PILLAR BIOSCIENCES

Early Access Product

Pillar® ONCO/Reveal™ Myeloid Panel

The ONCO/Reveal Myeloid Panel is a robust NGS assay that interrogates 58 genes of interest* most relevant to myeloid cancer. The panel uses proprietary Stem-Loop Inhibition-Mediated amplification (SLIMamp®) technology for efficient single-tube target enrichment.

ONCO/Reveal Myeloid Panel (58 genes)

ABL1	BRAF	CEBPA	ETV6	HRAS	KDM6A	NPM1	PTEN	SMC1A	TP53
ANKRD26	CALR	CSF3R	EZH2	IDH1	KIT	NRAS	PTPN11	SMC3	U2AF1
ASXL1	CBL	CUX1	FLT3	IDH2	KMT2A	PDGFRA	RAD21	SRSF2	WT1
ATRX	CBLB	DDX41	GATA1	IKZF1	KRAS	PHF6	RUNX1	STAG1	ZRSR2
BCOR	CBLC	DNMT3A	GATA2	JAK2	MPL	PIGA	SETBP1	STAG2	
BCORL1	CDKN2A	ETNK1	GNAS	JAK3	NF1	PPM1D	SF3B1	TET2	

Simple NGS library prep workflow

Maintain control of samples and results with single-tube, tiled amplification that can be performed in-house by any NGS lab

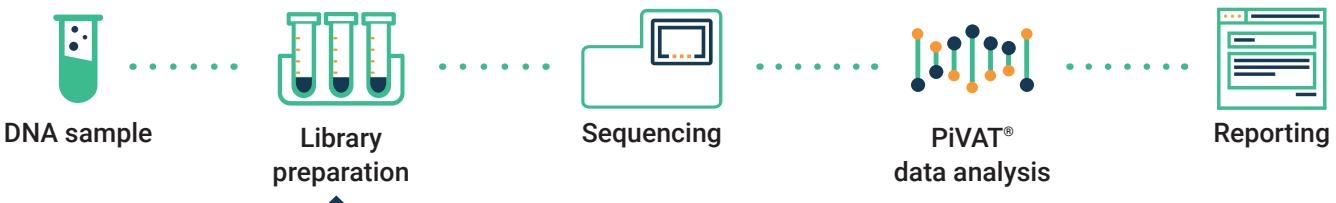
Sensitive and robust chemistry

Achieve variant detection as low as 1% VAF† without UIDs‡ even with limited DNA input or poor sample quality

Reduced fully-loaded lab costs

Improve lab efficiency with quicker turnaround time and reduced “no calls”, repeat testing, and difficult interpretation decisions

Simple, one-day workflow



Gene-specific PCR & cleanup · Indexing PCR & cleanup · Quantitation & normalization · Load sequencer

*Panel content was designed in accordance with the Association for Molecular Pathology (AMP) guidelines and incorporates guidance from multiple hematologists. †VAF, variant allele frequency. ‡UID, unique ID; also known as unique molecular ID (UMI)

Panel attributes

Enrichment chemistry	Multiplex PCR using tiled amplicons
Number of pools	**1 pool**
Number of genes/amplicons	58/766
Number of targets	Full CDS coverage of 18 genes plus hotspots on 40 additional genes
Variant types	SNVs, indels, ITD (internal tandem duplicates)
Average amplicon size	215bp
Recommended DNA input range	10ng to 80ng (20ng recommended)
Sample types	Whole blood, PMBCs
Mapping rate	95%
% on-target aligned reads	98%
Coverage uniformity (% targets with >0.2X mean coverage)	96%
Total assay time (from DNA to sequencer)	<8 hours
Sequencing platforms	Illumina®; assays are coming soon for MGISEQ™ and Ion Torrent™ platforms

Gene	Exon ID Full CDS	Exon ID Partial CDS
ABL1	4,5,6,7,8,9	
ANKRD26	5'UTR	1
ASXL1	12,13	
ATRX	8-11, 17-31	
BCOR	All Exons	
BCORL1	All Exons	
BRAF	11,15	
CALR		9
CBL	3,5,8,9,10,12,13	1,2,16
CBLB	9,10	
CBLC	9	
CDKN2A	All Exons	
CEBPA	All Exons	
CSF3R	14,15,16	
CUX1	1,2,3,4,5,9,10,12,17,20	21,24
DDX41	1,3,5,6,8,10,11,14,15	
DNMT3A	All Exons	
ETNK1	3	
ETV6	All Exons	
EZH2	All Exons	
FLT3	14,15,20	13
GATA1	2	
GATA2	All Exons	
GNAS	8,9	
HRAS	2,3	
IDH1	4	
IDH2	4,6	
IKZF1	All Exons	
JAK2	12,13,14,15	

Gene	Exon ID Full CDS	Exon ID Partial CDS
JAK3	13	
KDM6A	All Exons	
KIT	2,8,9,10,11,13,14,15,17,18	
KMT2A	2,6,8,9,10,11,31,35	1,3,4,5,7,27
KRAS	2,3,4	
MPL	10	
NF1	1,2,3,6,12,30,41,45,49,52,58	4,37,38,39
NPM1	11	
NRAS	2,3,4	
PDGFRA	12,14,15,18	
PHF6	All Exons	
PIGA	All Exons	
PPM1D	6	
PTEN	5,7	
PTPN11	3,13	
RAD21	All Exons	
RUNX1	All Exons	
SETBP1	4	
SF3B1	13,14,15,16	
SMC1A	2,9,11,16,17,22	3
SMC3	10,13,19,23,25,28	
SRSF2	1	
STAG1	10,11,12,16,22,29,30	
STAG2	All Exons	
TET2	All Exons	
TP53	All Exons*	
U2AF1	1,2,3,5,6,8	
WT1	2,3,4,5,6,7,8,9,10	1
ZRSR2	All Exons	

* Full CDS coverage only for CCDS11118.1/CCDS45606.1; NM_001126112.2/NM_000546.5/NM_001126114.2.

Order or learn more at

pillar-biosciences.com

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