

Research &
Pharma Solutions

Slide-Guide for Spatial Transcriptome Sequencing



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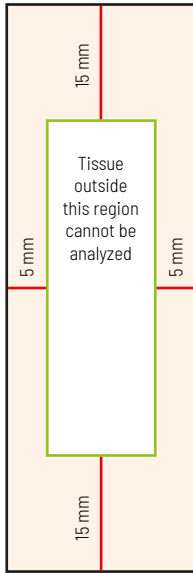
For Spatial Transcriptome Sequencing, either FFPE tissue blocks or FFPE sections on slides can be provided. If you provide FFPE sections, a few aspects need to be considered. To ensure a successful realization of your project, we recommend placing the FFPE section on a 10x-approved glass slide. The following slides have been tested by 10x for use with the Visium CytAssist:

Item	Length (mm)	Width (mm)	Thickness (mm)
Epredia Shandon ColorFrost Plus Slides	75.0	25.0	1.0
Fisherbrand SuperFrost Plus Microscope Slides	75.0	25.0	1.0
Sigma-Aldrich Poly Prep Slides	75.0	25.0	1.0
VWR SuperFrost Plus Micro Slide, Premium	75.0	25.0	1.0

The tissue needs to be placed inside the allowable area to ensure that it can be analyzed. The allowable area is within 15 mm from the top and bottom edges and 5 mm from the sides. If the slide has frosted areas, the tissue needs to be far enough away from these frosted areas. Frosted sections include the opaque area and any etching on the slide. The allowable area is within 15 mm from the edges, frosted areas or marks, and 5 mm from the sides.

If the slide has no frosted areas, overlay on this diagram.

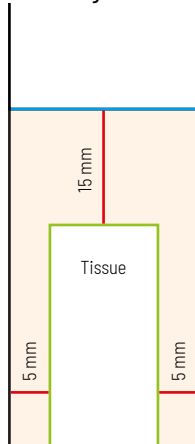
Tissue should lie within the green allowable area:
15 mm from the top and bottom edges,
5 mm from the sides.



If the slide has a frosted edge and/or marks, overlay on diagram 1 and then on diagram 2.

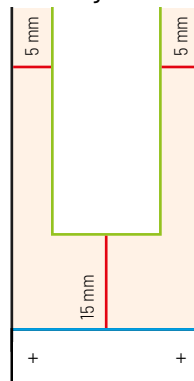
Check the allowable area from both the top (diagram 1) and bottom (diagram 2) to ensure the tissue lies within the green allowable area. This area is variable due to variability in the dimensions of the frosted area across slide brands:
15 mm from the edge of the frosted area/marks
5 mm from the sides

Diagram 1



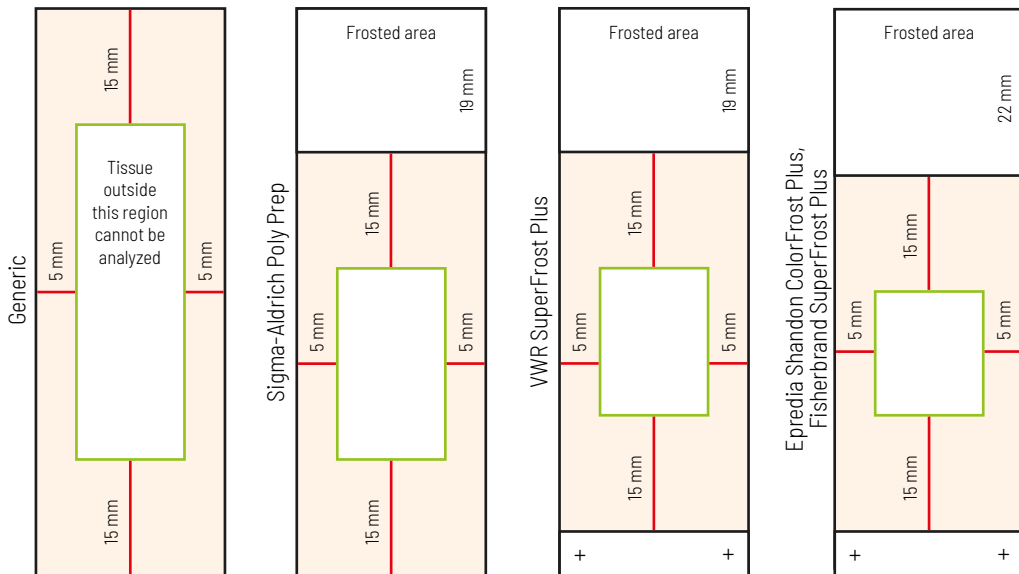
Align the bottom edge of frosted area to the horizontal blue line. If the text is present below the frosted area of the slide, align the bottom of the text to the line.

Diagram 2



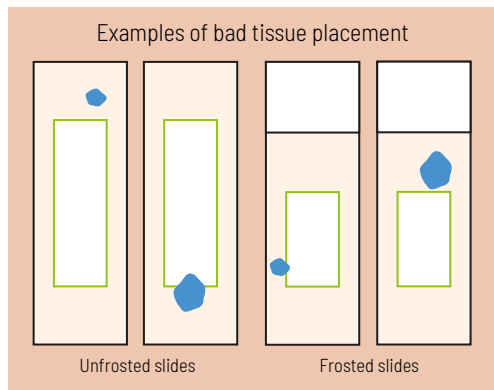
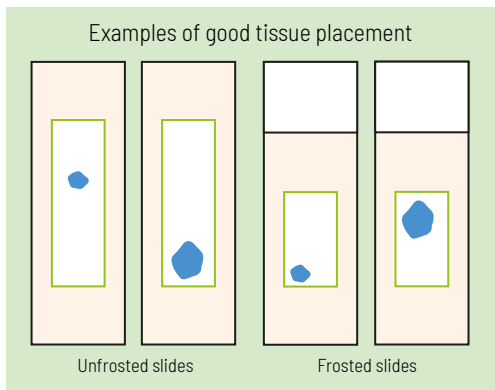
Align the bottom edge of the horizontal blue line. If markings are present at the bottom edge of the slide, align the markings to the „+“ signs.

If you are unsure about your slide, you can refer to the “generic” slide diagram for general guidance.

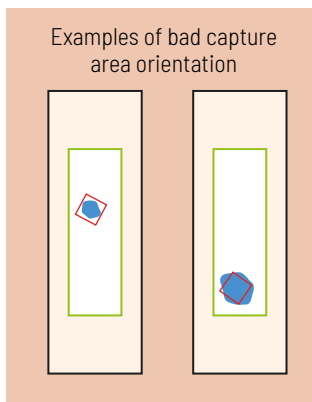
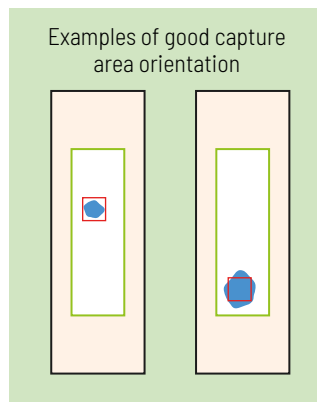


Most slides measure 25 mm x 75 mm, but manufacturing tolerances may result in smaller or larger dimensions, making them too small or large to be compatible with 10x Genomics® products. Slides with 24.8 mm – 25.3 mm in width and 74.4 mm – 76.2 mm in length fit inside the Visium CytAssist.

In the following, you can find examples of good and bad tissue placement:



Within the Visium CytAssist, the probes that hybridized to the RNA on the tissue placed on the standard glass slide are transferred to the Visium slide. The capture area on the Visium slide measures 6.5 mm x 6.5 mm. Tissue sections larger than the capture area may be placed on the glass slide, but only the tissue within the capture area will be further analyzed. It is important that the region of interest that is placed within the capture area (red) is oriented in parallel to the sides of the slide:



For further information about FFPE-tissue preparation for Spatial Transcriptome Sequencing, we refer you to the [Demonstrated Protocol](#) provided by 10x (specifically pages 9 and 10).