lymphoma (MCL)
- Multiple sample types acceptable for testing, including whole blood, plasma, and bone marrow aspirate

Workflow



Gene List & Performance Specifications

PredicineHEMETS™ interrogates 259 key genes

ABL1	ACTG1	ACTN2	ADGRV1	AFDN	AKT1	ALK	ANKRD26	ARD1A	ARID1B	ASXL1	ATM	ATRX
B2M	BAX	BCL10	BCL2	BCL2L1	BCL6	BCLAF1	BCOR	BCORL1	BCR	BIRC3	BMI1	BRAF
BSN	BTG1	BTK	CALR	CARD11	CBFB	CBL	CCND1	CCND2	CCND3	CD274	CD38	CD70
CD79A	CD79B	CDK11A	CDK2	CDK4	CDK6	CDKN1B	CDKN2A	CDKN2B	CEBPA	CHD2	CHEK2	CMYA5
COL21A1	COL6A3	COP53	CRBN	CREBBP	CSF3R	CSMD1	CSMD2	CXCL12	CXCR4	CYLD	DDX3X	DDX41
DIS3	DMD	DNAH5	DNAH9	DNMT3A	DUSP2	EGFR	EGR1	EGR2	ELF1	EP300	ERBB3	ETNK1
ETV6	EWSRI	EZH2	FAM46C	FAS	FAT1	FAT3	FAT4	FBN2	FBXW7	FGFR1	FGFR3	FLT3
FOXO1	FOXO3	FOXP1	FRYL	GATA1	GATA2	GNA13	GNAI2	GNAS	GPS2	GRIA2	HIST1H1E	HIVEP2
HRAS	HYDIN	IDH1	IDH2	IFNGR2	IGRFR	IGH	IGK	IGL	IGLL5	IKZF1	IKZF3	IL10RA
IRF2BP2	IRF4	IRF8	ITCH	ITGA4	JAK1	JAK2	JAK3	KALRN	KDM6A	KIT	KLHL14	KLHL6
KMT2A	KMT2C	KMT2D	KRAS	LAMA1	LRP1B	LYN	MALT1	MAP2K1	MAP2K2	MAP3K14	MAPK1	MCL1
MED12	MEF2B	MEF2D	MGA	MK167	MKLN1	MFDZ	MPL	MTAP	MUC16	MYC	MYD88	NEB
NF1	NFKB1	NFKB2	NFKBIA	NFKBIE	NFKBIZ	NOTCH1	NOTCH2	NOTCH3	NPM1	NRAS	NRXN1	NSD2
NUP214	PAX4	PCDH15	PCLO	PDCD1	PHF6	PIK3CA	PIK3CD	PIK3R1	PIM1	PIM2	PLCG1	PLCG2
PML	POT1	POU2FR	PPM1D	PRDM1	PRDM2	PRPF8	PTCHD4	PTEN	PTPN11	PTPN13	PTPRD	RARA
PLEKHG1	RB1	RHOA	RNF19B	RPS15	RUNX1	RYR1	RYR2	S1PR1	SCN2A	SDC1	SETBP1	SETD2
SF3B1	SGK1	SH2B3	SI	SLC16A1	SLC16A5	SLC4A7	SOC31	SOX11	SPEN	SRSP2	STAG2	STAT1
STAT2	STAT3	STAT5B	STAT6	SVIL	SYNE1	TBL1XR1	TERT	TET2	TLR2	TNFAIP3	TNFRSF13C	TNFRSF14
TNFRSF17	TNFRSF1A	TOLLIP	TOP1	TP53	TRAF2	TRAF3	TRIO	TRRAP	TTN	U2AF1	USH2A	VCAN
VILL	WT1	XIRP2	XPO1	ZEB2	ZFH4	ZFP36L1	ZMYM3	ZNF292	ZNF717	ZRSR2		

Full CDS (Bold) SNVs + Indels Deletion Rearrangement Amplification

PERFORMANCE SPECIFICATIONS				
	Reportable Ranges	Allele Frequency/Copy Number	Sensitivity	Positive Predictive Value (PPV)
Single Nucleotide Variations	≥0.05%	1% MAF	100%	100%
		0.5% MAF	100%	100%
		0.3% MAF	99.4%	100%
Indels	≥0.05%	1% MAF	100%	100%
		0.5% MAF	100%	100%
		0.3% MAF	100%	100%
DNA Rearrangements	≥0.05%	0.5% MAF	100%	100%
		0.3% MAF	100%	100%
Regions Analyzed	1.1 Mb			
Sequencing	Illumina NGS			
Turnaround Time	8 days			
Target Sequence Coverage	20,000x			
	CLIA		RUO	
Specimen Type and Requirement	20 mL blood 0.2-0.4 mL bone marrow aspirate		2 -5 mL plasma 4-10 mL blood 0.2-0.4 mL bone marrow aspirate	