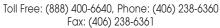


# Yellowstone Pathology Institute Interactive diagnostics

## IHC/Molecular Requisition Oncology Testing







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Client Information		Patient Information (Place patient information	ation label here or complete section)
		Patient Name (Last, First):	
		Date of Birth: MM/ DD/ Y	Sex: Male Female
		Medical Record #:	
		Social Security #:	
		Patient History/Treatment:	
			(Please attach all relevant clinical history)
Requisition completed by:		□ New Diagnosis □ Relapse □ In Remission	
Ordering Physician (please print):		See Attached Face Sheet for Patient Addre	ss Information
additional testing. Please call the phone	nen materials to Yellowstone Pathology Institute for number listed in the Client Information section with	Coding Information	
any questions. Thank you in advance for	your prompt attention in this matter.	Diagnosis Code/ICD-9 Code (required):	
Ordering Physician Signature:			
Collection Date://	Collection Time: AM PM	Billing Information	
Consisson Information		Bill to: Insurance Patient Physicia	
Specimen Information		*Please attach face sheet and front/back of p	
Customer Care will request specimen	0.	Patient Status (Choose 1): ☐ In-Patient ☐ C  Medicare Patient (Choose 1): ☐ Yes ☐ No	Dur-Patient   Non-Hospital Patient
	Location of Specimen:	Additional Comments:	
	State:	Additional Continents.	
Phone:			
Solid Tumor Test Menu  Breast Carcinoma  Invasive Breast Panel* (ER, PR, HER2 D-ISH)  Extended Breast Panel* (ER, PR, HER2 D-ISH, p53, Ki-67)	Colorectal Carcinoma  Mismatch Repair/Microsatellite Instability Evaluation BRAF Mutation Analysis* MSI (PCR)*	Gastric Carcinoma  ☐ HER2 (D-ISH)* ☐ NeoType" Gastric Tumor Profile* (BRAF, c-KIT, DNMT3A, EGFR, IDH1, IDH2, KRAS,	Lung Cancer  BRAF Mutation Analysis EGRR Mutation (PCR)* ALK (FISH)*
Breast Carcinoma  ☐ Invasive Breast Panel* (ER, PR, HER2 D-ISH) ☐ Extended Breast Panel*	☐ Mismatch Repair/Microsatellite Instability Evaluation ☐ BRAF Mutation Analysis*	☐ HER2 (D-ISH)* ☐ NeoType™ Gastric Tumor Profile*	☐ BRAF Mutation Analysis ☐ EGFR Mutation (PCR)*

#### <u>Specimen Requirements</u>

Keep specimen at ambient temperature and ship with cool pack. Please call Yellowstone Pathology Institute with any questions regarding specimen requirements or shipping instructions. 888-400-6640.



- Bone Marrow Core / 1-2 cm Minimum core length in 10% Neutral Buffered Formalin or FFPE Block Cassette.
- Bone Marrow Aspirate Clot / place in 10% Neutral Buffered Formalin or FFPE Block Cassette.

#### Flow Cytometry (Please provide recent CBC)

- Bone Marrow Aspirate / 1-2 mL minimum in EDTA (purple top) tube preferred. 1-2mL minimum in Sodium Heparin tube (green top) or ACDA (pale yellow / no gel separator) is acceptable. Please provide recent CBC report.
- Peripheral Blood / 1-2 mL minimum in EDTA tube (purple top) preferred. 1-2 mL minimum in Sodium Heparin tube (green top) or ACDA (pale yellow / no gel separator) is acceptable. Please provide recent CBC report.
- Bone Marrow Core / 1-2 cm minimum core length in RPMI.
- Fresh Tissue / Two pieces tissue 0.2 cm3 minimum in RPMI.
- Fluids & FNAs / Equal parts RPMI and specimen volume.

#### Cytogenetics

- Bone Marrow Aspirate / 1-2 mL Minimum in Sodium Heparin tube (green top).
- Must provide EDTA tube (purple top) in addition to Sodium Heparin tube (green top) when ordering AML Reflex.\*
- Peripheral Blood / 2-5 mL Minimum in Sodium Heparin tube
- Bone Marrow Core / 1-2 cm Minimum core length in RPMI.
- Fresh Tissue / Two pieces tissue 0.2 cm<sup>3</sup> Minimum in RPMI.
- Fluids / Equal parts of RPMI and specimen volume; FNAs / Minimum 5 mL RPMI with specimen.

#### **FISH**

- Bone Marrow Aspirate / 1-2 mL minimum in Sodium Heparin (green top) tube preferred. 1-2mL minimum in EDTA tube (purple top) is acceptable.
- Peripheral Blood / 2-5 mL minimum in Sodium Heparin (green top) tube preferred. 2-5 mL minimum in EDTA tube (purple top) is acceptable.
- Bone Marrow Core / 1-2 cm minimum core length in RPMI.
- Fresh Tissue / Two pieces tissue 0.2 cm3 minimum in RPMI.
- Fluids & FNAs / Equal parts RPMI and specimen volume.
- FFPE lymph node in block: Please provide block cassette plus 1 H&E cut at 4-5 microns. Area of interest must be circled on H&E when ordering tech-only FISH
- FFPE lymph node cut slides: 12 positively charged unstained slides plus 1 H&E cut at 4-5 microns. Area of interest must be circled on H&E when ordering tech-only FISH.

#### Molecular

- Bone Marrow Aspirate / 2mL in EDTA (purple top) tube.
  Peripheral Blood / 5mL in EDTA (purple top) tube.
  Fresh Tissue / Two pieces tissue 0.2cm<sup>3</sup> minimum in RPMI. Frozen tissue acceptable.
- FFPE lymph node in block: 1 H&E slide (required) plus block. • FFPE lymph node cut slides: 1 H&E slide (required) plus 5-10
- positively-charged unstained slides cut at 5 or more microns. Do not use zinc fixatives.

### **Test Descriptions and Notations**

#### Flow Cytometry

- YPI offers an adaptive and inclusive menu of markers which are selected for use depending on the sample type, sample volume, and clinical
- Our list includes but is not limited to: CD2, CD3, CD4, CD5, CD7, CD8, CD10, CD11b, CD11c, CD13, CD14, CD15, CD16, CD19, CD20, CD23, CD25, CD33, CD34, CD38, CD41, CD45, CD52, CD56, CD64, CD71, CD79a, CD79b, CD103, CD117, CD138, FMC-7, Glycophorin A, HLA-DR, Kappa, Lambda, TdT, MPO, alpha-beta, gamma-delta, lysozyme, and cytokeratin.
- ZAP-70 performed by IHC (soon to be performed by flow cytometry)

#### Cytogenetics

- Reflex to NeoTYPE Concise AML Prognostic Profile: Intermediate risk cytogenetics in AML, defined by SWOG/ECOG criteria as normal cytogenetics, +6, +8, -Y, or del(12p), will automatically reflex to molecular testing. Must provide EDTA tube (purple top) in addition to Sodium Heparin tube (green top) when ordering AML Reflex.
- NeoTYPE AML Prognostic: Concise Profile includes: CEBPA, DNMT3A, FLT3, IDH1, IDH2, NPM1, NRAS, interpretation.

• MM/MGUS & High Risk MM Panels: May include plasma cell enrichment on specimens of sufficient cellularity. Sample should be received at NeoGenomics Laboratories within 48 hours of collection

Disease State/Panel	FISH Probe(s)	
ALL	BCR/ABL1/ASS1 t(9;22), MLL (11q23)	
AML Extended	5q-/-5/+5, 7q-/-7, +8, MLL (11q23), RPN1/MECOM (3q), DEK/CAN t(6;9), ETV6 (12p13), 17p-	
AML Favorable Risk	CBFB (16q22), RUNX1/RUX1T1 (ETO/AML1) t(8;21), PML/RARA t(15;17)	
AML M2	RUNX1/RUX1T1 (ETO/AML1) t(8;21)	
AML M3 (APL)	PML/RARA t(15;17)	
AML M4	C8FB (16q22), MLL (11q23)	
AML Standard	5q-/-5/+5, 7q-/-7, +8/20q-/-20, MLL (11q23), RUNX1/RUX1T1 (ETO/AML1) t(8;21), PML/RARA t(15;17), CBFB (16q22)	
Anaplastic Large Cell Lymphoma	ALK for Lymphoma (2p23)	
Burkitt Lymphoma	MYC/lgH/Cen 8 t(8;14), MYC (8q24)	
CLL	6q- [SEC63 (6q21), MYB (6q23)], ATM (11q-); Trisomy 12 (Cen 12); 13q- (13q14, 13q34); CCND1/lgH t(11;14); p53 (17p-)	
CML	BCR/ABL1/ASS1 t(9;22)	
Eosinophilia	PDGFRa (4q12), PDGFRb (5q33), FGFR1 (8p12), CBFB (16q22)	
Follicular Lymphoma	IgH/BCL2 t(14;18)	
High-Grade/Large B-Cell Lymphoma	BCL6 (3q27), MYC (8q24), IgH/BCL2 t[14;18)	
High Risk MM	FGFR3/lgH † (4;14), lgH/MAF †(14;16), 13q-/-13, p53 (17p13.1)	
Mantle Cell Lymphoma	CCND1/lgH t(11;14)	
Marginal Zone B-Cell Lymphoma/ MALT Lymphoma	MALTI (18q21), API2/MALTI †(11;18)	
MDS Extended	5q-/-5/+5, 7q-/-7, +8/20q-/-20, MLL (11q23), RPN1/MECOM (3q), ETV6 (12p13), 17p-, +19	
MDS Standard	5q-/-5/+5, 7q-/-7, +8/20q-/-20, MLL (11q23)	
MM IgH Complex	CCND1/lgH t(11;14), FGFR3/lgH t(4;14), IgH/MAF t(14;16), Available separately: IgH/MAFB t(14/20).	
MM-MGUS	1q+, +3, +9, +5, 13q-/-13, IgH (14q32), p53 (17p13.1)	
NHL	ALK for Lymphoma (2p23), BCL6 (3q27), MYC (8q24), CCND1/IgH f(11;14), IgH (14q32), IgH/BCL2 f(14;18), MALT1 (18q21)	
Plasma Cell Myeloma Risk Stratification (IMWG)	FGFR3/lgH t[4;14), IgH/MAF t[14;16), IgH/MAFB t[14;20), 17p- (IP53, CEN 17), Chromosome 1	
XY	Cen X, DYZ1	

Panel configurations are updated periodically. Please check the NeoGenomics website for the most up-to-date information

#### **Molecular Genetics**

- BCR-ABL1 Reflex to ABL1: ABL1 Kinase Domain Mutation will be run when BCR-ABL1 is positive.
- JAK2 V617 Reflex to JAK2 Exon 12-14: Exon 12-14 will be run when V617F result is negative
- MPN Standard Reflex Panel: JAK2 V617F is run first. JAK2 Exon 12-14 will be run when V617F is negative. MPL will be run when JAK2 Exon 12-14 is negative

#### **NeoTYPE™ Profiles**

- NeoTYPE™ AML Prognostic Profile: CEBPA, DNMT3A, FLT3, IDH1 & IDH2, NPM1, RUNX1, WT1
- NeoTYPE™ Breast Tumor Profile: BRAF, c-KIT, EGFR, PIK3CA, PTEN FISH, PTEN Molecular, TP53, HER2 FISH)
- NeoTYPE™ CLL Prognostic Profile: CLL FISH Panel, IgVH, NOTCH1, SF3B1, ZAP-70 (FLOW)
- NeoTYPE™ Colorectal Tumor Profile: BRAF, c-KIT, DNMT3A, EGFR, IDH1, IDH2, KRAS, NRAS, PIK3CA, PTEN FISH, PTEN Molecular, TP53, MSI
- NeoTYPE™ Gastric Tumor Profile: BRAF, c-KIT, DNMT3A, EGFR, IDH1,IDH2, KRAS, NRAS, PIK3CA, PTEN FISH, PTEN Molecular, TP53, HER2 FISH
- NeoTYPE™ Lung Tumor Profile: BRAF, c-KIT, DNMT3A, EGFR, IDH1, IDH2, KRAS, NRAS, PIK3CA, PTEN FISH, PTEN Molecular, TP53, ALK FISH
- NeoTYPE™ Lymphoma Profile: BCL1, BCL2, CARD11, CD79B, MYD88, TP53
- NeoTYPE™ MDS/CMML Profile: ASXL1, CBL, EZH2, IDH1, IDH2, NRAS, PTPN11, RUNX1, SF3B1, SRSF2, TET2, TP53, U2AF1, ZRSR2
- NeoTYPE™ Spliceosome Mutation Profile: SF3B1, SRSF2, U2AF1, ZRSR2
- NeoTYPE™ Solid Tumor (Other) Profile: BRAF, DNMT3A, EGFR, IDH1, IDH2, KIT, KRAS, NRAS, PIK3CA, PTEN FISH, PTEN Mutation, TP53
- All tests may be ordered separately

#### NeoARRAY™ SNP/Cvtogenetic Profile - For detection of copy number variants and loss of heterozygosity or uniparental disomy

#### **Additional Billing Information**

Any organization referring specimens for testing services pursuant to this Requisition form ("Client") expressly agrees to the

- Third Party Billing by NeoGenomics and Yellowstone Pathology Institute, Inc. for Tests. NeoGenomics and Yellowstone Pathology Institute, Inc., shall, whenever possible and permitted by law, directly bill and collect from all insurers, health care service plans (e.g., health maintenance organizations), federal or state health care payment programs (including Medicare and Medicaid), and other third party payers (collectively, the "Third Party Payers"), for all testing services ordered from NeoGenomics and Yellowstone Pathology Institute, Inc pursuant to this Requisition Form ("Services"). Client agrees that NeoGenomics and Yellowstone Pathology Institute, Inc shall be responsible for billing (i) the professional component of all Services to Medicare, and (ii) global Services to any and all commercial insurance payers unless NeoGenomics and Yellowstone Pathology Institute, Inc and Client agree otherwise for certain insurance payers due to contractual limitations or in other mutually agreed upon special situations. Client further agrees that, except for those tests or portions of tests which should be billed back to Client as described below (Client Billing for Certain Tests), Client will indicate on the Requisition Form that NeoGenomics and Yellowstone Pathology Institute, Inc should bill the appropriate Third Party Payer directly for any such tests or portions of tests, and will provide NeoGenomics and Yellowstone Pathology Institute, Inc all Billing Information necessary to bill Third Party Payers for the professional component Services ordered even if the technical component Services are to be billed back to the Client.
- Right to Bill Client in the Event that Billing Information is Not Provided or in the Case of Uninsured Patients. In the event NeoGenomics does not receive the Billing Information required for it to bill any Third Party-Billed Tests within ten (10) days of the date that any such test is reported by NeoGenomics or the tests were performed for patients that have no Third Party Payer coverage arrangements, NeoGenomics shall have the right to bill such tests to Client. In the event that Client subsequently provides NeoGenomics with Billing Information for such tests before paying the related invoice, then Client may pay the invoiced amount less any amounts for tests in which Billing Information was subsequently provided.

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Comm	non ICD-9 Codes
201.90	Hodgkin's Disease, Unspecified
202.80	Non-Hodgkin's Lymphoma
203.00	Multiple Myeloma
203.10	Plasma Cell Leukemia
204.00	Acute Lymphoid Leukemia (ALL)
204.10	Chronic Lymphocytic Leukemia (CLL)
205.00	Acute Myeloid Leukemia (AML)
205.10	Chronic Myeloid Leukemia (CML)
205.80	Other Myeloid Leukemia
208.00	Leukemia, Acute NEC
208.10	Leukemia, Chronic NEC
238.71	Thrombocythemia
238.75	Myelodysplastic Syndrome, Unspecified
273.1	Monoclonal Gammopathy
284.1	Pancytopenia
285.9	Anemia
287.5	Thrombocytopenia
288.00	Neutropenia, Unspecified
288.50	Leukopenia
288.60	Leukocytosis
511.9	Pleural Effusion
784.2	Swelling of Mass in Head or Neck

