

CANCER GENETICS AND GENOMICS LABORATORY

MYELOID TESTING



BC CANCER 604-877-6000 EXT 67-2094
 DEPT. OF PATHOLOGY AND LABORATORY MEDICINE FAX: 604-877-6294
 ROOM 3307 - 600 WEST 10TH AVENUE MON-FRI 8:30AM-4:30PM
 VANCOUVER BC V5Z-4E6 WWW.CANCERGENETICSLAB.CA
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CANCER GENETICS LAB
 SHIRE LABEL USE ONLY

PATIENT INFORMATION					REQUESTING PHYSICIAN			
Last Name		First and Middle Names			Name		MSP	
Date of Birth (dd/mmm/yyyy)		Gender Male Female X Unknown			Phone		Fax	
PHN		BC Cancer ID		Cerner MRN	Address			
SPECIMEN					NOTE: PHYSICIAN SIGNATURE REQUIRED (BELOW)			
Specimen Type PB BM Aspirate MAA (PB BM) Other _____		Originating Hospital		Collection Date (dd/mmm/yyyy) and Time	COPY PHYSICIANS (ALL INFORMATION IS NECESSARY)			
		Referring Lab/Hospital Sample ID		Important: Myeloid Panel may detect variants associated with hereditary conditions	Name		MSP	
REASON FOR TESTING / DIAGNOSIS / CLINICAL HISTORY (REQUIRED FOR TEST TO PROCEED)					Address			
					Name		MSP	
					Address			
SEE PAGE 2 FOR ACCEPTED SAMPLE TYPES		CYTOGENETICS (FISH, KARYOTYPE)		MOLECULAR				
MYELOID	Acute Myeloid Leukemia		2 BM specimens required: Karyotype (BM in media) / OGM (BM in EDTA) FISH (specify probes): _____		New Diagnosis		All 3 specimens required prior to initiation of therapy: Myeloid Panel / Rapid AML Mutation Panel (BM in EDTA for DNA) MRD Baseline (BM in EDTA for RNA) MRD Baseline (PB in EDTA for RNA)	
	Acute Promyelocytic Leukemia		<i>PML::RARA</i> t(15;17) FISH 2 BM specimens required: Karyotype (BM in media) / OGM (BM in EDTA)		MRD Monitoring		t(8;21) inv(16)/t(16;16) <i>NPM1</i> **Restricted to patients being treated with intensive chemo and/or eligible for HSCT **	
	Chronic Myeloid Leukemia		<i>BCR::ABL1</i> t(9;22) FISH 2 BM specimens required: Karyotype (BM in media) / OGM (BM in EDTA)		Relapsed / Refractory		<i>FLT3</i> ITD & TKD	
	Mast cell disease						<i>KIT</i> D816V/F	
	Myelodysplastic Syndrome		2 BM specimens required: Karyotype (BM in media) / OGM (BM in EDTA)		Myeloid Panel (BM only) See CGL website for eligibility criteria BM and cytogenetic report required to activate myeloid panel		MRD Baseline MRD Monitor query APL	
	Myeloproliferative Neoplasm		<i>BCR::ABL1</i> t(9;22) FISH 2 BM specimens required: (MF, CMML only) Karyotype (BM in media) / OGM (BM in EDTA)		Single-Gene		query <i>JAK2</i> V617F MPN	
	Myeloproliferative Neoplasm				Myeloid panel (BM only) BM report required to activate myeloid panel		query <i>JAK2</i> V617F negative MPN query <i>JAK2</i> V617F positive MF (LEUK/BMT Physicians only)	
VEXAS Syndrome				<i>UBA1</i> mutation screen (restricted to hematology and rheumatology)				
OTHER	Chimerism				Pre-transplant: Donor Recipient		Post-transplant	
	Neoplasm with Eosinophilia		FISH Panel					
	Multiple Myeloma		FISH Panel (BM in media)		Clonotype determination (new diagnosis of Transplant Eligible Multiple Myeloma only)			
PHYSICIAN SIGNATURE (REQUIRED)					DATE			
LAB USE ONLY		PB NaHEP	PB EDTA	BM EDTA	BM Media	Other		



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ACCEPTED SAMPLE TYPES FOR EACH TEST REQUEST

- Additional information and shipping information found on the Cancer Genetics and Genomics Laboratory website: <https://cancer geneticslab.ca/guidelines/specimens/>
- Separate tubes are required for each test requested with different extraction methods (e.g. If FLT3 (DNA), MRD baseline (RNA) and cytogenetics are requested; three tubes of each sample should be collected)

<h2 style="margin: 0;">CYTOGENETICS</h2> <p style="margin: 0;">(FISH, KARYOTYPE)</p>			PB	BM		MAA
			NAHEP	MEDIA TUBE	EDTA	PB / BM
MYELOID	Acute Myeloid Leukemia	FISH	6ml	2 x 1ml	1ml	✓
	Acute Promyelocytic Leukemia	Karyotype *		2 x 1ml		✓
	Chronic Myelogenous Leukemia	OGM (Optical Genome Mapping)			1ml	
OTHER	Myeloproliferative Neoplasm					
	Myelodysplastic Syndrome					
	Neoplasm with Eosinophilia	FISH panel	6ml	2 x 1ml	1ml	✓
	Multiple Myeloma	FISH Panel		2 x 1ml		

*Karyotype analysis will be performed as a second- tier test in the event OGM fails or a BM in EDTA is not received for OGM

<h2 style="margin: 0;">MOLECULAR</h2> <p style="margin: 0;">(DNA, RNA)</p>				EXTRACTION	PB	BM	MAA
					EDTA	EDTA	PB / BM
MYELOID	Acute Myeloid Leukemia	New Diagnosis (all required)	Myeloid Panel AND Rapid Mutation Panel	DNA		0.5ml	✓
			MRD Baseline - BM	RNA		0.5ml	✓
			MRD Baseline - PB	RNA	20ml		✓
		MRD Monitoring	t(8;21) inv(16)/t(16;16) <i>NPM1</i>	RNA	20ml	0.5ml	✓
			Relapsed/Refractory	<i>FLT3</i> ITD & TKD	DNA	6ml	0.5ml
		Acute Promyelocytic Leukemia	MRD Baseline / Monitor	RNA	20ml	0.5ml	✓
		Chronic Myelogenous Leukemia	MRD Baseline / Monitor Kinase Domain	RNA	20ml	0.5ml	✓
		Mast Cell Disease	<i>KIT</i> D816V/F	DNA	6ml	0.5ml	✓
		Myelodysplastic Syndrome	Myeloid Panel	DNA		0.5ml	
		Myeloproliferative Neoplasm	Single-gene testing query <i>JAK2</i> V617F MPN	DNA	6ml	0.5ml	✓
	VEXAS	UBA1 mutation screen	DNA	6ml	0.5ml		
OTHER	Chimerism	Pre-transplant assessment	DNA	6ml			
		Post-transplant assessment (sample processed at Stem Cell Lab)	DNA	20 mL NaHeP @Stem Cell Lab			
		Multiple Myeloma	Clonotype determination	DNA		2ml	