

Test Name (Test Code)	Specimen(s)	Volume (min.)	Anticoag. / medium Preferred (accepted)	Storage	Stability	Shipping	Special Instructions
HEMATOLOGY/ONCOLOGY							
Flow Cytometry							
Comprehensive leukemia/lymphomas analysis and limited flow analysis	Whole blood	4mL (1mL)	Sodium Heparin (EDTA)	RT	48hrs	Ambient	Protect from extreme temperature.
	Bone marrow aspirate	2mL (0.5mL)					
	BM core biopsy	2cm (1cm)	MPLN transport medium or equivalent (i.e. RPMI, Hanks) (2.0-4.0mL)	4°C	48hrs	Ice pack	Separate ice pack from specimen.
	Fresh tissue	5mm ³					
	Fine needle aspirate	Adequate sample					
Fluids, CSF, pleural, synovial, pericardial, etc. fluids	4mL (0.5mL)	Sterile container	4°C	48hrs	Ice pack	Separate ice pack from specimen.	
T-cell and extended lymphocyte profile subset analysis.	Whole blood	4mL (1mL)	Sodium Heparin (EDTA)	RT	48hrs	Ambient	Protect from extreme temperature.
Leukocyte adhesion deficiency Paroxysmal nocturnal hemoglobinuria ZAP-70	Whole blood	5mL (0.5mL)	Sodium Heparin (EDTA)	RT	48hrs	Ambient	Protect from extreme temperature.
	Bone marrow	1mL (0.5mL)					
Bronchoalveolar lavage lymphocyte subsets	Bronchoalveolar lavage	10mL (5mL)	Sterile container	4°C	48hrs	Ice pack	Separate ice pack from specimen.
Cell Cycle Analysis; DNA Ploidy and S-phase	Whole blood	4mL (2mL)	Sodium Heparin (EDTA, ACD)	RT	48hrs	Ambient	
	Bone marrow	3mL (1mL)					
	Fresh tissue	5mm ³	MPLN transport medium or equivalent (i.e. RPMI, Hanks)	4°C	72hrs	Ice pack	Separate ice pack from specimen.
	Frozen tissue	5mm ³		-20°C	~	Dry ice	Freeze immediately.
	Paraffin embedded tissue	Block	Formalin fixed	RT	Indefinite	Ambient	
	Bladder washing / barbotage	30mL (15mL)	Sterile container	4°C	48hrs	Ice pack	Separate ice pack from specimen.
Immunohistochemistry and Pathology							
Immunohistochemistry markers including breast prognostics	Paraffin embedded tissue	Block	Formalin fixed.	RT	Indefinite	Ambient	If external temperature exceeds 55°C, include ice pack during shipping.

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Bone marrow pathology evaluation All specimens listed are required	Bone marrow core biopsy	1cm	Formalin	RT	48hrs	Ambient	Use Hematopathology collection kit and include CBC report.
	Bone marrow aspirate clot	5mm ³	Formalin				
	Bone marrow aspirate	4mL (0.5mL)	Sodium Heparin preferred for flow cytometry and cytogenetics; EDTA for molecular studies				
	Bone marrow aspirate smear (with spicules)	4-6 slides	Air dried				
	Peripheral blood smear	1 slide	Air dried				
Molecular Oncology							
ABL kinase mutation analysis for Gleevec™ resistance	Whole blood	10mL (9mL)	EDTA	4°C	36hrs	Ice pack	If low WBC count, please send additional tubes.
	Bone marrow	5mL (2.5mL)					
B-cell immunoglobulin heavy chain gene rearrangement by PCR B cell immunoglobulin kappa light chain gene rearrangement BCL2 t(14;18) gene rearrangement by PCR T cell receptor gamma gene rearrangement by PCR	Whole blood	5.0mL (3.0mL)	EDTA	RT	72hrs	Ice pack	Do not allow the ice pack to directly contact the sample.
	Bone marrow	3.0mL (1.0mL)	EDTA	RT	72hrs	Ice pack	
	BM core biopsy	5mm ³	MPLN transport medium or equivalent (i.e. RPMI, Hanks) (2.0-4.0mL)	4°C	72hrs	Ice pack	
	Fresh tissue	5mm ³					
	Fine needle aspirate	3.0mL (2.0mL)					
	Frozen tissue	5mm ³					-20°C
	Paraffin-embedded tissue	Block	10% Neuttal buffered formalin	RT	Indefinite	Ambient	No heavy metal fixatives
BCR/ABL t(9;22) by quantitative PCR PML-RARA t(15;17) by quantitative PCR	Whole blood	20mL (10mL)	EDTA	4°C	48hrs	Ice pack	Do not allow the ice pack to directly contact the sample. If low WBC count, please send additional tubes.
	Bone marrow	2.0mL (1ml)					
FLT3, NPM1, CEBPA (AML mutation analysis)	Pretreated blood	5.0mL min	EDTA only	RT	72hrs	Ambient	Protect from extreme temperature. Do not allow ice pack to directly contact sample.
	Bone marrow	3.0mL (1.0mL)		4°C	7 days		

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JAK2 V617F mutation analysis	Whole blood	5.0mL min	EDTA (ACD)	RT	72hrs	Ambient	Protect from extreme temperature. Do not allow ice pack to directly contact sample.
	Bone marrow	3.0mL (1.0mL)		4°C	7 days		
HPV genotyping	Liquid cytology	2mL	ThinPrep® PAP solution or TriPath Imaging SurePath™ Test Pack solution	RT	21 days	Ambient	
KRAS mutation, BRAF mutation EGFR mutation	Paraffin-embedded tissue	Block	10% neutral buffered formalin fixed	RT	Indefinite	Ambient	If external temperature exceeds 55°C, include ice pack during shipping.
UGT1A1 genotyping	Whole blood	1 mL (400uL)	EDTA (ACD)	RT	24hrs	Ambient	If shipment delayed, refrigerate.
				4°C	7 days	Ice pack	Do not allow the ice pack to directly contact the sample.
Tumor Markers							
CellSearch™ – circulating tumor cell test	Two tubes of whole blood	10mL (7.5mL)	CellSave® preservative tube	RT	96hrs	Ambient	Specimens should be received within 36 hrs for optimal results.
Cytogenetics - Oncology							
Chromosome analysis	Whole blood	7mL (5mL)	Sodium Heparin	4-25°C	48hrs	Ambient	Protect from extreme temperature. For cancer cytogenetics please send WBC count with requisition. Call before sending specimen on Friday. Ship on Saturday for Monday delivery only.
	Bone marrow	3mL (1mL)	MPLN RPMI				
	BM core biopsy or fresh tissue	5mm ³					
	Fine needle aspirate	4mL (2mL)	Plain tube				
	Ascites, gastric, pleural effusion	15mL					
Fluorescence <i>in situ</i> hybridization (FISH) probes for hematological disorders	Whole blood	5mL (3mL)	Sodium Heparin (EDTA)	RT	72hrs	Ambient	Separate ice pack from specimen. Specimen should not come into contact with ice-pack.
	Bone marrow	3mL (1mL)	MPLN transport medium or equivalent (i.e. RPMI, Hanks) (2.0-4.0mL)	4°C	72hrs	Ice pack	
	Fine needle aspirate	3mL (2mL)					
	Fresh tissue	5mm ³					
Fluorescence <i>in situ</i> hybridization (FISH) probes for solid tumors	Paraffin-embedded tissue	Block	10% neutral buffered formalin	RT	Indefinite	Ambient	If external temperature exceeds 55°C, include ice pack during shipping.
UroVysion® in bladder cancer	Bladder washings or urine	50mL (35mL)	ThinPrep® PreserveCyt™ preservative	4°C	48hrs	Ice pack	Ship overnight. Separate ice pack from specimen.