

Hematologic FISH Panels

Acute Lymphoblastic Leukemia (ALL)

Assay	Probed Regions
Adult	
PBX1/E2A t(1;19)	1q23.3; 19p13.3
Trisomy 4/Trisomy 10	4p11.1-q11.1, 10p11.1-q11.1
MYB Deletion/Trisomy 6	6p21.1, 6q21, 6q23.3
MYC Rearrangement	8q24
BCR/ABL1/ASS1 t(9;22)	9q34.11-q34.12; 22q11.22-q11.23
MLL Rearrangement	11q23.3
IGH Rearrangement	14q32.33
P53 Deletion	17p11.1-q11.1, 17p13.1
P16 Deletion (for T-ALL) (optional)	9p21.3, 9q12
Pediatric	
PBX1/E2A t(1;19)	1q23.3; 19p13.3
Trisomy 4/Trisomy 10	4p11.1-q11.1, 10p11.1-q11.1
MYC Rearrangement	8q24
BCR/ABL1/ASS1 t(9;22)	9q34.11-q34.12; 22q11.22-q11.23
MLL Rearrangement	11q23.3
TEL/AML1 (ETV6/RUNX1) t(12;21)	12p13; 21q22
IGH Rearrangement	14q32.33

Acute Myelocytic Leukemia (AML)

Assay	Probed Regions
-5/5q Deletion (including EGR1)	5p15.3, 5q31.2
-7/7q Deletion	7p11.1-q11.1, 7q22.1-q22.2, 7q31.2
Trisomy 8/20q Deletion	8p11.1-q11.1, 20q12, 20q13.12
ETO/AML1(RUNX1T1/RUNX1) t(8;21) -M2	8q21; 21q22
BCR/ABL1/ASS1 t(9;22)	9q34.11-q34.12; 22q11.22-q11.23
MLL Rearrangement - M4/M5	11q23.3
PML/RARA t(15;17) - M3/APL	15q24.1; 17q21.1-q21.2
CBFB inv(16) t(16;16) - M5	16q22
RARA Rearrangement (optional)	17q21

If normal, consider the following (additional cost)

RB1 Deletion	13q14.2, 13q34
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Chronic/Small Lymphocytic Leukemia (CLL/SLL)

Assay	Probed Regions
MYB Deletion	6q21, 6q23.3
ATM Deletion & p53 Deletion	11q22.3, 17p13.1
Trisomy 12 & 13q Deletion	12p11.1-q11.1, 13q14.3, 13q34
IGH/CCND1 t(11;14)	11q13.3; 14q32.33
IGH Rearrangement	14q32.33

If IGH is abnormal, physician will be contacted before reflex to: (additional cost)

IGH/BCL2 t(14;18)	14q32; 18q21.33
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Chronic Myelocytic Leukemia (CML)

Assay	Probed Regions
BCR/ABL1/ASS1 t(9;22)	9q34.11-q34.12; 22q11.22-q11.23

Hypereosinophilia Syndrome (HES)/Eosinophilia

Assay	Probed Regions
FIPL1/CHIC2/PDGFRA (Del/Rearrangement)	4q12
PDGFRB Rearrangement	5q32
FGFR1 Rearrangement	8p11.23-p11.22, 8p11.23-q11.22
CBFB inv(16)/t(16;16)	16q22

Myeloproliferative Neoplasm (MPN)

Assay	Probed Regions
-5/5q Deletion (including EGR1)	5p15.3, 5q31.2
-7/7q Deletion	7p11.1-q11.1, 7q22.1-q22.2, 7q31.2
Trisomy 8/20q Deletion	8p11.1-q11.1, 20q12, 20q13.12
Trisomy 9/P16 Deletion	9p21.3, 9q12
BCR/ABL1/ASS1 t(9;22)	9q34.11-q34.12; 22q11.22-q11.23
RB1 Deletion	13q14.2, 13q34

If normal, consider the following (additional cost)

FIPL1/CHIC2/PDGFRA (Del/Rearrangement)	4q12
PDGFRB Rearrangement	5q32
FGFR1 Rearrangement	8p11.23-p11.22, 8p11.23-q11.22

Myelodysplastic Syndrome (MDS)

Assay	Probed Regions
-5/5q Deletion	5p15.3, 5q31.2
-7/7q Deletion	7p11.1-q11.1, 7q22.1-q22.2, 7q31.2
Trisomy 8/20q Deletion	8p11.1-q11.1, 20q12, 20q13.12
MLL Rearrangement	11q23.3
P53 Deletion	17p11.1-q11.1, 17p13.1

Multiple Myeloma (MM)/MGUS

Assay	Probed Regions
1p Deletion/1q Amplification	1p32.3, 1q21.3
Trisomy 5/Trisomy 9/Trisomy 15	5p15.31; 9q12; 15p11.1-q11.1
IGH/CCND1 t(11;14) & Trisomy 11	11q13.3; 14q32.33
RB1 Deletion	13q14.2, 13q34
IGH Rearrangement	14q32.33
P53 Deletion	17p11.1-q11.1, 17p13.1

If IGH is abnormal, physician will be contacted before reflex to: (additional cost)

IGH/FGFR3 t(4;14)	4p16; 14q32
IGH/MAF t(14;16)	14q32; 16q23
IGH/MAFB t(14;20)	14q32; 20q12

Non-Hodgkin Lymphoma (NHL)

Assay	Probed Regions
ALK Rearrangement (anaplastic large cell)	2p23.2-p23.1
BCL6 Rearrangement (diffuse large cell)	3q27
MYC Rearrangement	8q24
IGH/CCND1 t(11;14) (mantle cell)	11q13.3; 14q32.33
IGH Rearrangement	14q32.33
IGH/BCL2 t(14;18) (follicular)	14q32; 18q21.33
MALT1 Rearrangement	18q21.32

IGH /cMYC Rearrangement t(8/14) (Burkitt)(optional)	8q24.21; 14q32
BCL2 Rearrangement (optional)	18q21.33