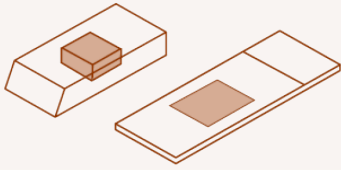


Tissue requirements for solid tumor next-generation sequencing

The following specimen requirements ensure testing can proceed without delay and increases the likelihood of successfully generating sequencing results.

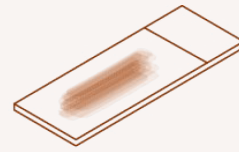
Acceptable samples

Preliminary or final pathology reports should accompany all specimens.



Formalin-fixed, paraffin-embedded (FFPE) tissue

- Tissue should be fixed in 10% neutral-buffered formalin. Other fixatives are not acceptable unless otherwise noted
- Decalcified specimens **are not acceptable**



Cytology smears

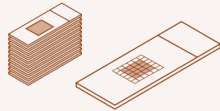
- Slides prepared from fine needle aspirations or touch preps
- Slides prepared from Thin Prep
- Body fluid specimen (effusions/washings)
- Punch biopsy prints
- Plastic coverslips **not preferred** and require extra processing time

Tissue size and total cell requirements

Preferred:

4mm X 4mm slice size,

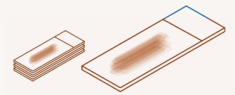
10 slices by 5 microns.



Preferred: 5000 cells (total quantity).

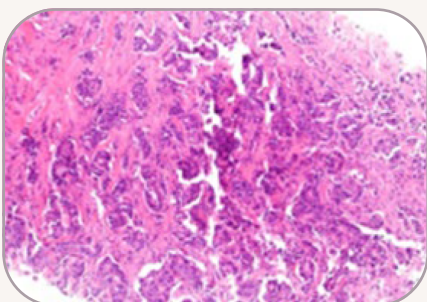
Minimum: 3000 cells (total quantity).

Up to 3 slides can be used to meet cellular requirements.

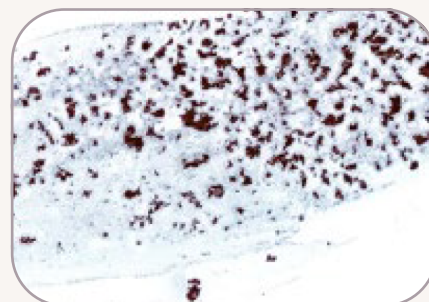


$$\text{Percentage (\% tumor nuclei)} = \frac{\text{number of tumor cells}}{\text{total number of all cells with nuclei}}$$

20-30%
optimal



Example of core biopsy with sufficient total cells and tumor cells



Example of cytology smear with sufficient total cells and tumor cells