

# Oncology/Pathology Specimen Requirements\*

## QUICK REFERENCE GUIDE

This document serves as a general reference guide for **minimum specimen requirements** necessary for testing. Test-specific requirements may differ, please refer to the directory of tests and services online at [www.integratedoncology.com](http://www.integratedoncology.com) for detailed specimen requirements for individual tests.

Specimen Type	IHC	Flow DNA	Flow Immunophenotyping**	Bone Marrow Morphology	Molecular/PCR	Cytogenetics/FISH	Storage & Transportation
Peripheral Blood		●Green-top: 3-7 ml <sup>4</sup>	●Green-top: 3-7 ml <sup>4</sup> (CLL-MRD: 20 ml)	◆Lavender-top: 3-5 ml or 2 peripheral blood smears	◆◆Lavender-top preferred (minimum 1 ml) or yellow-top (10 ml - full tube)	●Green-top: 5-10 ml <sup>4</sup>	Room temperature, transport with cold pack <sup>2</sup>
Fixed Bone Marrow Biopsy (Formalin) Core and/or Clot	1-2 cm (length) <sup>3</sup>	Paraffin-embedded 0.2 x 0.2 x 0.2 cm		1-2 cm (length) (10x formalin volume to specimen volume with fresh smear)	Non-decalcified tissue only	1-2 cm (length); non-decalcified tissue (FISH only)	Room temperature, transport with cold pack <sup>2</sup>
Fresh Bone Marrow Core Biopsy		■RPMI <sup>1</sup> 1-2 cm (length)	■RPMI <sup>1</sup> 1-2 cm (length)	1-2 cm (length) in 10% formaldehyde (place formalin cup in bag and seal)		■RPMI <sup>1</sup> 1-2 cm (length)	Room temperature, transport with cold pack <sup>2</sup>
Bone Marrow Aspirate***		●Green-top: 2-3 ml <sup>4</sup>	●Green-top: 2-3 ml <sup>4</sup>	5-10 smears/slides <sup>4</sup>	◆Lavender-top preferred (minimum 1 ml)	●Green-top: 2-3 ml <sup>4</sup>	Room temperature, transport with cold pack <sup>2</sup>
Fine Needle Aspirate (FNA)		■RPMI <sup>1</sup> 2 ml	■RPMI <sup>1</sup> 2 ml		■RPMI <sup>1</sup> 2 ml	■RPMI <sup>1</sup> 2 ml	Room temperature, transport with cold pack <sup>2</sup>
Fresh Tissue Biopsy	■RPMI <sup>1</sup> 2 pieces minimum 0.2 x 0.2 x 0.2 cm	■RPMI <sup>1</sup> 2 pieces minimum 0.2 x 0.2 x 0.2 cm	■RPMI <sup>1</sup> 2 pieces minimum 0.2 x 0.2 x 0.2 cm		■RPMI <sup>1</sup> 2 pieces minimum 0.2 x 0.2 x 0.2 cm	■RPMI <sup>1</sup> 2 pieces minimum 0.2 x 0.2 x 0.2 cm	Room temperature, transport with cold pack <sup>2</sup>
Frozen Tissue Biopsy		Snap frozen, minimum 0.5 x 0.5 x 0.5 cm			Snap frozen, minimum 0.5 x 0.5 x 0.5 cm		(-)20° C, ship on minimum 10 lbs. dry ice
Formalin-Fixed Paraffin-Embedded Block (FFPE) with Corresponding H&E	0.2 x 0.2 x 0.2 cm tissue	0.2 x 0.2 x 0.2 cm tissue			Minimum 0.2 x 0.2 x 0.2 cm tissue; non-decalcified tissue only; refer to individual test requirements <sup>6</sup>	Minimum 0.2 x 0.2 x 0.2 cm tissue; non-decalcified tissue only (FISH only)	Room temperature, transport with cold pack <sup>2</sup>
Unstained Slides from FFPE Block	Precut charged slides in 5 micron sections; minimum 2 slides per antibody				Precut slides in 5 micron sections; refer to individual test requirements for number of slides necessary	Precut slides in 5 micron sections; minimum 5 slides per test (FISH only)	
Cerebral Spinal Fluid (CSF)			○Sterile container			○Sterile container	Room temperature, transport with cold pack <sup>2</sup>
Body Fluids	○Sterile container with adequate cellularity 10-20 ml	○Sterile container with 1:1 dilution of RPMI; 10-20 ml; submit specimen within 24 hrs. to optimize viability	○Sterile container with 1:1 dilution of RPMI; 10-20 ml; submit specimen within 24 hrs. to optimize viability		○Sterile container with adequate cellularity 10-20 ml	○Sterile container with adequate cellularity 10-20 ml; submit specimen within 24 hrs. to optimize viability	Room temperature, transport with cold pack <sup>2</sup>
Urine						UroVysion®; 33 ml urine + 17 ml preservative	Refrigerate, transport with cold pack <sup>2</sup>

●Green-top = Sodium heparin<sup>5</sup> ◆Lavender-top = EDTA<sup>5</sup> ◆◆Yellow-top = ACD-A<sup>5</sup> ○Sterile container ■RPMI = Pink color culture media<sup>1</sup>

\* Integrated Oncology often uses a combination of technologies to provide a comprehensive analysis for the referring physician. Additional material may be requested if necessary. If less than the minimum specimen requirement is received, Integrated Oncology will attempt to perform the ordered test(s); however, a valid result may not be obtained due to insufficient specimen.

\*\* Flow: After the bone marrow/peripheral blood is drawn, please prepare a smear and provide CBC results along with the samples.

\*\*\* Bone Marrow Aspirate: Provide tightly capped container with no exposure to formalin fumes.

<sup>4</sup> Sodium heparin is required; lithium heparin is unacceptable.

1. Caution: Do not use RPMI when it turns cloudy, yellow or is at or beyond the expiration date; use only pink/orange color RPMI.

2. Be sure cold pack is not in direct contact with the specimen during transport.

3. IHC may be performed after tissue/cells have been fixed and processed into a paraffin block.

4. Flow DNA and Flow Immunophenotyping: Sodium heparin is the preferred anticoagulant, if not available, testing can be performed on a lavender-top (EDTA).

5. Please check anticoagulant expiration date prior to collecting specimen; do not use expired collection tubes.

6. MSI: Both normal colon and tumor tissue are required for MSI (PCR); peripheral blood may be substituted for normal tissue.

## Specimen Requirements

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- Label all tubes with a minimum of 2 unique patient identifiers; slides require 1 patient identifier (i.e. name, DOB, specimen ID #, medical record #)
- Close all tubes and canisters tightly
- Enclose completed paperwork

### Specimen Delay/Rejection:

Specimens can be delayed and/or rejected for the following reasons:

- Specimen is not labeled with required patient identifiers.
- There is a mismatch between the numbers on the requisition and on the specimen sent (i.e. blocks, slides, tubes).
- Specimen is received without a requisition.
- Tissue block is not processed correctly and reprocessing is required.
- Special request from the client to hold until further notice.

### Shipping Information:

Unsure where to send a specimen? Please call our Client Services Department: **(800) 447-5816**.

- In hot weather, enclose a refrigerated (not frozen) gel pack in shipper kit.
- In cold weather, run hot water over gel pack for 3-5 minutes and enclose in shipper kit.
- Ship specimens in a timely manner based upon the test-specific requirements.

## Transport Kits and Test Requisitions

Integrated Oncology provides easy-to-use specimen transport kits at no additional cost to clinicians, offices, and hospitals for specimens being sent to Integrated Oncology for testing. Transport kits may include specimen shipping containers, cool packs, test requisitions, Federal Express (FedEx®) clinical paks, and pre-addressed FedEx shipping labels for delivery six days a week.

To request test requisitions and shipping materials, please contact our client services department at **(800) 447-5816**. To request a courier or specimen pickup, please contact our logistics department at **(877) 246-1226**.

### Test Requisition Instructions:

Complete the test requisition with all requested information. Ensure all required fields are filled out and information submitted is accurate.

- Client: account #, name, address, phone #, fax #, ordering physician, NPI #, physician/authorized signature
- Patient: name, gender, DOB, address
- Billing: insurance company name, policy #, group # (attach face sheet and copy of insurance card)
- Specimen: hospital status when sample collected, specimen ID #s, body site, collection date and time
- Clinical: ICD-CM, clinical indication (attach clinical history and pathology reports), clinical status
- Tests/Services: select tests to be performed

Send a **signed, printed copy** of the test requisition with your specimens. Please ensure that all information on the test requisition matches the information on the specimens submitted (i.e. blocks, slides, tubes).

