

# 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 multiplexed 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 (ex12-15)

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<sup>†</sup> without UID<sup>‡</sup>s 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



Gene-specific  
PCR & cleanup

Indexing PCR  
& cleanup

Quantitation &  
normalization

Load  
sequencer

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

## Panel specifications

Enrichment chemistry	Multiplex PCR using tiled amplicons
<b>Number of pools</b>	<b>1 pool</b>
Number of genes/amplicons	3/7
Number of targets	MPL ex10, JAK2 ex12-15, 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) <i>Includes ION Common Index</i>	IDX-TI-1001-96

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

Order or learn more at  
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