



ACCEL-AMPLICON® PLUS MYELOID PANEL

The Myeloid Panel offers comprehensive and exon-level hotspot coverage of 23 clinically-relevant myeloid genes, covering 12,000 COSMIC and 1,900 ClinVar mutations. This panel generates targeted libraries compatible with Illumina® sequencing platforms.

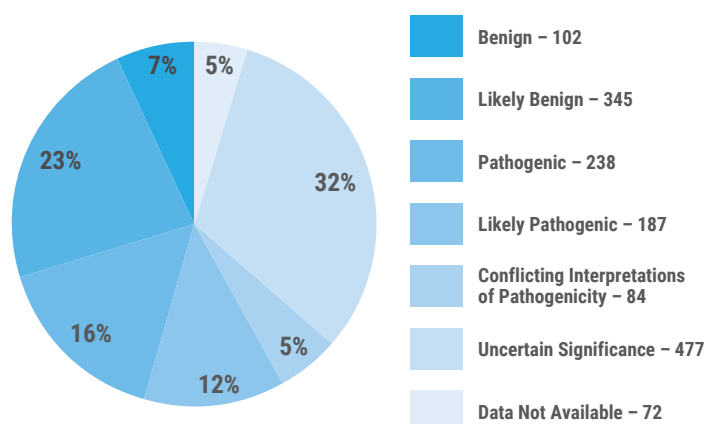


Figure 1. ACMG and AMP-classified variants of clinical significance covered by the Myeloid Panel.

This panel enables:

- Full exon coverage of *TP53*
- Compatibility with wide range of samples
- Data analysis options including Primerclip and Genialis
- Addition of your own custom content

Product Specifications

Feature	Specification
Amplicons	478
Average Amplicon Size	142 bp
Number of Genes	23
Gene List	ASXL1, CALR, CEBPA, CSF3R, DNMT3A, EZH2, FLT3, HRAS, IDH1, IDH2, JAK2, JAK3, KDM6A, KIT, MPL, NPM1, RUNX1, SETBP1, SF3B1, SRSF2, TET2, TP53 , U2AF1 (Bold indicates whole CDS coverage)
Total Target	42 kb
Input Recommended	10 ng amplifiable DNA
Assay Format	Single-tube Multiplex PCR reaction + Dual Indexed Adapters
Time Required	2 hours from DNA to library
Multiplexing on MiSeq v3 at 5000X depth (50M PE reads)	20 samples
Limit of Detection	1% SNV
Sample Compatibility	Cell line, whole blood, cell-free DNA, FFPE

Performance

Achieve Robust Sequencing Performance Over a Wide Range of Samples

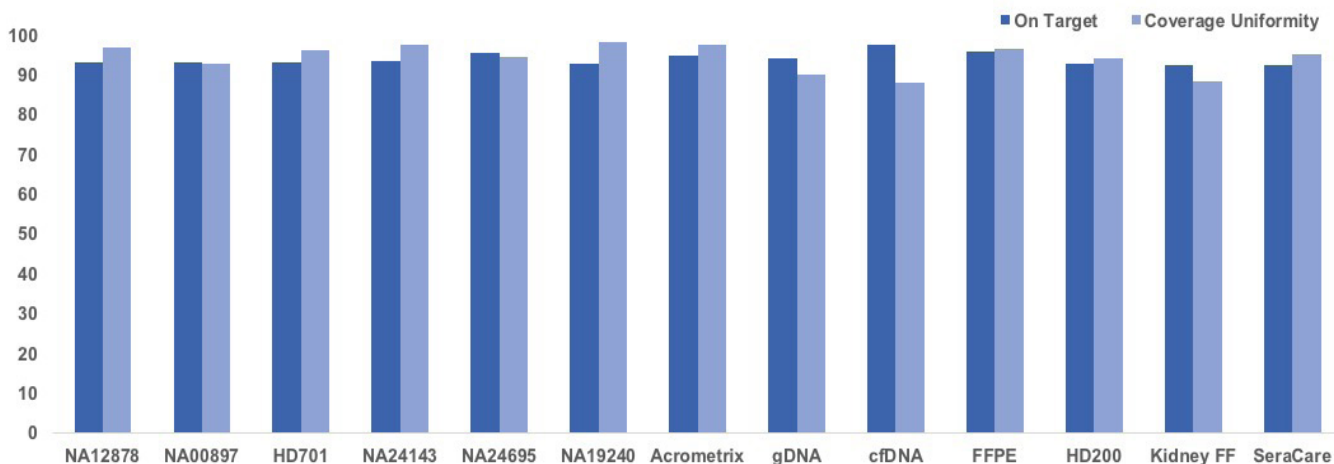


Figure 2. An array of control DNA samples (10 ng input for each) was used to generate libraries with the Accel-Amplicon Plus Myeloid Panel. The samples include male and female Coriell repository DNAs of different ethnicities, Horizon HD701 quantitative multiplex reference standard, the Acrometrix™ Oncology Hotspot Control, gDNA and cfDNA extracted from human blood, circulating cell-free DNA, and three formalin-compromised samples, including Horizon HD200 FFPE. The SeraCare Myeloid standard DNA contains 23 clinically-relevant DNA mutations for myeloid cancers across 16 genes, with mutation targets quantitated with digital PCR at 5, 10, or 15% allele frequencies. Libraries were sequenced on an Illumina MiniSeq instrument and the on target aligned reads and coverage uniformity percentages were plotted.

Detect Low Frequency Variants Accurately from Formalin-Compromised DNA

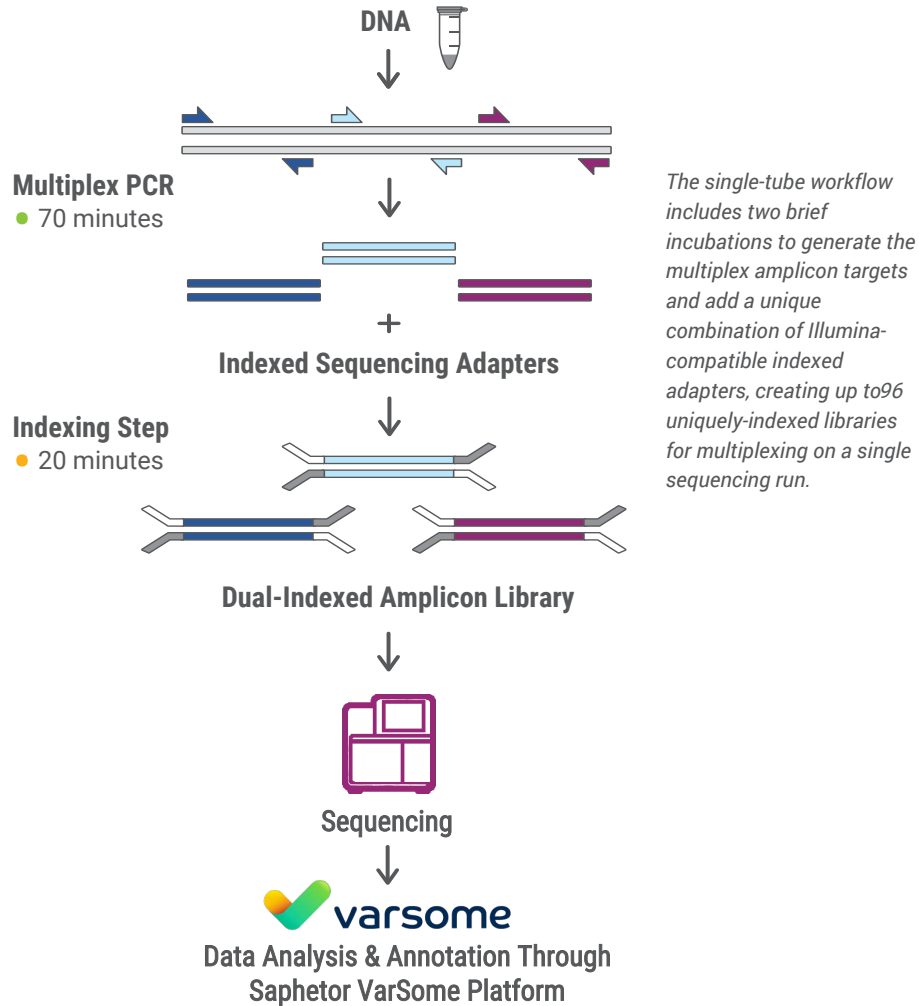
Myeloid malignancies are characterized by a wide variety of variant types, including SNVs, insertions/deletions, and internal tandem duplications at a range of allelic frequencies. The Accel-Amplicon Plus Myeloid Panel was run against a reference standard containing clinically-relevant DNA mutations across 16 genes. Mutation targets consist of different variant types and were quantitated by the manufacturer with digital PCR at 5, 10, or 15% allele frequencies. All variants covered by the core panel design were detected at the expected frequency with the Accel-Amplicon Plus Myeloid Panel. A subset of these variants are described below, and the full reference dataset is available for download from www.swiftbiosci.com.

CHR	POS	Gene	Mutation AA	Mutation Type	Expected Frequency (%)	Average Detected Frequency (%)
19	33792381	CEBPA	p.K313_V314insK	Ins	15	16.7
13	28608249	FLT3	N/A	ITD	10	11.7
20	31022402	ASXL1	p.E635fs*15	Del	10	9.6
2	209113113	IDH1	p.R132C	SNV	5	6.9
19	13054564	CALR	p.L367fs*46	Del	5	2.0
9	5073770	JAK2	p.V617F	SNV	5	6.0

Figure 3. The Accel-Amplicon Plus Myeloid Panel consistently detected the validated variants at the expected frequency in replicates from 10 ng of the SeraCare™ Myeloid Reference Material. Variants were called by LoFreq (Genome Institute of Singapore) and GATK-HC (obtained by calculating the ratio of Alternate Alleles and total Allele Depth (AD)).

Fully customizable. Rapidly create your own panel by building from our pre-designed Accel-Amplicon Plus panels. You can add any target gene including our pre-validated primers or novel targets. We will design, pool and validate your assay for you.

Single-Tube, 2-Hour Workflow



Ordering Information

Product Name	Indexing Included	Catalog No.
Accel-Amplicon Plus Myeloid Panel (48 rxns)	8 i5* X12 D701-712	AP-MY8048
VarSome Data Analysis Token (48 Samples)	N/A	AL-VS48

i5* Illumina Truseq CD indexes D501-D508

Visit www.swiftbiosci.com for easy ordering.



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