PILLAR BIOSCIENCES

Pillar® ONCO/Reveal™ Essential MPN Panel

The ONCO/Reveal Essential MPN Panel is a robust assay that simultaneously tests for key mutations within the MPL, JAK2, and CALR genes. Up to 75 samples can be multiplex on a single MiSeq v2 Nano cartridge. The panel uses proprietary Stem-Loop Inhibition-Mediated amplification (SLIMamp®) technology for efficient single-tube target enrichment.

ONCO/Reveal Essential MPN Panel

Gene (exon #)
MPL (ex10)
JAK2 (ex12)
JAK2 (ex14)
CALR (ex9)

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
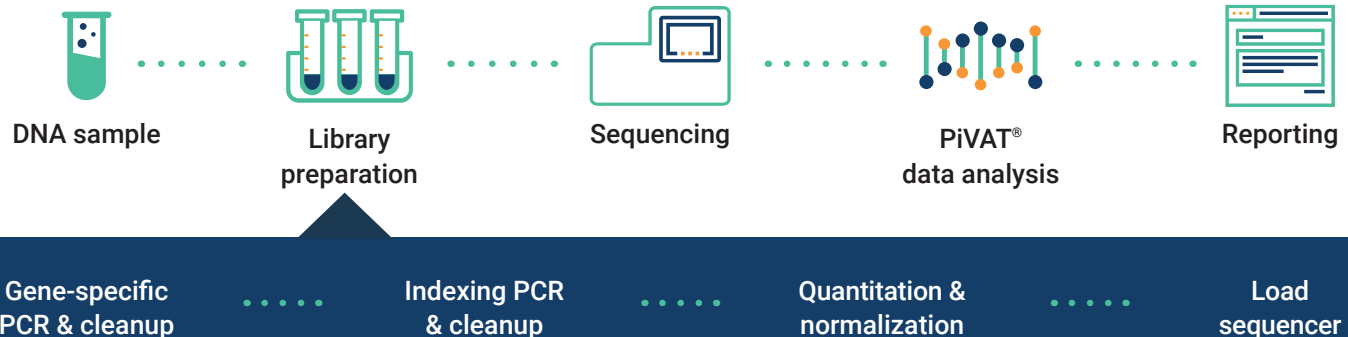
Sensitive and robust chemistry

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 and reduce "no calls", repeat testing, and difficult interpretation decisions

Simple, one-day workflow

DNA sample ····· Library preparation ····· Sequencing ····· PiVAT® data analysis ····· Reporting

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

†VAF, variant allele frequency; ‡UID, unique ID; also known as unique molecular ID (UMI)

Panel specifications

Enrichment chemistry	Multiplex PCR using tiled amplicons
Number of pools	**1 pool**
Number of genes/amplicons	3/7
Number of targets	MPL ex10, JAK2 ex12, JAK2 ex14, CALR ex9
Variant types	SNVs, small and medium indels
Average amplicon size	167bp (range 110bp – 190bp)
Recommended DNA input range	10ng to 80ng (20ng recommended)
Sample types	Whole blood, PBMCs
Mapping rate	99.8% ± 0.1%
% on-target aligned reads	99.9% ± 0.0%
Coverage uniformity (% targets with >0.2X mean coverage)	100%
Total assay time (from DNA to sequencer)	<8 hours
Sequencing platforms	Illumina®, MGISEQ™, and Ion Torrent™ platforms

Ordering information

Select the panel AND one of the index kit options listed below.

Panel	Part number
ONCO/Reveal Essential MPN Panel	HDA-MY-1002-48

Pillar Index Kit options	Part number
Pillar Kit A, indices PI501-8, PI701-4 (32 combinations)	IDX-PI-1001-96
Pillar Kit B, indices PI501-8, PI705-8 (32 combinations)	IDX-PI-1002-96
Pillar Kit C, indices PI501-8, PI709-12 (32 combinations)	IDX-PI-1003-96
Pillar Kit D, indices PI501-8, PI701-12 (96 combinations)	IDX-PI-1004-192
Pillar Kit E, indices PI501-8, PI701-12 (96 combinations)	IDX-PI-1004-384

Ion Torrent Index Kit options	Part number
Pillar Biosciences IonXpress Indexing Kit A (24 combinations) *Includes ION Common Index*	IDX-TI-1001-96

MGI Index Kit options	Part number
Pillar Biosciences MGI Indexing Kit A (24 combinations) *Includes BGI Common Index*	IDX-BI-1001-96

Order or learn more at
pillar-biosciences.com

MK-0017-2

PILLAR BIOSCIENCES