

<p><b>PATIENT INFORMATION</b> (PLEASE PRINT IN BLACK INK)</p> <hr/> <p>Last Name _____ First _____ MI _____</p> <hr/> <p>Address _____ Birth Date (MM/DD/YYYY) _____ Sex <input type="checkbox"/> M <input type="checkbox"/> F</p> <hr/> <p>City _____ SS # _____</p> <hr/> <p>State _____ Zip _____ Home Phone _____</p> <hr/> <p>Hospital/Physician Office Patient ID # _____ Accession # _____</p> <hr/> <p>MEDICAL NECESSITY NOTICE: When ordering tests for which Medicare reimbursement will be sought, physicians (or other individuals authorized by law to order tests) should only order tests that are medically necessary for the diagnosis or treatment of a patient, rather than for screening purposes.</p> <p><b>INSURANCE BILLING INFORMATION</b> (PLEASE ATTACH CARD OR PRINT IN BLACK INK)</p> <p><b>BILL TO:</b> <input type="checkbox"/> Client/Institution <input type="checkbox"/> Medicare <input type="checkbox"/> Insurance (Complete insurance information below) <input type="checkbox"/> Patient</p> <p><b>PATIENT STATUS:</b> <input type="checkbox"/> Inpatient <input type="checkbox"/> Outpatient <input type="checkbox"/> Non-Hospital Patient Hospital discharge date: ____/____/____ (MM/DD/YYYY)</p> <p><b>WORKERS COMP:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No DOI: _____</p> <p><b>PRIMARY:</b> <input type="checkbox"/> Medicare <input type="checkbox"/> Medicaid <input type="checkbox"/> Other Ins. _____ <input type="checkbox"/> Self <input type="checkbox"/> Spouse <input type="checkbox"/> Child</p> <hr/> <p>Subscriber Last Name _____ First _____ MI _____</p> <hr/> <p>Beneficiary / Member # _____ Group # _____</p> <hr/> <p>Claims Address _____ City _____ State _____ Zip _____</p> <p><b>SECONDARY:</b> <input type="checkbox"/> No <input type="checkbox"/> Yes (if yes, please attach) <b>ABN:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <hr/> <p><b>DIAGNOSIS CODE (REQUIRED)</b> ICD-10 Codes 1. _____ 2. _____ 3. _____</p> <hr/> <p><b>CLINICAL INFORMATION</b></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p><b>CLIENT INFORMATION</b></p> <hr/> <p><b>ORDERING PHYSICIAN CONTACT</b></p> <p>Physician Name _____</p> <p>Physician NPI# _____</p> <p>Physician Phone _____</p> <p>Physician Email _____</p> <p><input type="checkbox"/> Call results to phone number: (_____) _____</p> <p><input type="checkbox"/> Fax report to: (_____) _____</p> <hr/> <p><b>SPECIMEN INFORMATION</b></p> <p>Please indicate number of tubes, vials, slides, tissue blocks provided.</p> <p>Collection Date: ____/____/____ Time: _____ (MM/DD/YYYY)</p> <p>Body Site: _____ Specimen ID (#): _____</p> <p><input type="checkbox"/> Bone Marrow Biopsy*: Core _____ Clot _____ *Must Provide CBC/WBC Differential and Pathology Report</p> <p><input type="checkbox"/> Bone Marrow Aspirate: Green top(s) _____ Purple top(s) _____ Other _____</p> <p><input type="checkbox"/> Peripheral Blood: Green top(s) _____ Purple top(s) _____ Other _____</p> <p><input type="checkbox"/> Smears: Air dried _____ Fixed _____ Stained (type of stain) _____</p> <p><input type="checkbox"/> Fluids: CSF _____ Pleural _____ FNA _____ Other _____</p> <p><input type="checkbox"/> Fresh Tissue: Tumor _____ or Lymph Node _____</p> <p><input type="checkbox"/> Paraffin blocks: Tissue block(s) _____ Cell block(s) _____</p> <p><input type="checkbox"/> Slides: Unstained _____ Stained _____</p> <hr/> <p><input type="checkbox"/> <b>Comprehensive Primary Bone Marrow Diagnostic Analysis</b> (Hematopathologist Directed) Includes clinical history review, morphology/microscopy, flow cytometry, cytogenetic analysis &amp; summary report with correlation of all findings. May include FISH and/or molecular testing as medically necessary.</p>
<p><b>INDIVIDUAL DIAGNOSTIC TESTS</b></p> <p><b>FLOW CYTOMETRY</b></p> <p><input type="checkbox"/> Leukemia/Lymphoma Panel <b>RLLIIP</b></p> <p><input type="checkbox"/> Lymphoma Panel for Tissue/Fluid <b>RLLYMP</b></p> <p><input type="checkbox"/> PNH, High Sensitivity, FLAER, Peripheral Blood Only <b>PNHPNL</b></p> <p><b>CHROMOSOME ANALYSIS</b></p> <p>Chromosome Analysis, Bone Marrow</p> <p><input type="checkbox"/> Bone Marrow <b>CHRBMH</b></p> <p><input type="checkbox"/> Reflex to AML FISH <b>CHRAML</b></p> <p><input type="checkbox"/> Reflex to MDS FISH <b>CHRMDS</b></p> <p><input type="checkbox"/> Reflex to Microarray <b>BMCHF</b></p> <p>Cytogenetic Analysis</p> <p><input type="checkbox"/> Leukemic Blood <b>CHRBLL</b></p> <p><input type="checkbox"/> Solid Tumor <b>CHRSOL</b></p> <p><input type="checkbox"/> Neoplastic Tissue <b>CHRNPT</b></p> <p><b>FLUORESCENCE IN SITU HYBRIDIZATION (FISH)</b> (SEE BACK FOR OTHER FISH PROBES)</p> <p><input type="checkbox"/> FISH for Aggressive B-Cell Lymphoma <b>FABCFP</b></p> <p><input type="checkbox"/> FISH for AML Panel <b>FAMLPN</b></p> <p><input type="checkbox"/> FISH for B-ALL Panel <b>FSHBLL</b></p> <p><input type="checkbox"/> FISH for CLL Panel (peripheral blood only) <b>CLLFSH</b></p> <p><input type="checkbox"/> FISH for MDS Panel <b>FSHMDS</b></p> <p><input type="checkbox"/> FISH for MPN Panel <b>MPNF5H</b></p> <p><input type="checkbox"/> FISH for Myeloma Panel <b>FSHPCM</b></p> <p><input type="checkbox"/> <b>BCR/ABL1</b>, t(9;22) <b>BCRF5H</b></p> <p><input type="checkbox"/> <b>IGH/CCND1</b>, t(11;14) <b>FSHMCL</b></p> <p><input type="checkbox"/> <b>PML/RARA</b>, t(15;17) <b>APLFSH</b></p> <p><input type="checkbox"/> Other _____</p> <p><input type="checkbox"/> Other _____</p>	<p><b>MOLECULAR TESTING</b></p> <p><b>CC-SIGN® NEXT-GENERATION SEQUENCING PANELS</b></p> <p>PLEASE SELECT ONLY ONE NGS PANEL.*</p> <p>Acute Leukemia NGS Panel, 63-gene (DNA) and 107-gene (RNA)</p> <p><input type="checkbox"/> Marrow <b>HDMNGS</b></p> <p><input type="checkbox"/> Peripheral Blood <b>HDPNGS</b></p> <p><input type="checkbox"/> Other <b>HDONGS</b></p> <p>Chronic Myeloid NGS Panel, 56-gene (DNA)</p> <p><input type="checkbox"/> Marrow <b>MYNGSM</b></p> <p><input type="checkbox"/> Peripheral Blood <b>MYNGSP</b></p> <p><input type="checkbox"/> Other <b>MYNGSO</b></p> <p>Hematologic Neoplasm Fusion NGS Panel, 107-gene (RNA)**</p> <p><input type="checkbox"/> Marrow <b>HFNGS</b></p> <p><input type="checkbox"/> Peripheral Blood <b>HFPNGS</b></p> <p><input type="checkbox"/> Other <b>HFONGS</b></p> <p><b>AML/MDS</b></p> <p><input type="checkbox"/> <b>CEBPA</b> Mutation <b>CEBPA</b></p> <p><input type="checkbox"/> <b>FLT3</b> ITD/D835 Mutation <b>F3ITDM</b></p> <p><input type="checkbox"/> <b>NPM1</b> Mutation <b>NPM1</b></p> <p><b>CLL</b></p> <p><input type="checkbox"/> <b>IGVH</b> Sequencing <b>IGVH</b></p> <p><b>HEMOGLOBINOPATHY</b></p> <p><input type="checkbox"/> Alpha Thalassemia Gene Deletions <b>ATHALS</b></p> <p><b>LYMPHOMA</b></p> <p><input type="checkbox"/> B-Cell Clonality (<b>IGH</b> and <b>IGK</b> Gene Rearrangement) <b>BCBMD</b></p> <p><input type="checkbox"/> Immunoglobulin Heavy Chain (<b>IGH</b>) only <b>IGHM</b></p> <p><input type="checkbox"/> Immunoglobulin Kappa Chain (<b>IGK</b>) only <b>IGKM</b></p> <p>Chronic LPD NGS Panel, 7-gene (DNA)*</p> <p><input type="checkbox"/> Bone Marrow <b>LPNGS</b></p> <p><input type="checkbox"/> Peripheral Blood <b>LPPNGS</b></p> <p><input type="checkbox"/> Other <b>LPONGS</b></p> <p><input type="checkbox"/> <b>MYD88</b> L265P Mutation Detection <b>MYD88</b></p> <p><input type="checkbox"/> T-Cell Clonality (<b>TCRB</b> and <b>TCRG</b> Gene Rearrangement) <b>TCBMD</b></p> <p><input type="checkbox"/> T-Cell Receptor Beta (<b>TCRB</b>) only <b>TCBMDM</b></p> <p><input type="checkbox"/> T-Cell Receptor Gamma (<b>TCRG</b>) only <b>TCRGM</b></p> <p><b>MYELOPROLIFERATIVE NEOPLASMS</b></p> <p>MPN NGS Panel, 3-Gene (DNA)* – includes <b>JAK2</b>, <b>CALR</b>, <b>MPL</b></p> <p><input type="checkbox"/> Marrow <b>MPNM</b></p> <p><input type="checkbox"/> Peripheral Blood <b>MPNP</b></p> <p><input type="checkbox"/> <b>JAK2</b> V617F Mutation Detection <b>JAK2</b></p> <p><input type="checkbox"/> <b>JAK2</b> Exon 12-16 Sequencing <b>JAKNON</b></p> <p><input type="checkbox"/> Calreticulin (<b>CALR</b>) Exon 9 Mutation Analysis <b>CALR</b></p> <p><input type="checkbox"/> <b>MPL</b> Mutation Analysis <b>MPL</b></p> <p><input type="checkbox"/> <b>KIT</b> (D816V) Mutation <b>KITMST</b></p> <p><b>BCR/ABL1</b></p> <p><input type="checkbox"/> <b>BCR/ABL1</b>, Qualitative – includes p190 &amp; p210 <b>BCRQL</b></p> <p><input type="checkbox"/> <b>BCR/ABL1</b> p210, Quantitative <b>P210PB</b></p> <p><input type="checkbox"/> <b>BCR/ABL1</b> p190 RT-PCR, Quantitative <b>P190PB</b></p> <p><input type="checkbox"/> <b>BCR/ABL1</b> Kinase Domain Mutation Analysis <b>KINASE</b></p> <p><small>*NGS panels overlap; please order only one. Refer to the NGS Panel Table at the top of Page 2 for intended use. **For selected indications only; refer to Page 2 for intended use.</small></p>

## NEXT-GENERATION SEQUENCING (NGS) PANELS & INTENDED USE

Please order **only one** NGS panel at a time. For a full list of interrogated genes, please refer to the Test Directory on [clevelandcliniclabs.com](http://clevelandcliniclabs.com).

Panel Name	Order Code, (Specimen Type)	Intended Use	Gene Number (Variants Type)	Variants Detected
Acute Leukemia	<b>HDMNGS</b> (M) <b>HDPNGS</b> (PB) <b>HDONGS</b> (O)	Known or suspected <b>Acute Leukemias</b> (e.g. Acute Lymphoblastic Leukemia – ALL, Acute Myeloid Leukemia – AML, Acute Promyelocytic Leukemia – APL)	<b>63</b> (DNA) <b>107</b> (RNA)	<b>DNA:</b> SNVs, Insertions, Deletions <b>RNA:</b> Gene fusions, Structural Variants
<b>SUBPANELS</b>				
Chronic Myeloid	<b>MYNGSM</b> (M) <b>MYNGSP</b> (PB) <b>MYNGSO</b> (O)	Known or suspected <b>Chronic Myeloid Neoplasms</b> (e.g. MPNs, MDS)	<b>56</b> (DNA)	<b>DNA:</b> SNVs, Insertions, Deletions
Chronic LPD	<b>LPMNGS</b> (M) <b>LPPNGS</b> (PB) <b>LPONGS</b> (O)	Known or suspected <b>Chronic Lymphoproliferative Disorders</b> (LPDs)	<b>7</b> (DNA)	<b>DNA:</b> SNVs, Insertions, Deletions
MPN	<b>MPNM</b> (M) <b>MPNP</b> (PB)	Known or suspected <b>Myeloproliferative Neoplasms</b> (MPNs) – includes <i>JAK2</i> , <i>CALR</i> , <i>MPL</i>	<b>3</b> (DNA)	<b>DNA:</b> SNVs, Insertions, Deletions
Hematologic Neoplasm Fusion	<b>HFMNGS</b> (M) <b>HFPNGS</b> (PB) <b>HFONGS</b> (O)	<b>Fusion-Only Targeted Analysis</b> (e.g. <b>myeloid and lymphoid neoplasms</b> with eosinophilia and abnormalities of <i>PDGFRA</i> , <i>PDGFRB</i> or <i>FGFR1</i> ; <i>BCR-ABL1</i> -negative CML); or, <b>ALLs with insufficient specimen</b> for combined DNA & RNA NGS testing	<b>107</b> (RNA)	<b>RNA:</b> Gene fusions, Structural Variants

(M) = Marrow (PB) = Peripheral Blood (O) = Other: FFPE, Clot sections

SNV = Single Nucleotide Variant(s)

## FLUORESCENCE IN SITU HYBRIDIZATION (FISH) PANELS

Panel Name	Probes	Blood Order Code	Bone Marrow Order Code	Tissue Order Code
FISH for Acute Myeloid Leukemia	t(15;17), t(8;21), inv(16), KMT2A (MLL)	FAMLPN	FAMLPM	
FISH for Aggressive B-Cell Lymphoma	BCL2 (18q21), BCL6 (3q27), c-MYC (8q24) and (8;14)(q24;q32)	FABCFP	FABCBM	FABCEL
FISH for B Lymphoblastic Leukemia (B-ALL)	t(9;22), <i>KMT2A</i> (MLL), t(12;21), 4/10 cen, <i>CRLF2</i> , <i>CRLF2/IGH</i>	FSHLL	FSBLLM	
FISH for Chronic Lymphocytic Leukemia*	17p13 (TP53), 11q22 (ATM), 12 cen, 13q34 (D13S319, LAMP1), 11;14 (IgH/CCND1)	CLLFSH		
FISH for Myelodysplastic Syndrome	5q31 (EGR1), 7q31 (D7S486), 8 cen, 20q12 (D20S108)	FSHMDS	FSMDSM	
FISH for Myeloma**	13q, 17p, 1p/1q, CEP9/CEP15, IgH, IgH/CCND1 (11;14) <i>If an IgH translocation is present that is not IgH/CCND1, then will reflex to IgH/MMSET (4;14) and IgH/MAF (14;16).</i>	FSHPCM		
FISH for Myeloproliferative Neoplasms	t(9;22), 4q12 (PDGFRA), 5q33 (PDGFRB), 8p12 (FGFR1)	MPNFSH	MPNFSM	

\*Peripheral blood only \*\*Plasma cells only

## FISH PROBES (For a full list of FISH probes, please refer to the Test Directory on [clevelandcliniclabs.com](http://clevelandcliniclabs.com))

Test Name	Gene(s)	Location	Blood Order Code	Bone Marrow Order Code	Tissue Order Code
FISH for BCL2	<i>BCL2</i>	18q21	BCL2FH	BCL2FM	BCL2FT
FISH for BCL6	<i>BCL6</i>	3q27	BCL6FH	BCL6FM	BCL6FT
FISH for BCR/ABL1	<i>BCR/ABL1</i>	t(9;22)	BCRFSH	BCRFSM	
FISH for BIRC3/MALT1	<i>BIRC3/MALT1</i> ( <i>API2/MALT1</i> )	t(11;18)			T1118
FISH for CBFβ/MYH11	<i>CBFB</i>	inv(16)	INV16F	INV16M	
FISH for CCND1	<i>CCND1</i>	11q13	CCND1F	CCND1M	CCND1T
FISH for del (5q)	<i>EGR1</i>	5q31	5QFSH	5QFSBM	
FISH for del (7q)	<i>D7S486</i>	7q31	FISH7Q	FSH7QM	
FISH for DUSP22/IRF4	<i>DUSP22/IRF4</i>	6p25.3			DUIRFH
FISH for ETV6/RUNX1	<i>ETV6/RUNX1</i> ( <i>TEL/AML1</i> )	t(12;21)	1221FH	1221FM	
FISH for FGFR1	<i>FGFR1</i>	8p12	FGFR1F	FGFR1M	
FISH for IGH/BCL2	<i>IGH/BCL2</i>	t(14;18)	FSHFCL	FSFCLM	T1418
FISH for IGH/CCND1	<i>IGH/CCND1</i>	t(11;14)	FSHFCL	FSMCLM	T1114
FISH for IGH/MYC/CEP8	<i>IGH/MYC</i>	t(8;14)	814FSH	814FSM	T814
FISH for MALT1	<i>MALT1</i>	18q21			MALT1
FISH for MLL	<i>MLL</i>	11q23	MLLFSH	MLLFBM	
FISH for MYC(8q24)	<i>MYC</i>	8q24	MYCFSH	MYCFSM	MYC
FISH for PDGFRA	<i>PDGFRA</i>	4q12	PDGFRA	PGFRAM	
FISH for PDGRRB	<i>PDGRRB</i>	5q33	PDGFRB	PDGFBM	
FISH for PML/RARA	<i>PML/RARA</i>	t(15;17)	APLFSH	APLFBM	
FISH for RARA	<i>RARA</i>	17q21	RARFSH	RARFSM	
FISH for 8;21 Translocation for AML	<i>RUNX1/RUNX1T1</i> ( <i>AML1/ETO</i> )	t(8;21)	AMLFSH	AMLFBM	
FISH for Trisomy 4, 10	Trisomy 4/10	4 cen, 10 cen	FHT410	FT410M	
FISH for Trisomy 8, del(20q)	Trisomy 8/D20S108	8 cen, 20q12	20Q8FH	20Q8BM	
FISH for TP63	<i>TP63</i>	3q28			TP63FH