

The quality of laboratory results is highly dependent upon proper specimen collection and handling. Listed below are specimen requirements and handling procedures for tissue, liquid biopsy, and heme profiles.

Tissue and liquid biopsy specimen information

	Profile	Peripheral blood	FFPE block or cut slides	Storage and transportation
NeoTYPE and PanTracer tissue profiles	NeoTYPE® Panels: Breast, Cervical, Colorectal, Endometrial, Esophageal, Gastric, GI Predictive, GIST/Soft Tissue, Head and Neck, HRR, Liver/Biliary, Lung [†] , Melanoma, Other Solid Tumor, Ovarian, Pancreas, Thyroid, Precision NeoTYPE® DNA & RNA – Brain	N/A	Paraffin block preferred. ≥10mm ² of tissue surface area and ≥20% tumor nuclei. Use positively-charged slides and 10% NBF fixative. Do not use zinc or mercury fixatives (B5). FISH and IHC requirements for NeoTYPE® profiles: FISH: 50-100 viable tumor cells per probe set. IHC: The minimum number of viable tumor cells varies between 50-200 depending on the test requested. It is recommended for all IHC testing to submit >200 viable tumor cells. 10% NBF fixative only, decalcified samples not accepted. The following components of NeoTYPE® profiles require ≥40% tumor nuclei: MSI (excluding colon) if no paired normal is available, and MGMT Promoter Methylation Analysis in brain.	Use cold pack for transport, making sure cold pack is not in direct contact with specimen. <i>See article*** for slide use and storage recommendations.</i>
	Neo PanTracer™ Tissue Neo PanTracer™ Tissue + HRD[‡] Neo PanTracer™ Pro NeoTYPE® DNA & RNA – Lung	N/A	Paraffin block preferred: Minimum ≥5 mm ² of tissue surface area and ≥20% tumor (~500 tumor cells); ≥40% tumor required for HRD assessment. Unstained slides: Large resection specimens. 10 unstained slides at 4-5-micron thickness, plus 1 additional unstained slide for H&E. For PanTracer Pro, please submit 25 slides. Unstained slides: Cell blocks/FNAs and small needle core biopsies: 20 unstained slides, plus 1 additional unstained slide for H&E. For PanTracer Pro, please submit 25 slides. Please use positively charged slides and 10% NBF fixative. Do not use zinc fixative. Decalcified samples are not accepted.	
Liquid biopsy	Neo PanTracer™ LBx[*]	Two x 10 mL Streck Cell-Free DNA BCT [*] tubes	N/A	Do not refrigerate. Special collection tubes and shipping requirements apply. Please contact Client Services for kits and see instructions provided in kit.

Hematologic specimen information

	Profile	Peripheral blood	Bone marrow	FFPE block or cut slides	Fresh tissue	Storage and transportation	FFPE additional requirements
NeoTYPE and Neo Comprehensive heme profiles	Neo Comprehensive® – Heme Cancers Neo Comprehensive® – Myeloid Disorders NeoTYPE® ALL, AML Prognostic, Lymphoid Disorders, MDS/CMML	5 mL in EDTA or Sodium Heparin tube	2 mL in EDTA or Sodium Heparin tube	Paraffin block preferred. Please use positively charged slides and 10% NBF fixative. Do not use zinc or mercury fixatives (B5).	N/A	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. (See notes below) <i>See article*** for slide use and storage recommendations</i>	Biopsies and other surgical specimens: Minimum of ≥10mm ² surface area with ≥20% tumor nuclei.** Cytology cell blocks or FNA FFPE: Minimum ≥500 tumor cells with ≥20% tumor nuclei.** Available for select tests, see website to confirm before sending. - Requisitions must note specimen is FNA. - FNA smears, unembedded FNA samples, or cytology cells in suspension are not accepted. FISH requirements: 50-100 viable tumor cells per probe set. **10% NBF fixative only, decalcified samples not accepted.
	NeoTYPE® CLL				0.5-1 cm ³ in RPMI for FISH panel only		
	NeoTYPE® Follicular Lymphoma*	N/A	N/A		N/A		

*Not approved by the New York State Department of Health

**Ship same day as drawn whenever possible; specimens less than 7 days old preferred. To ensure sample stability, ship samples directly to NeoGenomics Aliso Viejo.

***Impact of environmental stress on various histology slide types. Ventana. 2013; N4629 0313B. <https://cms.neogenomics.com/sites/default/files/2025-03/Impact-of-env-stress-on-histology-slide-types-Ventana-2013.pdf>

‡ HRD validated for ovarian cancer only.

NeoGenomics cannot accept any specimens (fresh or fixed) infected with Category A pathogens including, but not limited to, variant Creutzfeldt-Jakob (mad cow), Tularemia, Brucella, etc.

FFPE specimens are acceptable for Tuberculosis only.

For full details, see <https://www.neogenomics.com/providers/support-resources>

For more information about our range of offerings and specimen requirements, visit [NeoGenomics.com](https://www.neogenomics.com) or contact our Client Services team at 866.776.5907, option 3.

NeoGenomics, Inc. is a premier cancer diagnostics company specializing in cancer genetics testing and information services. We offer one of the most comprehensive oncology-focused testing menus across the cancer continuum, serving oncologists, pathologists, hospital systems, academic centers, and pharmaceutical firms with innovative diagnostic and predictive testing to deliver timely, actionable insights that guide personalized care decisions. Headquartered in Fort Myers, FL, NeoGenomics operates a network of CAP-accredited and CLIA-certified laboratories for full-service sample processing and analysis services throughout the US and a CAP-accredited full-service sample-processing laboratory in Cambridge, England. ©2026 NeoGenomics Laboratories, Inc. All rights reserved.