HENRY FORD HEALTH
CENTER FOR PRECISION DIAGNOSTICS

Myeloid PLUS Sequencing Panel

Targeted next generation sequencing assay for detection of hot spot mutations in 50 cancer-related genes. The Myeloid PLUS Sequencing Panel is to be used in diagnostic, prognostic, targeted therapy panel for patients with myeloid neoplasms (AML, MPN, MDS, MDS/MPN) as class defining or risk modifier according to current WHO guidelines

Testing Method and Background

This test utilizes hybrid capture method followed by **Next Generation Sequencing (NGS) technology** for detection of mutations in 50 genes associated with Hematologic malignancies (tumor suppressor genes and oncogenic hot spots) using extracted DNA from blood or bone marrow specimens. Data analysis provides variant detection and annotation, interpretation of clinically significant genomic alterations and their association to approved or investigational therapies. This assay is designed to detect single nucleotide variants, insertions, deletions and copy number alterations within the defined target regions. Variants outside the define regions may not be detected.

Highlights of Myeloid PLUS Sequencing Panel

Targeted Genes

ANKRD26, ASXL1, ATRX, BCOR, BCORL1, BRAF, CALR, CBL, CEBPA, CSF3R, CUX1, DDX41, DNMT3A, ENTK1,ETV6, EZH2, FLT3, GATA2, GNAS, HRAS, IDH1, IDH2, JAK2, JAK3, KIT, KMT2A, KRAS, MPL, NF1, NPM1, NRAS, PHF6, PPM1D, PTPN11, RAD21, RUNX1, SETBP1, SF3B1, SH2B3, SMC1A, SMC3, SRP72, SRSF2, STAG2, TET2, TP53, U2AF1, WT1, ZRSR2

** Specific exon coverage listed on next page

- **Accurate Results from Low-Quality Samples**
  Workflow with low quantity of input DNA and accurate detection of variants down to 5% mutant allele frequency.
- **Wide-ranging Coverage of Variants**
  Assessment of single-nucleotide variants (SNVs) and small insertions/deletions within multiple target exons.

Ordering Information

Get started (non-HFHS): Print a Molecular Hematologic Testing requisition form online at www.HenryFord.com/HFCPD

Get started (HFHS): Order through Epic using test "Myeloid PLUS Sequencing Panel" (MOL8031 Blood, MOL8035 Bone Marrow)

Specimen requirements:

- Peripheral Blood - 1-3ml in lavender top tube (EDTA) **Specimen stability: Ambient - 72 hours; Refrigerated - 1 week**
- Bone Marrow - 1-3ml, anticoagulated with either heparin or EDTA, **Specimen stability: Refrigerated - 1 week** (ship cold)
- Extracted DNA - from a CLIA-certified Laboratory

Cause for Rejection: Clotted, hemolyzed, or frozen specimens, improper anticoagulant, tubes not labeled with dual patient identification, non-dedicated tubes.

TAT: 5-10 business days (after Prior Authorization obtained)

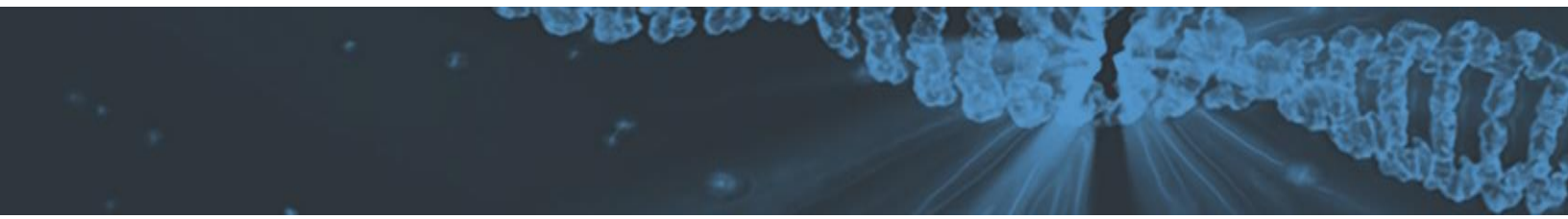
Mail test material to:
Henry Ford Center for Precision Diagnostics
Pathology and Laboratory Medicine
Clinic Building, K6, Core Lab, E-655
2799 W. Grand Blvd., Detroit, MI 48202

CPT Codes: 81450, G0452

Contact us: Client Services, Account and Billing Set-up, and connect with a Molecular Pathologist at (313) 916-4DNA (4362)

For more information on Comprehensive Molecular Services, visit our website www.HenryFord.com/HFCPD

Revision: 1; 09-20-22



Myeloid PLUS Sequencing Panel

Gene	Target Regions	Gene	Target Regions
ANKRD26	Exons 1-4 (including full 5'-UTR)	KDM6A	All coding exons
ASXL1	Exons 9, 11, 12	KIT	Exons 2, 8-11, 13, 17, 18
ATRX	All coding exons	KMT2A	All coding exons
BCOR	All coding exons	KRAS	All coding exons
BCORL1	All coding exons	MPL	All coding exons
BRAF	Exon 15	NF1	All coding exons
CALR	Exon 9	NPM1	Exons 10 and 11
CBL	Exons 8 and 9, introns 7 and 8	NRAS	Exons 2-5
CEBPA	All coding exons	PHF6	All coding exons
CSF3R	Exons 3-17	PPM1D	All coding exons
CUX1	All coding exons	PTPN11	Exons 3, 7-13
DDX41	All coding exons	RAD21	All coding exons
DNMT3A	All coding exons	RUNX1	All coding exons
ETNK1	Exon 3	SETBP1	Exon 4
ETV6	All coding exons	SF3B1	Exons 10-16
EZH2	All coding exons	SH2B3	All coding exons
FLT3	Exons 11, 13-17, 20	SMC1A	All coding exons
GATA2	All coding exons	SMC3	Exons 10, 13, 19, 23, 25, 28
GNAS	Exons 8 and 9	SRP72	All coding exons
HRAS	Exons 2 and 3	SRSF2	Exon 1
IDH1	All coding exons	STAG2	All coding exons
IDH2	All coding exons	TET2	All coding exons
JAK2	All coding exons	TP53	All coding exons
JAK3	All coding exons	U2AF1	Exons 2, 6
KDM6A	All coding exons	WT1	Exons 7, 9
KIT	Exons 2, 8-11, 13, 17, 18	ZRSR2	All coding exons