

Comparing the Resolution of Our Standard Products with Our High-Definition Products for Spatial Transcriptome Sequencing



Comparing the Resolution of Our Standard Products with Our High-Definition Products for Spatial Transcriptome Sequencing

10x offers two different resolutions for Spatial Transcriptome Sequencing. On both the standard (SD) and the high-definition (HD) slide, two capture areas measuring 6.5 mm x 6.5 mm each are available.

The standard slide holds 5,000 barcoded spots per capture area. Each spot comprises millions of capture probes and has a diameter of 55 μm . The distance between two centers is 100 μm . Sequencing at least 25,000 read pairs per tissue-covered spot is recommended, resulting in 125 million read pairs per fully covered capture area.

The HD slide has a continuous lawn of oligonucleotides arrayed in approximately 11 million barcoded squares without gaps. The squares have a size of 2 μm x 2 μm . The following bin sizes are reported: 2 μm x 2 μm , 8 μm x 8 μm , and 16 x 16 μm . 275 million read pairs are recommended per fully covered capture area. Thus, the high-definition products have a single cell-scale resolution and a continuous detection of gene expression.



Want to Discover More?

We invite you to take a look at our website.

www.cephg.com/spatial-transcriptome-sequencing

Depending on your research question, it might be necessary to continuously map gene expression at a single-cell scale resolution. This might, for example, be beneficial for very small anatomical structures or highly heterogeneous tissues. If a single-cell scale resolution is not required, the standard slide might be sufficient. We have Spatial Transcriptome Sequencing products in our [portfolio](#) for both demands.

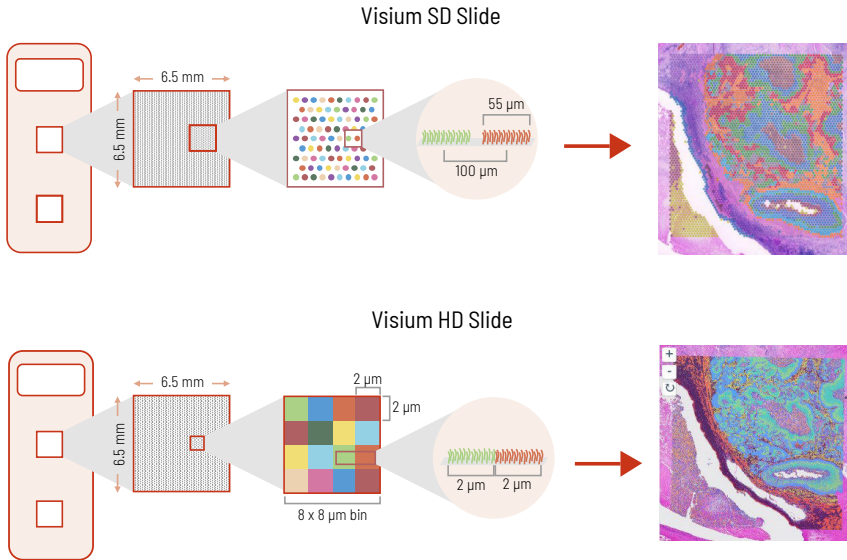


Figure 1 | Difference between the Visium SD and the HD slide. While the standard slide holds 5,000 barcoded spots per capture area, the HD slide has a continuous lawn of barcoded oligonucleotides.