

3.1 SPECIMEN REQUIREMENTS

For all cases, include the following (see test-specific specimen requirements below):

- A. Completed PhenoPath requisition form
- B. Pathology report corresponding to specimen (draft with at least the gross description is okay)
- C. Relevant clinical history reports/information. Include all relevant clinical data (e.g., previous and presumptive diagnosis, pertinent medication/recent treatment (inc. dates of therapy), along with copies of any current or previous flow cytometry and/or cytogenetic reports
- D. Current or previous flow cytometry and/or cytogenetic reports for hematopathology cases
- E. Billing instructions and applicable information
- F. Specimen for testing/consultation

Note: Primary specimen containers (the innermost container that actually holds the specimen, e.g., blood tube, biopsy container, urine/sputum container, must be labeled appropriately (with at least two patient identifiers and collection date); when multiple specimens from the same patient are collected for analysis, the source of the specimens must be clearly indicated on the primary container

- G. H&E of specimen to be tested if possible (or applicable)

Specimen Type	IHC/ Histology	ER, PR, HER2 by IHC or FISH ³	CD52 by IHC	Flow Cytometry ⁴	FISH ⁵	PCR or RT-PCR ⁵	Direct IF: Skin, mucosa, other	Indirect IF (Serum) ⁶	Storage/ Transport
Formalin-fixed, Paraffin-embedded Tissue Blocks ^{1,2}	Tissue block with area of interest	Tissue block with area of interest	N/A	N/A	Tissue block with area of interest	Tissue block with area of interest	Contact the lab	N/A	Room temperature Use frozen ice pack
Formalin-fixed, Paraffin-embedded Unstained Slides ^{7,8}	4µm thickness, on adhesive slide	4µm thickness, on adhesive slide	N/A	N/A	4µm thickness, on adhesive slides	4µm thickness, on slides	Contact the lab	N/A	Room temperature Use frozen ice pack
Fresh Tissue Biopsy	In Formalin	In Formalin	Frozen tissue****	Finely minced tissue in RPMI ⁹	In Formalin	In Formalin	In Michel's (Zeus) transport media	N/A	Room temperature Use frozen ice pack
Peripheral Blood	N/A	N/A	N/A	Preferred: Green ¹⁰ Top Tube 1-2 mL Acceptable: Lavender/ Purple ¹¹ Top Tube 1-2 mL	Green ¹⁰ Top Tube 1-2 mL and/or Lavender/ Purple ¹¹ Top Tube 1-2 mL	Preferred: Lavender/ Purple ¹¹ Top Tube 1-2 mL Acceptable: Green ¹⁰ Top Tube 1-2 mL	N/A	At least 0.5 mL of serum; >1.0 mL is preferred	Room temperature Use frozen ice pack
Bone Marrow Core/Clot ^{*,12}	In Formalin	N/A	N/A	In RPMI ⁹	In Formalin or in RPMI ⁹	In Formalin or in RPMI ⁹	N/A	N/A	Room temp Use frozen ice pack

Specimen Type	IHC/ Histology	ER, PR, HER2 by IHC or FISH 3	CD52 by IHC	Flow Cytometry 4	FISH 5	PCR or RT-PCR 5	Direct IF: Skin, mucosa, other	Indirect IF (Serum) 6	Storage/ Transport
Bone Marrow Aspirate **	In cell block; clot only	N/A	N/A	Preferred: Green ¹⁰ Top Tube 1-2 mL Acceptable: Lavender/ Purple ¹¹ Top Tube 1-2 mL	Green ¹⁰ Top Tube 1-2 mL and/or Lavender/ Purple ¹¹ Top Tube 1-2 mL	Preferred: Lavender/ Purple ¹¹ Top Tube 1-2 mL Acceptable: Green ¹⁰ Top Tube 1-2 mL	N/A	N/A	Room temperature Use frozen ice pack
Malignant Fluids	In Formalin (prefer cell block)	In Formalin (prefer cell block)	N/A	In RPMI ⁹	In Formalin (prefer cell block) or in RPMI ⁹	In Formalin (prefer cell block) or in RPMI ⁹	N/A	N/A	Room temperature Use frozen ice pack
Fine Needle Aspirate (FNA)	In Formalin (prefer cell block)	In Formalin (prefer cell block)	N/A	In RPMI ⁹	In Formalin (prefer cell block) or in RPMI ⁹	In Formalin (prefer cell block) or in RPMI ⁹	N/A	N/A	Room temperature Use frozen ice pack
Cerebral Spinal Fluid (CSF)	In Formalin (prefer cell block)	In Formalin (prefer cell block)	N/A	At least 1 mL of non- traumatically-obtained CSF combined with an equal or greater volume of RPMI ^{9,***}	In Formalin (prefer cell block) or in RPMI ⁹	In Formalin (prefer cell block) or in RPMI ⁹	N/A	N/A	Room temperature Use frozen ice pack

¹ Alternate fixative must be identified. Our testing is validated for formalin-fixed specimens. We have experience with and may have validated some tests to alternate fixatives; contact the laboratory if you have questions about a specific fixative.

² Decalcified tissues: Reactivity may be compromised in ways impossible to predict. As with all histological procedures, thorough fixation prior to decalcification is required. Checking the endpoint of decalcification to avoid over-treatment also improves the likelihood of adequate immunoreactivity.

³ Formalin fixation >6 hrs and <72 hours is required for ER, PR; >6 hrs and <48 hrs for HER2 IHC and HER2 FISH studies.

⁴ For flow cytometry, please prepare a smear and send CBC results.

⁵ For FISH testing, refer to our website or contact the laboratory to determine the specimen requirements for the specific test(s) being requested.

⁶ Blood for IF studies should be drawn into a clot tube (red top), spun down and the serum separated from the clot.

⁷ Amyloid subtyping: Also submit two 8µm (each on its own slide) for correlative Congo Red stain.

⁸ Contact the laboratory to find out how many slides to send, or if your slides are acceptable.

⁹ Do not use RPMI if it is cloudy, yellow, or beyond expiration date.

¹⁰ Green Top Tube = Sodium Heparin

¹¹ Lavender/Purple Top Tube = EDTA

¹² For bone marrow specimens, the non-decalcified clot is preferred for FISH and/or PCR studies

* For bone marrow morphology, also provide fresh air-dried aspirate smears for evaluation.

** Provide bone marrow aspirate smears and/or stained slides in sealed containers with no exposure to formalin fumes.

*** The addition of RPMI precludes determination of the absolute leukocyte count in vivo in the aliquot of CSF.

**** Keep frozen tissue frozen, and ship on dry ice