

**Department of Clinical Laboratory Genetics**  
**Genome Diagnostics & Cancer Cytogenetics**  
**Malignant Hematology Testing**



**Toronto General Hospital**

Eaton Wing 11-444, 200 Elizabeth Street  
Toronto, Ontario M5G 2C4

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Email: [Genome.diagnostics@uhn.ca](mailto:Genome.diagnostics@uhn.ca)

[cancercytogenetics@uhn.ca](mailto:cancercytogenetics@uhn.ca)

Hours of Operation (Mon-Fri) 8:30AM-4:30PM

CAP: 7175217 CLIA: 99D1106115 IQMH: 4204-site 0141

**Patient Information or Hospital Stamp Here**

Last Name:

First Name:

Date of Birth (MM/DD/YYYY):

Sex:

Health Card #:

Hospital #:

**Instructions:**

**THIS REQ IS FOR MALIGNANT HEMATOLOGY TESTING ONLY – see link at bottom of page for SOLID TUMOUR and HEREDITARY requisitions.**

1. Complete all information as requested
2. Send requisition with specimen to address above  
– **DO NOT COME TO TORONTO GENERAL FOR BLOOD DRAW**
3. Keep specimen at room temperature unless frozen
4. If shipping, send same day or next day delivery
5. Specimen labelling: **Name, DOB, MRN#, Date Taken**

**Information For Reporting:**

Full Name of Referring Physician  
Physician Billing #  
Hospital/Address:

Phone:

Fax:

Physician Signature: \_\_\_\_\_

Copy Report To: \_\_\_\_\_

**Specimen Requirements – Genome Diagnostics:**

**Peripheral blood**

For leukemia/lymphoma - **20 mL in EDTA**  
For circulating tumour (cell free DNA) - **18 ml in STRECK tubes**  
For all other testing - **5ml in EDTA**

**Bone marrow aspirate**

**1-2 ml in EDTA**

**Extracted DNA or RNA (>1µg)** (please circle nucleic acid)

Tissue Source: \_\_\_\_\_  
Concentration: \_\_\_\_\_ Volume: \_\_\_\_\_

**Extracted nucleic acid will only be accepted from an appropriately accredited laboratory (ex. IQMH or equivalent).**

**Specimen Requirements – Cytogenetics (Page 3):**

**Bone marrow aspirate**  
>1.5 ml in **sodium heparin**

**Peripheral blood**  
5-10 ml in **sodium heparin**

**Paraffin Embedded Tissue (FISH)**

-include circled H&E  
-2 x 4µm sections/probe on positively charged slides,  
air dried

**Cytology preparation (FISH)**

-Air-dried smear/touch prep (1-2 per test)  
-Cytospin slide (1-2 per test)

***N.B. Currently, decalcified specimens cannot be reported clinically.***

Please ensure that you are using an updated copy of this requisition available at:

[https://www.uhn.ca/Labs/Pages/services\\_physicians.aspx](https://www.uhn.ca/Labs/Pages/services_physicians.aspx)

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Sex: \_\_\_\_\_

Health Card #: \_\_\_\_\_

Hospital #: \_\_\_\_\_

**Clinical Diagnosis/Reason for Referral:**

**Referral:**

**Diagnosis:** \_\_\_\_\_

**Monitoring:** (for follow-up samples)

Treatment (specify type) \_\_\_\_\_

**Other:** \_\_\_\_\_

Date of last treatment \_\_\_\_\_

**Genome Diagnostics Tests - Hematological**

**Leukemia:**

- ^BCR::ABL1 t(9;22)  
Please indicate if known – CML or ALL
- ^ABL1 kinase domain mutation –  
Please indicate breakpoint if known – p210 or p190
- ^RUNX1::RUNX1T1 (AML/ETO) t(8;21)
- ^CBFB::MYH11 Inv(16) or t(16;16)
- ^PML::RARA t(15;17)
- FLT3/NPM1 (newly diagnosed AML)
- FLT3 only (relapsed/refractory AML)
- ^ NPM1 MRD (4bp insertion between nucleotide 863 and 864 only)
- CLL - IGHV Somatic Hypermutation/TP53 (for patients requiring treatment only)

**Malignant Hematology NGS panel:**

Funded for AML, MPN, MDS, and MDS/MPN. Please provide supporting documentation for testing. If molecular profiling was previously performed at another institution, please provide molecular results.

**Comprehensive Sequencing (NGS)**, includes:

ASXL1	CUX1	GNAS	KRAS	PTPN11	TP53
BCOR	DDX41	IDH1	MPL	RAD21	U2AF1
BCORL1	DNMT3A	IDH2	MYD88	RUNX1	WT1
BRAF	ETNK1	IKZF1	NOTCH1	SETBP1	ZRSR2
CALR	ETV6	IRF1	NPM1	SF3B1	
CBL	EZH2	JAK1	NRAS	SH2B3	
CEBPA	FBXW7	JAK2	PAX5	SRSF2	
CSF3R	FLT3	KIT	PHF6	STAG2	
CTNNA1	GATA2	KMT2A	PPM1D	TET2	

**Lymphoma: please attach corresponding pathology report**

- ^B-cell Clonality
- ^T-cell Clonality
- ^MYD88

**Bone marrow/Stem cell transplant monitoring :**

^15 STRs and amelogenin XY loci

**Please specify:**

- Donor
- Recipient Pre-SCT
- Recipient Post-SCT (Split Chimerism)

**Other:**

- ^BRAF (p.V600E/K only) (please select: Hairy cell leukemia, Langerhans cell histiocytosis, Erdheim-Chester)
- ^KIT (Mastocytosis - BM or involved tissue preferred)
- ^JAK2 (Exon 12 + Exon 14 p.V617F) / CALR (MPD)

**Identity Testing (15 STRs and amelogenin XY loci):**

^Specimen matching (Please provide control specimen, specimen in question and details)

^Indicates a test that will be billed to the referring hospital, laboratory, physician or medical group.

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**A bone marrow report must accompany or be sent by fax/email for all bone marrow samples.  
All samples will be banked and testing delayed until this information is received.**

**Clinical Diagnosis/Reason for Referral:** \_\_\_\_\_

Treatment (specify type) \_\_\_\_\_

**Diagnosis:** \_\_\_\_\_

Date of last treatment \_\_\_\_\_

**Monitoring:** (for follow-up samples)

**Other:** \_\_\_\_\_

**G-Banded Karyotyping**

**Bone Marrow (required sample >1.5mL in sodium heparin tube).**

^G-banded karyotyping on bone marrow.

**Peripheral blood. (required sample 5-10 mL blood in sodium heparin). ONLY PROCESSED FOR:**

^G-banded karyotyping for acute leukemia with peripheral blood blast count >20% (marrow inadequate)

^G-banded karyotyping for Myelofibrosis

^G-banded karyotyping to confirm a constitutional abnormality detected on bone marrow karyotype

Other - **REQUIRES LABORATORY APPROVAL** – email [cancercytogenetics@uhn.ca](mailto:cancercytogenetics@uhn.ca)

**Optical Genome Mapping**

**Eosinophilia Panel (B/M) – Peripheral Blood or Bone Marrow with Elevated Eosinophils (≥ 10% nucleated cells)**

PDGFRA / PDGFRB / FGFR1 / PCM1 / JAK2 / ABL1 / ETV6 / FLT3 (*expanded gene panel*)

**Fluorescence *in situ* Hybridization (FISH)**

**Chronic Myelogenous Leukemia (B/M)**

^BCR::ABL1 (only for molecular negative)

**FISH for Plasma Cell Neoplasms**

**Plasma Cell Neoplasms with CD138 Cell Enrichment  
(Magnetic separation requires ≥ 1mL marrow aspirate.  
If other tests are requested, e.g. karyotype, please  
submit an additional 1.5-2mL of aspirate in a separate  
tube.) (M)**

^Multiple Myeloma Panel (or Amyloidosis)

**FISH for Lymphoid Disorders**

**Chronic Lymphocytic Leukemia (B/M)**

^CLL FISH Panel (WBC > 5x10<sup>9</sup> cells/mL)

diagnostic

follow up

**FISH for Lymphoid Disorders (continued)**

**Large B-Cell Lymphoma Panel (B/M/C/P)**

^Reflex Panel (BCL2 and BCL6 only when MYC Positive)

**Burkitt Lymphoma (B/M/C/P)**

^MYC ONLY

**Follicular lymphoma / DLBCL (B/M/C/P)**

^IGH/BCL2 t(14;18)(q32;q21)

^BCL6

**Anaplastic large cell lymphoma (B/M/P)**

^ALK

**MALT lymphoma (B/M/C/P)**

^MALT1

**Mantle cell lymphoma (B/M/C/P)**

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

Indicates FISH validation status by sample type: **B** = Blood, **M** = Marrow, **P** = Paraffin (surgical or cytology slides), **C** = Cytospin

^ indicates a test that will be billed to the referring hospital, laboratory, physician or medical group.