



Specimen Requirements and Handling Procedures

The quality of laboratory results is highly dependent upon proper specimen collection and handling. Listed below are specimen requirements and handling procedures for tests performed by NeoGenomics Laboratories.

Specimen Type	Cytogenetics	FISH	Flow Cytometry	Bone Marrow Morphology	IHC	Molecular
Bone Marrow Aspirate*	1-2 mL sodium heparin	1-2 mL sodium heparin EDTA OK if sodium heparin not available FISH Non-PCE: 0.5-1 mL single probe, 1-2 mL panel	1-2 mL EDTA Provide CBC report sodium heparin is acceptable lithium Heparin and ACD not acceptable	EDTA with 4-6 smears/slides	N/A	2 mL EDTA sodium heparin OK if EDTA not available
Peripheral Blood*	2-5 mL sodium heparin Provide CBC report	1-5 mL sodium heparin EDTA OK if sodium heparin not available FISH Non-PCE: 0.5-1 mL single probe, 1-2 mL panel	1-2 mL EDTA Provide CBC report sodium heparin is acceptable lithium Heparin and ACD not acceptable	EDTA with 2-3 smears/slides	N/A	5 mL EDTA sodium heparin OK if EDTA not available For Liquid Biopsy requirements, please contact Client Services.
Bone Marrow Core Biopsy and/or Aspirate Clot (10% NBF)*	N/A	N/A	N/A	>1.5 cm core (length) 10x formalin to specimen volume. Additional 2 touch imprints preferred.	1-2 cm core (length) core and clot sent in separate formalin containers	N/A
Fresh Bone Marrow Core Biopsy*	1-2 cm core (length) tissue in RPMI	0.5 cm core (length) tissue in RPMI	1-2 cm core (length) tissue in RPMI	N/A	N/A	1-2 cm core (length) tissue in RPMI
Fresh/Unfixed Tissue*	>0.3 cm ³ in RPMI POC: Known villi and/or fetal tissue: 1-1.5 cm	0.2 cm ³	0.5-1 cm ³ tissue in RPMI	N/A	N/A	0.5-1 cm ³
Fluids*	CSF: 1-3 mL All other fluid: 5-10 mL	50-100 mL	50-100 mL	N/A	N/A	50-100 mL
Paraffin Block or Cut Slide* (For cut slides, place sections from only one block on each slide.)	N/A	Suitable only for select assays; see website to confirm. Paraffin block preferred. Please use positively-charged slides and 10% NBF fixative. Do not use zinc or mercury fixatives (B5).	N/A	N/A	Paraffin block preferred or 4-5 micron thick tissue sections on positively charged slides, at least 3 slides per antibody. No additives in waterbath. See article** for slide use and storage recommendations.	Suitable for select assays: see website to confirm. Paraffin block preferred. Please use positively-charged slides and 10% NBF fixative. Do not use zinc or mercury fixatives (B5).
Voided Urine*	N/A	33-60 mL voided urine mixed 2:1 with supplied PreservCyt within 30 minutes of collection for total volume ≥50 mL	N/A	N/A	N/A	N/A
Decalcified Specimens*	N/A	Not acceptable	N/A	Acceptable	Acceptable for bone; inquire for non-bone	Not acceptable

Storage and Transportation

* Use cold pack for transport, making sure cold pack is not in direct contact with specimen. For fresh specimens, ship same day as drawn whenever possible. EXCEPTION- For Liquid Biopsy specimens, please contact Client Services for special kit and instructions.

* Refrigerate and use cold pack for transport. For fresh specimens, ship same day as drawn whenever possible.

**Impact of environmental stress on various histology slide types. Ventana. 2013; N4629 0313B. <https://neogenomics.com/sites/default/files/Brochure/Impact-of-env-stress-on-histology-slide-types-Ventana-2013.pdf>

NeoGenomics cannot accept category A infectious substances as defined by IATA (Dangerous Goods Regulations 3.6.2.1.1 Definition – Infectious Substances), including, but not limited to, specimens that may harbor variant Creutzfeldt-Jakob Disease (mad cow disease), variant Creutzfeldt-Jakob Disease, or microbiologic cultures of Mycobacterium Tuberculosis. FFPE, fresh blood or bone marrow specimens, and body fluids are acceptable from patients with tuberculosis. For full details, see <https://neogenomics.com/client-services/forms-and-kits>.