

## NeoGenomics Pharma Services

### Specimen Input and Requirements for Molecular Applications (NGS, qPCR/Sanger, NanoString, Liquid Biopsy)

We accept additional samples types and inputs, please email [PharmaPM@neogenomics.com](mailto:PharmaPM@neogenomics.com) if you have custom requirements

Sample Type	Amount	Details
Genomic DNA	≥ 500 ng	<b>Purity:</b> OD260/280 ratio 1.5 - 2.0 <b>Concentration:</b> DNA at 50 ng/μL <b>Volume:</b> DNA 50 μL (minimum 25 μL, maximum 100 μL) <b>Buffer:</b> 10 mM Tris pH 8, 1 mM EDTA <b>Shipment Method:</b> Frozen/dry Ice
Genomic DNA (PCR free)	≥ 1.5 μg	<b>Purity:</b> OD260/280 ratio 1.5 - 2.0 <b>Concentration:</b> DNA at 50 ng/μL <b>Volume:</b> DNA 50 μL (minimum 25 μL, maximum 100 μL) <b>Buffer:</b> 10 mM Tris pH 8, 1 mM EDTA <b>Shipment Method:</b> Frozen/dry Ice
FFPE	≥ 0.8 μg	<b>Recommended Quantity:</b> ≥8 FFPE slides recommended <b>Minimum Quantity:</b> 4 FFPE slides <b>Thickness:</b> 5μm-10 μm <b>Area:</b> >150 mm <sup>2</sup> <b>Shipping Method:</b> Room Temperature/Blue Ice <b>Pathology Review:</b> Pathology report if available or add an extra slide for H&E staining
Fresh Frozen Tissue	10 mg	<b>Recommended Quantity:</b> 10 mg <b>Minimum Quantity:</b> 2 mg <b>Shipping Method:</b> Dry Ice
Total and Targeted RNA-Seq	≥ 0.8 μg	<b>Purity:</b> OD260/280 ratio 1.8 - 2.2 <b>Recommended RIN:</b> ≥6.0 <b>Recommended Quantity:</b> >2 μg <b>Concentration:</b> 50 ng/μL <b>Buffer:</b> Nuclease-free water <b>Shipment Method:</b> Frozen/dry Ice
Whole Blood	1 tube	<b>Recommended Quantity:</b> 1 tube/sample <b>Recommended Volume:</b> 500 μl/tube <b>Minimum Volume:</b> 200 μl/tube <b>Recommended Volume:</b> 2.5 mL (EDTA Whole blood, PAXgene) <b>Shipping Method:</b> Fresh/Blue Ice, Frozen/Dry Ice

NOTE: The above guidelines are recommended requirements for sample preparation or sample input. As each project is different, please contact us and discuss with our scientific experts on project-specific requirements.

## NanoString Sample Input and Requirements Guidelines

NanoString Assay	Sample Type	Assay Amount	Required Sample Shipping Amount/Concentration Per Replicate
nCounter XT Gene Expression and nCounter Elements™	Total RNA	> 100 ng	No less than 150 ng, normalized to 20 ng/μL
	Cell Lysate	10,000 cells	No less than 15,000 cells. Minimum 6,500 cells/μL or minimum 3,300 cells/μL for Elements
	FFPE RNA	> 100 ng	no less than 150 ng, normalized to 20 ng/μL
nCounter XT Single Cell and nCounter Elements	Single Cells low input RNA	Varied (amplification) 10 pg - 10 ng	> 1 cell or 10 pg RNA
miRNA	Total Purified RNA	> 100 ng	No less than 150 ng, normalized to 33 ng/μL
	FFPE RNA	> 100 ng	No less than 150 ng, normalized to 33 ng/μL
	Plasma, Serum Biofluid	1-3 μL	Purified RNA equivalent of > 200 g/μL plasma or serum
nCounter XT Single CNV and nCounter Elements	Purified Genomic DNA only	600 ng	No less than 650 ng, normalized to 85 ng/μL
nCounter XT Single CHIP and nCounter Elements	Purified Genomic DNA only	Varied (5-10/μL)	No less than 10/μL