

### **Client Services**

TN: (800) 874-8532 fax: (615) 370-8074 AZ: (800) 710-1800 fax: (800) 481-4151 CT: (800) 447-5816 fax: (212) 698-9532

# **HEMATOPATHOLOGY**

oncology.labcorp.com

Highlighted fields are REQUIRED

CLIENT INFORMATION				MORPHOLOGIC	C EVALUATION (Tissue)	block with or without slides)	
ORDERING PHYSICIAN		NF	1#		consultation with diagnostic	Peripheral Blood Morphology	
TREATING PHYSICIAN		NPI#		stains and diagnos	stic/prognostic tests per LCO reverse) [bone marrow and	(CBC required)	
PHYSICIAN/AUTHORIZED SIGNATURE				tissue]	consultation with diagnostic		
Client#			stains (without dia	stains (without diagnostic/prognostic reflex tests)  Second opinion consultation (stained slides			
Client Name				without tissue bloc			
				FLOW CYTOME	TRY		
Address				reflex criteria (:	x/prognostic tests - per LCO see reverse) e Assessment n Deficiency Assessment ♦	□ BAL CD4:CD8 Assessment □ PNH ◆ □ Stem Cell Enumeration □ CLL MRD □ B- ALL MRD (meets COG requirements)	
Phone Number		Fax Numbe	er		CYTOMETRY (Technical Cona phenotyping (Blood, Bone Ma	Component; reflex criteria on reverse) urrow, or tissue samples)	
PATIENT INFORMATION				CYTOGENETIC:	S@		
Name (LAST, FIRST, MI):				☐ Cancer Cytogenetic	CS	☐ Constitutional Cytogenetics‡	
Date of Birth:		Sex:	☐ Male ☐ Female		ase state profile OR individu		
Address:				☐ ALL (Adult)	ALL (Pediatric)	☐ ALL (Philadelphia-like) ☐ CLL	
City, State, Zip:				☐ High Grade ☐ Multiple Myeloma ☐ AML		□ AML □ MDS	
Phone Number:				B-cell Lymphoma			
Med. Rec. # / Patient #:				Pediatric (COG) COG Single Probes	☐ ALL (Std Risk) ☐ AL	( )	
BILLING INFORMATION (	attach face sheet a	nd copy of insu	ance card – both sides)		a complete list of probes visit		
Bill:  My Account  Insurance Patient Hospital Status:  In-Polinsurance Information:  See	atient 🗆 Out attached Auth	-Patient orization # _	☐ Patient ☐ Workers Comp  ] Non-Patient  ONDARY BILLING PARTY	☐ BCR/ABL1, if neg re☐ CBFB (inv16)	eflex to JAK2 V617F Qual, If JAK2	H/BCL2, t(14;18)	
INSURANCE CARRIER	AKII	INSURANCE CARRIE			` '	MT2A (MLL; 11q23)	
ID #		ID #		☐ TRA/D (14q11.2)		/C (8q24)	
GROUP #		GROUP #		Other FISH, specify:			
				MOLECULAR IntelliGEN® NGS Assay (visit oncology.lobcorp.com/intelligen-myeloid for gene list, bone marrow or peripheral blood)			
INSURANCE ADDRESS		INSURANCE ADDRE		IntelliGEN® NGS Assay (visit oncology.laboorp.com/intelligen-myelola for gene list, bone marrow or penpneral blood)  ☐ IntelliGEN® NGS Assay Myeloid for AML, MDS, MPN			
NAME OF INSURED PERSON		NAME OF INSURED PERSON					
RELATIONSHIP TO PATIENT		RELATIONSHIP TO F	ATIENT	Indication:		- de la constant de l	
EMPLOYER NAME		EMPLOYER NAME			ALL, AML, CLL, MDS and other He	ed translocations, run cytogenetics and/or FISH ematologic Malignancies	
*IF MEDICAID STATE PHYSICIAN'S PROVI	DER #		WORKERS ☐ Yes ☐ No	indication:			
SPECIMEN INFORMATIO	N			☐ FISH + SNP Microa	rray for Multiple Myeloma 🗆	SNP Microarray for Multiple Myeloma	
Collection Date:	Time:		□ AM □ PM	If MM(FISH+SNP) i	s ordered, probes t(4; 14), t(11; 1	.4), t(14; 16) are performed	
Specimen ID #(s):				Acute Leukemia	Lymphoid Neoplasms	MPN/CML	
Body Site/ Descriptor:	al Farmanilia 🔲	Other:	Hause Fired.	☐ IDH1/2 Mutation☐ CEBPA Mutation	<ul><li>□ B-cell Rearrangement IGH/</li><li>□ T-cell Rearrangement TRG/TR</li></ul>		
Fixative: 10% Neutral Buffere Specimen Type:	a ronnann 🗀	Offier:	Hours Fixed: Smears:	□ NPM1 Mutation	☐ B-cell Rearrangement IGH		
□ BM Aspirate	☐ Fluid:		☐ Peripheral Blood #	□ PML/RARA	☐ B-cell Rearrangement IGK	☐ JAK2 V617F Mutation	
☐ BM Clot	☐ FNA:		☐ BM Touch Preps #	(Quantitative)	☐ T-cell Rearrangement TRG		
☐ BM Core	□ CSF		☐ BM Aspirate #	CKIT Mutation	T-cell Rearrangement TRB	•	
☐ Dry Tap	☐ Lymph Node:		☐ Effusion #/Source	- ☐ FLT3 Mutation ☐ LeukoStrat® CDx	☐ IGHV Mutation ☐ TP53 (B-cell Lymphoma and	☐ CALR ☐ JAK2 Exon 12-15	
☐ Peripheral Blood	☐ Slides #		☐ Fresh Tissue #/Site	FLT3 Mutation+	CLL ONLY)	☐ MPL 515	
If Slide Procurement required, indica	ite below:		·	1	☐ BRAF Mutation	☐ JAK2 Exon 12-15 Mutation	
Facility Name:				]	■ MYD88 Mutation	☐ MPL 515 Mutation	
Address:				<u> </u>		CALR Mutation	
Phone Number:		Fax Number:		]		☐ KIT D816V Mutation Digital PCR-Systemic Mastocytosis	
			al history and pathology reports)	☐ Other Molecular, sp	ooif.	T OR-Systemic Musicoylosis	
Narrative Diagnosis/Clinical Data (please	e include Pathology rep	port with diagnosis	s, indication for study, and previous test results):		,		
					ISTRY (Serum ONLY)		
				Multiple Myeloma Di	•	*Meets IMWG Guidelines	
	For pediatric pa	itients ONLY:	COG Study COG Post Treatment		` '	esis (SPE), Quant Free K/X Light Chains (sFLC)*	
All diagnoses should be provided by the	ordering physician o	or an authorized of	lesignee.	☐ 123200 Mutiple M	lyeloma Cascade, SPE Reflex to s	3IFE and sFLC	
Diagnosis/Signs/Symptoms in ICD-CM fo		e or service (High		Multiple Myeloma Me	onitoring:		
CD-CM	ICD-CM	home	ICD-CM	□ 001495 sIFE, SPE	□ 001487 SP	E □ 001685 sIFE	
□ Acute Lymphoblastic Leukemia       □ Hodgkin Lymphoma       □ Myelodysplastic Syndrome         □ B-cell       □ I-cell       □ Leukemia, Unspecified       □ Myeloproliferative Neoplasm         □ Acute Myeloid Leukemia       □ Leukopenia       □ Non-Hodgkin Lymphoma         □ Anemia       □ Lymphadenopathy       □ Suspected malignant neoplasm         □ Chronic Lymphocytic Leukemia       □ Myelomo, Plasma Cell       □ Thrombocytosis		pecified Inspecified	☐ Myeloproliferative Neoplasm ☐ Non-Hodgkin Lymphoma ☐ Polycythemia	□ 123218 sIFE DARZALEX® (daratumumab patients ONLY) □ 123062 sIFE SARCLISA® (isatuximab patients ONLY) □ 121137 sFLC, Quantitative Free Light K/λ Chains plus Ratio (isatuximab patients ONLY)			
		☐ Thrombocytopenia	♦ Peripheral blood only  *If sending DNA, the lab only accepts isolated or extracted nucleic acids for which extraction or isolation is performed in an appropriately qualified CLIA or CAP/CMS equivalent laboratory. +LeukoSTIN® CDX FLI3 Mutation performed by The Laboratory for Personalized Molecular Medicine (LabPMM®)				

		Test Reflex Guidelines		
Disease Category	Timing	Findings (Morphology, Flow cytometry, FISH and/or karyotyping)	Tests to Perform	
ALL	Initial Diagnosis	ALL	Pediatric FISH Profile (<= 18 yrs or up to 30 yrs if treated in pediatric oncology setting) or Adult FISH Profile (>18 years); Reveal® SNP Array	
AML	Initial Diagnosis	AML or borderline AML (MDS/AML)	Select AML Panel FISH probes, as indicated; NGS myeloid panel + FLTS and IDH1/2 testing	
AML	Relapse	Findings indicative of relapse	NGS myeloid panel	
CLL (peripheral blood/bone marrow)	Initial Diagnosis; Follow-up*	CD5+ neoplasm with classic or variant CLL features; features of refractory disease or disease progression/transformation#	CLL FISH profile, TP53 mutation analysis, ZAP70 panel assessment (ZAP70/CD38/CD49d¹ ZAP70/CD38 <sup>2</sup> )‡ and/or IGHV mutation analysis‡	
CML	Initial Diagnosis	Compatible or diagnostic findings for CML	FISH for BCR/ABL1 and/or RT-PCR Quantitative and cytogenetics	
CML	Follow-up*	Prior diagnosis of CML	Quantitative BCR/ABL1 assay; add ABL Kinase mutation analysis if features of progression, discuss addition of NGS myeloid panel with client or place comment in report	
MPN	Initial Diagnosis; Follow-up*	Morphologic features of MPN, but negative for JAK2 V617F, CALR, and MPL mutations; History of MPN with features of progression	NGS myeloid panel for patients	
MDS/MPN	Initial Diagnosis	Findings suspicious for MDS/MPN	NGS myeloid panel for patients	
MDS	Initial Diagnosis	Morphologic diagnosis of MDS	NGS myeloid panel for patients	
Plasma cell neoplasia	Initial Diagnosis; Follow-up*	Evidence of abnormal/monotypic plasma cells	Myeloma FISH profile	
SLL	Initial Diagnosis	SLL identified in tissue sample by flow cytometry with 5% or more neoplastic cells	CLL FISH profile	
B-cell lymphoma	Initial Diagnosis	Findings suspicious or diagnostic for B-cell lymphoma, but with equivocal findings with regard to subclassification	FISH probes from NHL FISH panel and molecular assays as indicated;	
Large B-cell lymphoma or Burkitt lymphoma	Initial Diagnosis	Abnormal B-cells diagnostic or suspicious for large B-cell lymphoma or Burkitt lymphoma	FISH probes for MYC, BCL6, and BCL2 translocations and cytogenetic karyotyping, as indicated; SNP micro-array to detect 11q abnormalities as needed	
Eosinophilia	Initial Diagnosis	Peripheral blood or bone marrow with increased eosinophils	FISH probes for PDGFRA (4q), PDGFRB (5q), FGFR1, JAK2	
Hairy Cell Leukemia (HCL)	Initial Diagnosis	Abnormal/monotypic B-cells with features indicating HCL in the differential diagnosis	BRAF mutation	
Lymphoplasmacytic Lymphoma (LPL)	Initial Diagnosis	Abnormal/monotypic B-cells with features indicating LPL in the differential diagnosis	MYD88 mutation	
Mantle cell lymphoma (MCL)	Initial Diagnosis	Abnormal/monotypic B-cells with features indicating MCL in the differential diagnosis	FISH probe for CCND1/IGH t(11;14), TP53 mutation analysis	
Mastocytosis	Initial Diagnosis	Atypical mast cells	High-sensitivity KIT D816V mutation analysis for mast cell disease	
T-cell lymphoma/leukemia	Initial Diagnosis	Atypical T-cells diagnostic or suspicious for T-cell lymphoma/leukemia	TCR gene rearrangement; ALK FISH probe for CD30+ cases, as indicated; cytogenetic karyotyping if material adequate; TRA/D (14q11.2) FISH, as indicated	

Testing may vary from this table depending on clinical and morphologic context.

- \* recommendation for follow-up evaluation requires that prior material was evaluated in an Labcorp Oncology (LCO) facility
- #ZAP70 and IGHV will not be performed on follow-up
- <sup>1</sup> AZ/TN <sup>2</sup> CT

Flow Cytometry*				
Leukemia/lymphoma phenotyping panel (peripheral blood/bone marrow) 24 ** antibodies CD2, CD3, CD4, CD5, CD7, CD8, CD10, CD11b, CD13, CD14, CD16, CD19, CD20, CD23, CD57, CD33, CD34, CD38, CD45, CD56, CD64, HLA-DR, kappa light chain, lambda light chain	Tissue/fluids panel 21 ** antibodies CD2, CD3, CD4, CD5, CD7, CD8, CD10, CD11b, CD19, CD20, CD23, CD30, CD38, CD43, CD45, CD56, CD57, FMC-7, HLA-DR, kappa light chain, lambda light chain	PNH Evaluation  CD14, CD15, CD24, CD45, CD64, FLAER.  CD59 and CD235a may be added at discretion of reviewing pathologist		

<sup>\*</sup>Additional antibodies may be added if determined to be medically necessary to render a diagnosis in the opinion of the reviewing pathologist.

<sup>®</sup>Antibodies performed determined by testing facility and may vary from the list above. Performed antibodies will appear in the patient report.

## Technical Component Flow Cytometry Reflex Criteria

Labcorp Oncology uses a 24 antibody panel for peripheral blood/bone marrow and a 21 antibody panel for tissue/fluids. If necessary, additional antibodies will be added based on the following reflex criteria. Additional CPT codes and associated charges will apply if reflex testing is performed.

- If submitted history of monoclonal gammopathy or if ≥0.5% plasma cells are detected cytoplasmic kappa and lambda light chains, and possibly CD138, will be added.
- If monoclonal/suspicious B-cells are present in blood or bone marrow samples, CD23, FMC-7, CD22, CD103, and CD11c will be added; if the atypical cells express CD103, CD25 will be added; if surface immunoglobulin light chains are absent, cKappa and cLambda may be added.
- If atypical T-lymphoblasts detected, CD1a, cCD3, cCD22, cCD79a, cMPO, and/or cTdT may be added.
- If ≥10% blasts are present, CD15, CD11c, CD25, cMPO, cTdT, cCD79a, cCD3, CD61, CD41, CD235a, and CD71 may be added.
- If atypical B-lymphoblasts are detected, cTdT, cCD22, cCD79a, cMPO, cCD3 and CD25 may be added.
- If atypical T-cells possibly representing T-cell lymphoma are detected, CD1a, CD1a, CD25, TCRAB, TRCGD, cTdT, CD30, CD52, cCD3, and CD103 may be added.
   If insufficient sample for a full study is received or atypical findings outside the above protocols.
- are detected, you will be contacted by an analyst in order to define a strategy for the case.

FISH (disease state profile OR individual probes)						
ALL (Adult) BCR/ABL1,1(9:22) KMT2A (MLL; 11q23) MYC (8q24) 6 21q ALL	ALL (Pediatric/Std Risk) BCR/ABL1,1(9,22) 4 10 17 KMT2A (MLL; 11q23) CDKN2A (p16)	AML PML/RARA, t(15:17) CBFB, inv(16) RUNX1T1/RUNX1, t(8:21) 5q 7q KMT2A (MLL)	CLL TP53 (17p-) ATM (11q-) CCND1/IGH, I(11;14) 13q14 (DLEU) 12	MPN/CML 20q 8 9 13q14 (DLEU) BCR/ABL1, t(9;22)	Multiple Myeloma Monosomy 13/13q- TP53 (17p-) 7 9 15 CCND1/IGH, t(11;14)	Individual Probes ALK (2p23) BCL6 (3q27) CCND1/IGH,1(11;14) IGH/BCL2,1(14;18) IGH/MYC,1(8;14) MALT1 (18q21)
(Philadelphia-like) CRIF2 ABL1 ABL2 JAK2 PDGFRB	TCF3 (E2A) ETV6/RUNX1,1(12:21)  ALL (High Risk) includes the above probes PLUS: ABL1 ABL2 PDGFRB	High grade B-cell Lymphoma BCL2 (18q21) BCL6 (3q27) MYC (8q24)	MDS 5q 7q 20q 8	MPN with Eosinophilia FGFR1 PDGFRA PDGFRB JAK2	CKS18 (1q21) FGF83/GH, (4;14) IGH/MAF, 1(14;16)	TRA/D (14q11.2) MYC (8q24) BCL2 (18q21)

#### SERUM - Multiple Myeloma Cascade, Protein Electrophoresis (SPE) reflex to Immunofixation (sIFE) and Free Light Chain (sFLC) for interpretation, refer to www.Labcorp.co.

### IntelliGEN® (for genes evaluated, refer to oncology.labcorp.com)

Lab Locations				
Accupath Dia	Esoterix Genetic Laboratories, LLC			
201 Summit View Drive, Suite 100 Brentwood, TN 37027	5005 South 40th Street Phoenix, AZ 85040	3 Forest Parkway Shelton, CT 06484		