Sample requirements for NeoGenomics Pharma Services MultiOmyx studies are detailed below. Any exceptions to these requirements should be discussed and agreed prior to shipping samples for analysis.

**Documentation**

- A tissue manifest must be provided. At a minimum, the tissue manifest needs to provide the link between sample label and type of tissue; e.g., melanoma, NSCLC, H&N, etc. and also include the study protocol/name.
- Each sample must be labeled legibly, appear on the Tissue Manifest, and correspond morphologically with the tissue type and description listed for that sample on the Tissue Manifest.
- If TMAs are to be tested, the TMA map(s) must be provided.

**Sample Types and Specifications**

- Samples must be Formalin Fixed Paraffin Embedded (FFPE) blocks or slides, either whole tissue or TMA.
- There should not be any obvious damage from heat; e.g., melted paraffin and/or exposed tissue devoid of paraffin.
- If slides are provided, the FFPE tissue must be firmly adhering to the slide. Slides cannot be broken or cracked.
- At least 1000 cells must be present and in serviceable condition; e.g., not crushed.
- There can be no obvious visible contaminants.

**Blocks**

- Submit blocks with the largest tumor content. Samples prepared from entirely necrotic tumor, fine-needle aspirates, or cytology preparations cannot be accepted.
- Blocks must be fixed with 10% Neutral Buffered Formalin. Blocks prepared with another fixative cannot be accepted for analysis. Blocks are to be fixed preferably for 18-24 hours. If other times are used, please indicate on the requisition and/or manifest.
- Mark tumor block cassette with Subject ID number.
- Place marked sample in zip lock bag and mark bag with the Subject ID number as well as the site number if applicable. Include a sample manifest and TMA map if applicable.
Slides

Whole Tissue
- Samples must be cut to 4µm nominal thickness and mounted on Fisher brand SuperFrost™ Plus positively-charged microscope slides (catalog number 12-550-15).
- It is recommended that slides are prepared fresh before submission, but within 1 week is acceptable.
- Slide specimens must be cut to section thickness 3 - 5µm using a clean water-bath. It is recommended a minimum of two (2) slides per sample be provided, but a single (1) slide is acceptable.
  - Do not add any adhesives to the water-bath.
  - Do not use tape-sectioning.
  - Position section in the center of the slide.
  - Drain excess water from slide by standing slide vertically on a paper towel until water runs down to the bottom.
  - Gently tap slide on paper towel to remove any excess water; do NOT wipe the slide with the paper towel.
  - Drying time and temperature on hotplate after cutting: 45 degrees C for 30 min.
  - Slides must be fully dried prior to shipping.
  - Air dry slides for 1 hour (minimum).
- Important: Each slide must be labeled with the appropriate block ID and/or the appropriate subject number which must match the requisition, and if included, the pathology report.
- Place slides in a slide holder and mark with Subject ID number as well as the site number.
- Tissue must be mounted on the frosted side of the slide.
- There can be no obvious tissue folding; do not ship slides with obvious tissue folds.
- Tissue cannot extend into the long slide dimension margin of 0.25 inch (6.4mm) or into the short side dimension margin of 0.125 inch (3.2mm); see Figures 1 & 2 below for explanation.

![Figure 1: Acceptable Whole Tissue Slide Parameters](image)

TMA
- TMA map(s) must be provided.
- TMA pattern must match the TMA map provided.
- Minimum core size of 0.6mm diameter.
Individual cores in the TMA must not touch adjacent cores.
Fiduciary features are not required, but are recommended. Open TMA spots are permissible.
TMA cores cannot extend into the long slide dimension margin of 0.25 inch (6.4mm) or into the short side dimension margin of 0.125 inch (3.2mm); see Figure 2 below for explanation.

**Shipping Instructions**
- Samples of multiple subjects may be sent in one shipment but must be separated into individual specimen bags, accompanied by the corresponding requisition forms.
- Please verify local and national holidays prior to shipment.
- Label block/slides with the following:
  - Study/Protocol Number
  - Subject Screening Number (if applicable)
  - Specimen/Tissue Block ID
  - Collection Date (if applicable)
- BLOCK: Insert labeled tissue block into small zip lock bag.
- SLIDES: Place labeled slides directly into the slide holders.
- Include a sample manifest and TMA map if applicable.
- Ship priority or standard overnight to:
  NeoGenomics Laboratories
  Attn: Pharma Services (MultiOmyx)
  31 Columbia
  Aliso Viejo, CA 92656
- Notify NeoGenomics of the shipment
  - AlisoViejo.Biopharmprocessing@neogenomics.com and appropriate project manager with air bill number/tracking number, study ID and sample ID.
  - Nicole LaPlante nicole.laplante@neogenomics.com
  - Alex Bordwell alex.bordwell@neogenomics.com
- Please avoid transporting samples over the weekend

![Figure 2: Acceptable TMA Slide Parameters](image)
### Revision History

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<td>1</td>
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<td>04-Feb-2016</td>
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<td>2</td>
<td>N LaPlante</td>
<td>26-Aug-2016</td>
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<td>3</td>
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<td>31-Oct-2016</td>
<td>Updated based on input from A Bordwell, N Hoe, L Howells, and N LaPlante. Paragraph numbering removed, some sections consolidated to make document more readable.</td>
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