

Hematopathology/Cytogenetics Test Request Form

Client Information (required)

Client Name		
Client Account No.		
Client Phone	Client Order No.	
Address		
City	State	Zip Code

Submitting Provider/Provider Name Information (required)

Submitting/Referring Provider <i>(Last, First)</i>
Fill in only if Call Back is required. Phone () _____ - _____ Fax* () _____ - _____
Provider's National I.D. (NPI)

**Fax number given must be from a fax machine that complies with applicable HIPAA regulation.*

Pathology/Clinical Diagnosis (required)

<i>(Include a brief history, pertinent laboratory results, suspected diagnosis, and reason for referral.)</i>
Bone marrow transplant: <input type="checkbox"/> Autologous <input type="checkbox"/> Allogeneic <input type="checkbox"/> Sex mis-match
Disease stage: <input type="checkbox"/> New diagnosis <input type="checkbox"/> Relapse <input type="checkbox"/> MRD
ICD-10 Diagnosis Code

Ship specimens to:

Mayo Medical Laboratories
3050 Superior Drive NW
Rochester, MN 55901

Customer Service: 855-516-8404

Visit www.MayoMedicalLaboratories.com for the most up-to-date test and shipping information.

Patient Information (required)

Patient ID <i>(Medical Record No.)</i>	
Patient Name <i>(Last, First, Middle)</i>	
Gender <input type="checkbox"/> Male <input type="checkbox"/> Female	Birth Date <i>(Month DD, YYYY)</i>
Collection Date <i>(Month DD, YYYY)</i>	Time <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.

Specimens Provided (required)

<input type="checkbox"/> Blood <input type="checkbox"/> Bone Marrow <input type="checkbox"/> Fixed Cells <input type="checkbox"/> Cultured Cells <input type="checkbox"/> DNA <input type="checkbox"/> Lymph Node <input type="checkbox"/> Spleen	<input type="checkbox"/> Paraffin block No. sent: Indicate source: <input type="checkbox"/> Slides No. sent:	<input type="checkbox"/> Tissue No. sent: <input type="checkbox"/> Frozen <input type="checkbox"/> Fixed Formalin <input type="checkbox"/> Wet Tissue <input type="checkbox"/> Other Fixative, type: <input type="checkbox"/> Other Anatomic site:
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Please submit pathology report

CBC results:		
HB _____	RBC _____	VBC _____
HCT _____	MCV _____	PLT _____

Pathologist's Name (required)

Submitting/Referring Pathologist <i>(Last, First)</i>
Phone () _____ - _____ Fax* () _____ - _____

**Fax number given must be from a fax machine that complies with applicable HIPAA regulation.*

MML Internal Use Only

Billing Information

- An itemized invoice will be sent each month.
- Payment terms are net 30 days.

Call the Business Office with billing related questions:
800-447-6424 (US and Canada)
507-266-5490 (outside the US)

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Hematopathology Consultation †

PATHC Pathology Consultation (submit stained slides and block)

HPWET Hematopathology Consultation, MML Embed (submit core biopsy, clot section and bone marrow aspirate)

HPCUT Hematopathology Consultation, Client Embed (submit bone marrow aspirate and embedded core biopsy and clot section)

Hematologic Disorders Hold Service

HOLDC Chromosome Hold

HOLDF FISH Hold

HLLFH Leukemia/Lymphoma Flow Hold*

EXHD DNA Extract and Hold

EXHR DNA and RNA Extract and Hold

Flow Cytometry

Leukemia/Lymphoma Immunophenotyping

LCMS Blood/Bone marrow*

LLPT Tissue

LLTOF Technical Only

MYEFL Myelodysplastic Syndrome by Flow Cytometry, Bone Marrow

PLINK PNH, PI-Linked Antigen, Blood

SZDIA Sezary Diagnostic Flow Cytometry, Blood

SZMON Sezary Monitoring Flow Cytometry, Blood

TAE Therapeutic Antibody by Flow Cytometry

Indicate antibody:

CD20 CD49d CD52

Chromosome Analysis

CHRBM Bone Marrow

CHRHB Hematologic Blood

CHRNL Lymphoid Tissue

CHRBF Body Fluid

BLOOM Sister Chromatid Exchange (SCE) for Bloom Syndrome

CRAT Rearrangement in Ataxia Telangiectasia, Blood

Next-Generation Sequencing (NGS)

NGAML NGS, Acute Myeloid Leukemia, 8-Gene Panel

NGSHM OncoHeme NGS Hematologic Neoplasms

NGSMM NGS, Multiple Myeloma

Chromosomal Microarray

CMAH Chromosomal Microarray, Hematologic Disorders

Mate Pair Targeted Rearrangement

MTRBM Blood/Bone Marrow

MTRTI Fresh Tissue

ACUTE MYELOID LEUKEMIA (AML)/ MYELODYSPLASTIC SYNDROME (MDS)

Acute Myeloid Leukemia (AML)

PMLR PML/RARA Quantitative, PCR

CEBPA CEBPA Mutations, Gene Sequencing

FLT FLT3 Mutation Analysis, Varies

NPM1 Nucleophosmin (NPM1) Mutation Analysis

KITE KIT Mutation Exons 8-11 and 17, Hematologic Neoplasms, Sequencing

AMLF Acute Myeloid Leukemia (AML), FISH

Must select probes listed below or entire panel

RUNX1T1/RUNX1 t(8;21)(q22;q22)
reflex: MECOM/RUNX1 t(3;21)(q26.2;q22)

PML/RARA t(15;17)(q24.1;q21.2)

MYH11/CBFB inv(16)(p13q22) or t(16;16)

DEK/NUP214 t(6;9)(p23;q34)

KAT6A/CREBBP t(8;16)(p11.2;p13.3)

MLL (KMT2A) BAP 11q23 rearrangement
reflex: AFF1/MLL t(4;11)(q21;q23)
reflex: MLLT4/MLL t(6;11)(q27;q23)
reflex: MLLT3/MLL t(9;11)(p22;q23)
reflex: MLLT10/MLL t(10;11)(p13;q23)
reflex: MLL/CREBBP t(11;16)(q23;p13.3)
reflex: MLL/MLLT1 t(11;19)(q23;p13.1)
reflex: MLL/ELL t(11;19)(q23;p13.1)

BCR/ABL1 t(9;22)(q34;q11.2)

MLF1/NPM1 t(3;5)(q25;q34)

RBM15/MKL1 t(1;22)(p13.3;q13.1)

RPN1/MECOM inv(3)(q21.3q26.2) or t(3;3)
reflex: PRDM16/RPN1 t(1;3)(p36.3;q21.3)
reflex: MECOM/RUNX1 t(3;21)(q26.2;q22)

D5S630/EGR1 -5/5q deletion

D7Z1/D7S486 -7/7q deletion

D8Z2/MYC +8

D13S319/LAMP1 13q deletion

TP53/D17Z1 -17/17p deletion

D20S108/20qter 20q deletion/ider(20q)

Perform entire panel

Myelodysplasia Syndromes (MDS)

MYEFL Myelodysplastic Syndrome by Flow Cytometry, Bone Marrow

PLINK PNH, PI-Linked Antigen, Blood

MDSF Myelodysplastic Syndrome (MDS), FISH

Must select probes listed below or entire panel

RPN1/MECOM inv(3) or t(3;3)
reflex: MECOM/RUNX1 t(3;21)(q26.2;q22)
reflex: PRDM16/RPN1 t(1;3)(p36.3;q21.3)

D5S630/EGR1 -5/5q deletion

D7Z1/D7S486 -7/7q deletion

D8Z2/MYC +8

D13S319/LAMP1 13q deletion

TP53/D17Z1 -17/17p deletion

D20S108/20qter 20q deletion/ider(20q)

MLL (KMT2A) BAP 11q23 rearrangement
reflex: AFF1/MLL t(4;11)(q21;q23)
reflex: MLLT4/MLL t(6;11)(q27;q23)
reflex: MLLT3/MLL t(9;11)(p22;q23)
reflex: MLLT10/MLL t(10;11)(p13;q23)
reflex: MLL/CREBBP t(11;16)(q23;p13.3)
reflex: MLL/MLLT1 t(11;19)(q23;p13.3)
reflex: MLL/ELL t(11;19)(q23;p13.1)

Perform entire panel

MSTF Myeloid Sarcoma, FISH, Tissue

Must select probes listed below or entire panel

RUNX1T1/RUNX1 t(8;21)(q22;q22)

BCR/ABL1 t(9;22)(q34;q11.2)

MLL (KMT2A) BAP 11q23 rearrangement

PML/RARA t(15;17)(q24.1;q21.2)

MYH11/CBFB inv(16)(p13q22) or t(16;16)

Perform entire panel

IMRGF Imatinib Mesylate Responsive Genes, FISH

Must select probes listed below or entire panel

ABL2 BAP 1q25 rearrangement

FIP1L1/CHIC2/ PDGFRA 4q12 deletion/rearrangement

PDGFRB BAP 5q33 rearrangement

ABL1 BAP 9q34 rearrangement

Perform entire panel

MYELOPROLIFERATIVE NEOPLASM (MPN)

BCR/ABL1 testing

BCRFX Qualitative Diagnostic with Reflex to p210 or p190 Quantitative

BADX mRNA Detection, RT-PCR, Qualitative Diagnostic*

BCRRAB p210 Quantitative Monitoring, CML

BA190 p190 Qualitative Monitoring

BAKDM Tyrosine Kinase Inhibitor Resistance, Kinase Domain Mutation Screen

922F BCR/ABL1 t(9;22), FISH

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JAK2-CALR-MPL-JAK2V617F testing

MPNR Myeloproliferative Neoplasm (MPN), JAK2 V617F with reflex to CALR and MPL

JAK2 V617F Mutation Detection

JAK2B Blood*

JAK2M Bone Marrow*

JAK2V Varies

CALR CALR Mutation Analysis, Myeloproliferative Neoplasm (MPN)*

MPL Exon 10 Mutation Detection

MPLB Blood*

MPLM Bone Marrow*

MPLVA Varies

MPNCM Myeloproliferative Neoplasm (MPN), CALR with Reflex to MPL

JAK2 Exon 12 and Other Non-V617F Mutation

JAKXB Blood*

JAKXM Varies

PVJAK Polycythemia Vera, JAK2 V617F with Reflex to JAK2 Exon 12-15, Sequencing for Erythrocytosis

CSF3R CSF3R Exon 14 and 17 Mutation Detection by Sanger Sequencing

CHICF CHIC2 (4q12) Deletion (FIP1L1 and PDGFRA Fusion), FISH

512F PDGFRB/TEL t(5;12) for Chronic Myelomonocytic Leukemia (CMML), FISH

FGFRF FGFR1 (8p11.2) Rearrangement, FISH

IMRGF Imatinib Mesylate Responsive Genes, FISH

Must select probes listed below or entire panel

ABL2 BAP 1q25 rearrangement

FIP1L1/CHIC2/PDGFR 4q12 deletion/rearrangement

PDGFRB BAP 5q33 rearrangement

ABL1 BAP 9q34 rearrangement

Perform entire panel

KIT Mutation testing

KIT Asp816Val Mutation Analysis

KITB Blood

KITBM Bone Marrow

KITAS Varies

KITE KIT Mutation Exons 8-11 and 17, Hematologic Neoplasms, Sequencing

T-Cell Receptor Gene Rearrangement, PCR

TCGR Blood

TCGBM Bone Marrow*

TCGRV Varies

MUR Lysozyme (Muramidase), Plasma

SZDIA Sezary Diagnostic Flow Cytometry, Blood

SZMON Sezary Monitoring Flow Cytometry, Blood

LYMPHOID DISORDERS

B-Cell

ALLM B-ALL Monitoring, MRD Detection, Bone Marrow

Immunoglobulin Gene Rearrangement

BCGR Blood

BCGBM Bone Marrow

BCGRV Varies

MYD88 MYD88, L265P, Somatic Gene Mutation, DNA Allele-Specific PCR

VISC Viscosity, Serum

BALLF B-Cell Acute Lymphoblastic Leukemia (B-ALL), FISH

Must select EITHER Individual Probes desired or -Diagnostic B-ALL Panel or -BCR-ABL1(Ph)-like ALL Panel or -BOTH Diagnostic and BCR-ABL(Ph)-like panels

Diagnostic Panel

PBX1/TCF3 t(1;19)(q23;p13.3)

ETV6/RUNX1 t(12;21)(p13;q22)

BCR/ABL1 t(9;22)(q34;q11.2)

MLL (KMT2A) BAP 11q23 rearrangement
reflex: AFF1/MLL t(4;11)(q21;q23)
reflex: MLLT4/MLL t(6;11)(q27;q23)
reflex: MLLT3/MLL t(9;11)(p22;q23)
reflex: MLLT10/MLL t(10;11)(p13;q23)
reflex: MLL/MLLT1 t(11;19)(q23;p13.3)
reflex: MLL/ELL t(11;19)(q23;p13.1)

CDKN2A/D9Z1 -9/9p deletion or +9

D4Z1/D10Z1/D17Z1 +4,+10,+17, hyper- or hypodiploidy

TP53/D17Z1 -17/17p deletion

IGH BAP 14q32 rearrangement
reflex: CRLF2/IGH t(X;14) or t(Y;14)

P2RY8 BAP t(Xp22.3;var) or t(Yp11.32;var)

Perform entire diagnostic panel

BCR-ABL1(Ph)-like Panel

ABL2 BAP 1q25rearrangement

PDGFRB BAP 5q33 rearrangement

JAK2 BAP 9p24.1 rearrangement

ABL1 BAP 9q34 rearrangement

CRLF2/IGH t(X;14) or t(Y;14)

P2RY8 BAP t(Xp22.3;var) or t(Yp11.32;var)

Perform entire BCR-ABL1(Ph)-like panel

Diagnostic+BCR-ABL1(Ph)-like Panels (includes probes listed above; reflex probes and ABL1 as needed)

BLPF B-Cell Lymphoma, FISH, Blood or Bone Marrow (includes fresh tissue)

BLYMF B-Cell Lymphoma, FISH, Tissue

Must select lymphoma subtype

Burkitt (pediatric)

Must select probes listed below or entire panel

MYC BAP 8q24.1 rearrangement

IGK/MYC t(2;8)(p12;q24.1)

MYC/IGH t(8;14)(q24.1;q32)

MYC/IGL t(8;22)(q24.1;q11.2)

BCL6 BAP 3q27 rearrangement

BCL2 BAP 18q21 rearrangement

Perform entire Burkitt panel

Diffuse large B-cell, Burkitt-like "double-hit"

Must select probes listed below or entire panel

MYC BAP 8q24.1 rearrangement
reflex: IGK/MYC t(2;8)(p12;q24.1)
reflex: MYC/IGH t(8;14)(q24.1;q32)
reflex: MYC/IGL t(8;22)(q24.1;q11.2)
reflex: BCL6 BAP 3q27 rearrangement
reflex: BCL2 BAP 18q21 rearrangement

Perform entire panel (MYC BAP, BCL6 and BCL2)

Follicular

Must select probes listed below or entire panel

BCL2 BAP 18q21 rearrangement

BCL6 BAP 3q27 rearrangement

Perform entire follicular panel

Mantle cell

Must select probes listed below or entire panel

CCND1/IGH t(11;14)(q13;q32)

CCND1 BAP reflex: 11q13 rearrangement

TP53/D17Z1 Blastoid subtype only: deletion of 17p

MYC BAP Blastoid subtype only: 8q24.1 rearrangement

Perform entire mantle cell panel

Mucosa-associated lymphoid tissue (MALT)

MALT1 BAP 18q21 rearrangement

Splenic marginal zone lymphoma (SMZL)

Must select probes listed below or entire panel

D7Z1/7q32 deletion 7q

TP53/D17Z1 deletion 17p

Perform entire SMZL panel

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Chronic Lymphocytic Leukemia (CLL)

- CLLMV CLL Monitoring, MRD Detection, Varies
- BCLL IGH for B-Cell Chronic Lymphocytic Leukemia (B-CLL), Somatic Hypermutation Analysis
- P53CA Hematologic Neoplasms, TP53 Somatic Mutation, DNA Sequencing Exons 4-9

- CLLF Chronic Lymphocytic Leukemia (CLL), FISH
- SLLF Small Lymphocytic Lymphoma, FISH, Tissue

Must select probes listed below or entire panel

- D6Z1/MYB -6/6q deletion
- D11Z1/ATM -11/11q deletion
- D12Z3/MDM2 +12
- D13S319/LAMP1 -13/13q deletion
- TP53/D17Z1 -17/17p deletion
- CCND1/IGH t(11;14)(q13;q32)
reflex: IGH/BCL2 t(14;18)(q32;q21)
reflex: IGH/BCL3 t(14;19)(q32;q13)

Perform entire panel

- IRF4F Cutaneous Anaplastic Large Cell Lymphoma, 6p25.3 (DUSP22 or IRF4) Rearrangement, FISH, Tissue

T-Cell

T-Cell Receptor Gene Rearrangement

- TCGR PCR, Blood
- TCGBM Bone Marrow*
- TCGRV Varies
- TP63F Peripheral T-Cell Lymphoma (PTCL), TP63 (3q28) Rearrangement, FISH, Tissue

- TALLF T-Cell Acute Lymphoblastic Leukemia (T-ALL), FISH

Must select probes listed below or entire panel

- BCR/ABL1 t(9;22) and ABL1 amplification
- MLL (KMT2A) BAP 11q23 rearrangement
reflex: AFF1/MLL t(4;11)(q21;q23)
reflex: MLLT4/MLL t(6;11)(q27;q23)
reflex: MLLT3/MLL t(9;11)(p22;q23)
reflex: MLLT10/MLL t(10;11)(p13;q23)
reflex: MLL/MLLT1 t(11;19)(q23;p13.3)
reflex: MLL/ELL t(11;19)(q23;p13.1)

Probe list continued in next column

T-ALL FISH probes (cont.)

- CDKN2A/D9Z1 -9/9p deletion or +9
- STIL/TAL1 1p33 rearrangement
- TLX3/BCL11B t(5;14)(q35;q32)
- TRB BAP 7q34 rearrangement
reflex: MYB/TRB t(6;7)(q23;q34)
reflex: TRB/TLX1 t(7;10)(q34;q24)
reflex: TRB/LMO1 t(7;11)(q34;p15)
reflex: TRB/LMO2 t(7;11)(q34;p13)
- MLLT10/PICALM t(10;11)(p12;q14)
- TRAD BAP 14q11.2 rearrangement
reflex: MYC/TRAD t(8;14)(q24.1;q11.2)
reflex: TLX1/TRAD t(10;14)(q24;q11.2)
reflex: LMO1/TRAD t(11;14)(p15;q11.2)
reflex: LMO2/TRAD t(11;14)(p13;q11.2)

Perform entire panel

- TLPF T-Cell Lymphoma, FISH, Blood or Bone Marrow
- TLYMF T-Cell Lymphoma, FISH, Tissue

Must select probes listed or entire panel

- TCL1A BAP 14q32 rearrangement
- D7Z1/D7S486 and D8Z2/MYC -7/iso(7q) and +8
- ALK BAP (tissue only) 2p23 rearrangement

Perform entire panel

MYELOMA, AMYLOIDOSIS & DYSPROTEINEMIA

Amyloid

- FABP Amyloid Beta-Protein
- AMPIP Amyloid Protein Identification, Paraffin, LC-MS/MS
- ATTRZ TTR Gene, Full Gene Analysis
- FMTT Familial Mutation, Targeted Testing
- TTRX Amyloidosis, Transthyretin-Associated Familial, Reflex, Blood
- FATAS Subcutaneous Fat Aspirate

Myeloma

- Is patient on CD38 Therapy? Yes No
- MSMRT Mayo Algorithmic Approach for Stratification of Myeloma and Risk-Adapted Therapy Report (mSMART)
 - PBLI Plasma Cell Assessment, Blood
 - PCPRO Plasma Cell DNA Content and Proliferation, Bone Marrow

- PCPDF Plasma Cell Proliferative Disorder (PCPD), FISH (bone marrow)
- MFCF Myeloma, FISH, Fixed Cells (fixed cell pellet only)
- PLASF Plasma Cell Proliferative Disorder, FISH, Tissue

Must select probes listed below or entire panel

- CCND1/IGH t(11;14)(q13;q32)/+11
- IGH BAP 14q32 rearrangement
reflex: IGH/MAF t(14;16)(q32;q23)
reflex: IGH/MAFB t(14;20)(q32;q12)
reflex: FGFR3/IGH t(4;14)(p16.3;q32)
reflex: CCND3/IGH t(6;14)(p21;q32)
- RB1/LAMP1 -13/13q deletion
- D3Z1/D7Z1 +3 and +7
- D9Z1/D15Z4 +9 and +15
- TP53/D17Z1 -17/17p deletion/+17
- TP73/1q22 1q gain
- MYC BAP 8q24 rearrangement

Perform entire panel

BONE MARROW TRANSPLANT

- ALLM B-ALL Monitoring, MRD Detection, Bone Marrow
- CHIDB Chimerism-Donor
- CHRGB Chimerism-Recipient Germline (Pre)
- CHIMU Chimerism Transplant No Cell Sort
- CHIMS Chimerism Transplant Sorted Cells
- CLLMV CLL Monitoring, MRD Detection, Varies
- DISI HLA Class I Molecular Typing Disease Association
- DIS2 HLA Class II Molecular Typing Disease Association
- BMTF XX/XY in Opposite Sex Bone Marrow Transplantation, FISH

MISCELLANEOUS

- ETVBF ETV6 (12p13.2) Rearrangement, FISH
- JAK2F JAK2 (9p24.1) Rearrangement for Hematologic Disorders, FISH

ADDITIONAL TESTS (INDICATE TEST CODE AND NAME)

BAP= break apart probes

*Algorithms are available online for these tests. Visit www.MayoMedicalLaboratories.com

† It is essential that the pathology/diagnostic report, brief history, and physician name and number are provided.

Patient information sheets are recommended-refer to the test catalog at www.mayomedicallaboratories.com