PathGroup
Physician Centered. Patient Focused.

SmartGenomics™ Myeloid Profile

Oncology Services

Clinical to Genomic

Advanced Standard of Care

***SmartGenomics: Myeloid* testing uses Next Generation Sequencing (NGS) to gain insights into the driving mechanisms of an individual patient's hematological malignancy.**

Patients with hematologic malignancies who may benefit the most are:

- Patients with morphologic and/or clinical suspicion of a myeloid disease
- Relapsed or refractory patients
- Intermediate or cyto-normal Acute Myeloid Leukemia
- Patients who present with atypical disease based on age and other clinical factors
- Any transformed or blast phase disease

Diagnostic, Predictive, Prognostic, Therapeutic

All hematologic cancers are genomic diseases fueled by molecular alterations – each with their own unique genomic profile. Utilizing SmartGenomics within the continuum of care enables physicians to individualize treatment by providing important prognostic stratification and potentially matching a patient with the most effective therapy or trial—creating personalized, more precise cancer management.

- 65 genes, including **21 genes recommended in the NCCN guidelines**
- Rapid turnaround time of 7 to 10 days, critical in acute cases

Our Advantage

PathGroup is your partner in high-quality patient care and service. We offer the most comprehensive, personalized oncologic pathology services with the latest and most accurate diagnostics tools.

- Team led by trained experts in molecular genetics and bioinformatics
- High-volume, high-quality laboratory with full menu of testing services
- Industry-leading turnaround times and test performance
- Adherence to NCCN/ASCO/CAP guidelines for appropriate, responsible testing

(profile components listing on back)

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Tailored Genomic Myeloid Profile

Gene Name	Sequencing Region
ABL1	Codons 244-493
ASXL1	Codons 630-643, 1102-1107
ATM	All protein coding regions plus splice sites
ATRX	Exons 8-31
BCORL1	All protein coding regions plus splice sites
BRAF	Codons 464-472, 581-602
CALR	Exon 9
CBL	Codons 371-384, 416-420
CCND1	Exon 1, 2
CCND3	Codons 260-289
CDKN2A	All protein coding regions plus splice sites
CEBPA	All protein coding regions plus splice sites
CRLF2	All protein coding regions plus splice sites
CSF3R	Exons 14-17
CTNNB1	Codons 23-66
CUX1	All protein coding regions plus splice sites
DDX3X	Codons 330-341, 410-411
DNMT3A	All protein coding regions plus splice sites
ETV6	All protein coding regions plus splice sites
EZH2	All protein coding regions plus splice sites
FGFR3	Codons 248-250, 370-393, 650-652, 697
FLT3	Codons 569-613 (ITD), 835
GATA1	Codons 1-30
GATA2	All protein coding regions plus splice sites
GATA3	Codons 309-445
GNAS	Exons 8,9
HRAS	Codons 12-13, 61, 117
IDH1	Codon 132
IDH2	Codons 140, 172
IKZF1	All protein coding regions plus splice sites
IL7R	Codons 237-245
JAK2	Exons 12-14
KDM6A	All protein coding regions plus splice sites
KIT	Exons 9, 14, codons 416-422, 541-546, 550-592, 642, 796-850

Gene Name	Sequencing Region
KRAS	Codons 12-13, 61, 117, 146
MAP2K1	Codons 56-67, 121-124
MPL	Codons 490-522
NF1	All protein coding regions plus splice sites
NF2	All protein coding regions plus splice sites
NOTCH1	Codons 1574-1578, 1585-1607, 1674-1680, 2438-2444, 2459-2467, 2492-2503, 2512-2523
NPM1	Codons 287-292
NRAS	Codons 12-13, 61, 117, 146
PHF6	All protein coding regions plus splice sites
PRDM1	Codons 59-62
PTEN	All protein coding regions plus splice sites
PTPN11	Codons 60-76, 502-503
RAD21	All protein coding regions plus splice sites
RUNX1	All protein coding regions plus splice sites
SETBP1	Codons 852-892
SETD2	All protein coding regions plus splice sites
SF3A1	Codon 478
SF3B1	Exons 13-16
SH2B3	Exons 1-3
SMC1A	All protein coding regions plus splice sites
SMC3	All protein coding regions plus splice sites
SRSF2	Codons 95-107
STAG2	All protein coding regions plus splice sites
STK11	Codons 36-37, 60-66, 170-171, 194-199, 281-282, 354
SUZ12	All protein coding regions plus splice sites
TET2	All protein coding regions plus splice sites
TP53	All protein coding regions plus splice sites
U2AF1	Codons 34-35, 156-160
U2AF2	Codons 143, 190
WT1	Codons 298-314, 390-397
ZRSR2	All protein coding regions plus splice sites