





MOBIDROP

# HLST: High Resolution and Large Visualization Spatial Transcriptome (MobiNova-HLST)

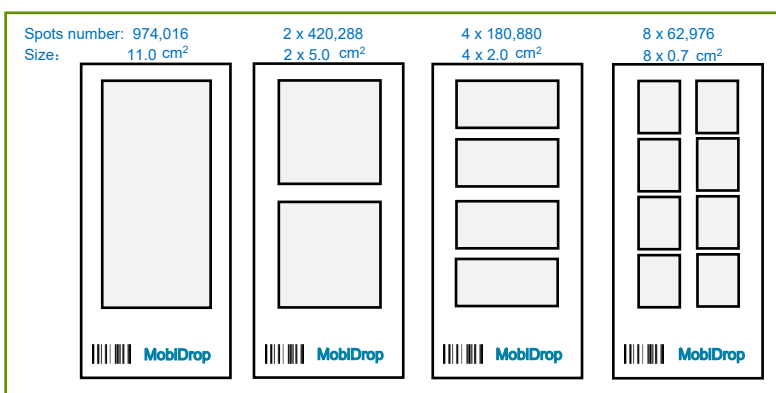
 Driving innovation  
Seeing future 

# Introduction

Advances in spatial transcriptome technologies have accelerated the further understanding of the complexity of cellular interactions during development and disease. Higher spatial resolution technologies are required to more accurately distinguish and characterize cellular diversity and disease states within tissues.

MobiNova-HLST Spatial Gene Expression Assay is a novel high-resolution and large-visualization spatial technology that utilizes oligo clusters to resolve data in intact tissue sections. Especially, this strategy can be used to thus samples of large model animal with different sizes of ChIP.

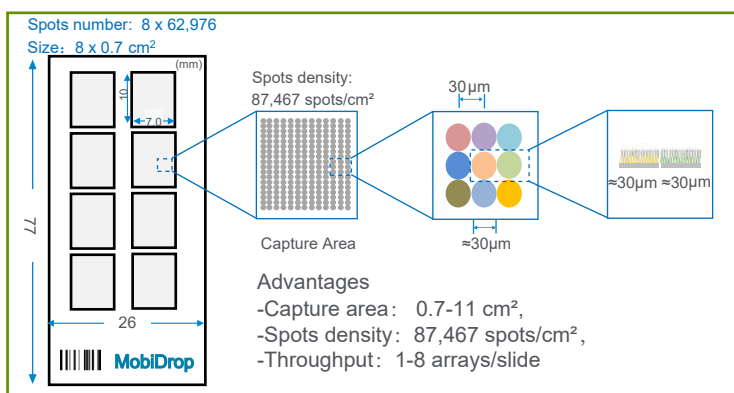
## 1. Slide size of MobiNova-HLST



**Figure 1. Slide size of MobiNova-HLST**

The slides of MobiNova-HLST are available in four slide forms: 11.0 cm<sup>2</sup>, 2 X 5.0 cm<sup>2</sup>, 4 X 2.0 cm<sup>2</sup>, 8 X 0.7 cm<sup>2</sup>.

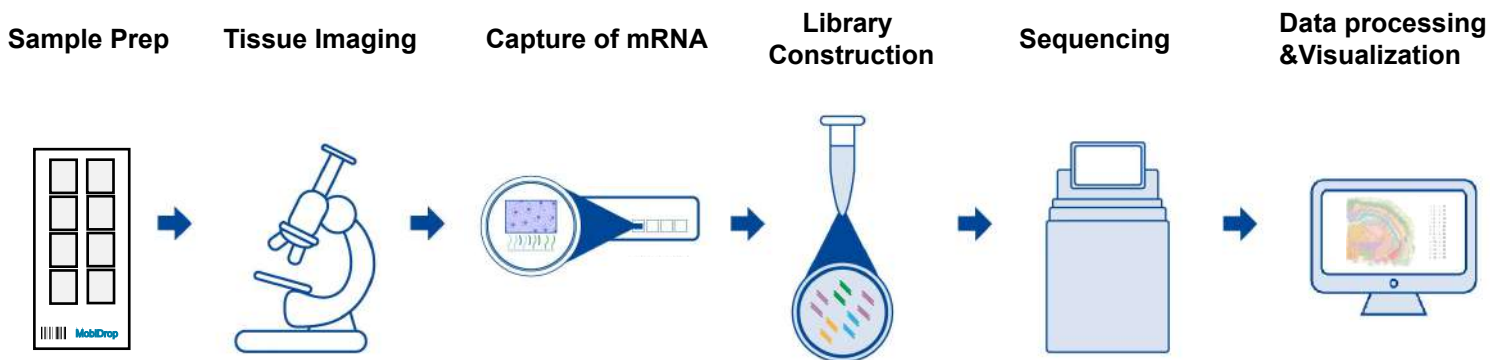
## 2. Parameters of MobiNova-HLST



**Figure 2. MobiNova-HLST Spatial Gene Expression slide.**

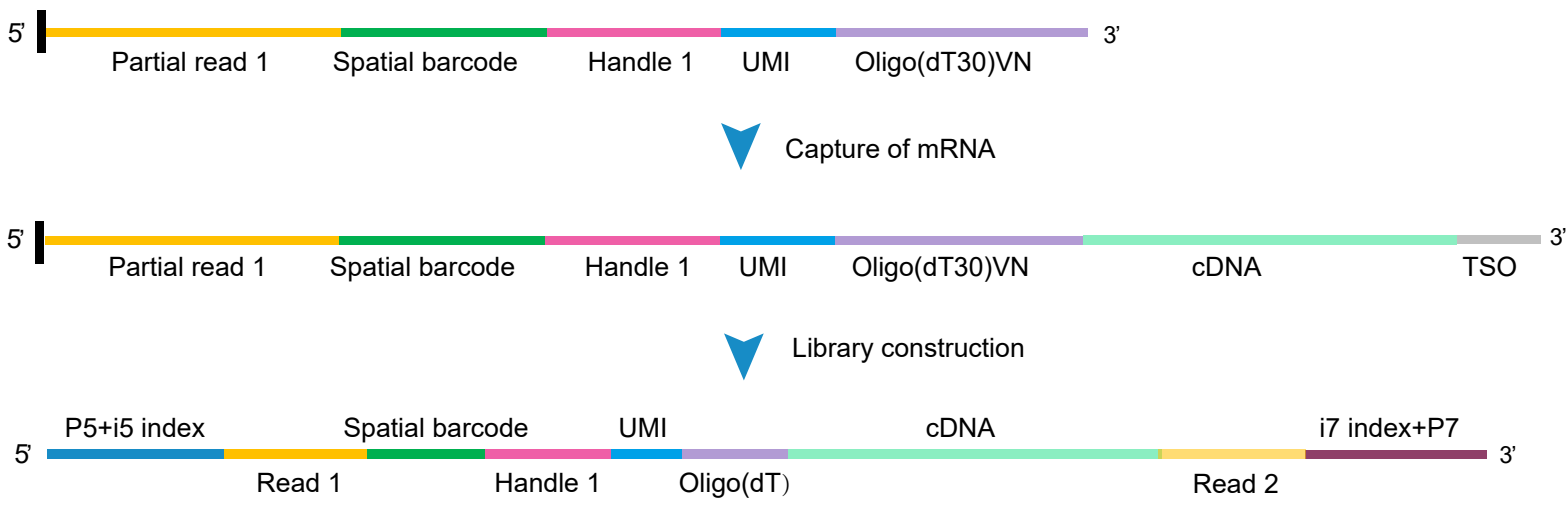
The HLST array of 10 mm x 7.0 mm consists of ~63k 30 µm spatially-barcoded areas and the data is binned to 30 µm for visualization and analysis.

## 3. MobiNova-HLST Spatial Gene expression assay workflow



**Figure 3. MobiNova-HLST Spatial Gene expression assay workflow.** MobiNova-HLST is compatible with H&E staining of fresh frozen (FF) tissues on standard glass slides using common histological workflows. This strategy provides the flexibility to image and select target samples for large visualization. MobiNova-HLST assay consists of sample preparation, tissue imaging, capture of mRNA, library construction, sequencing and data visualization.

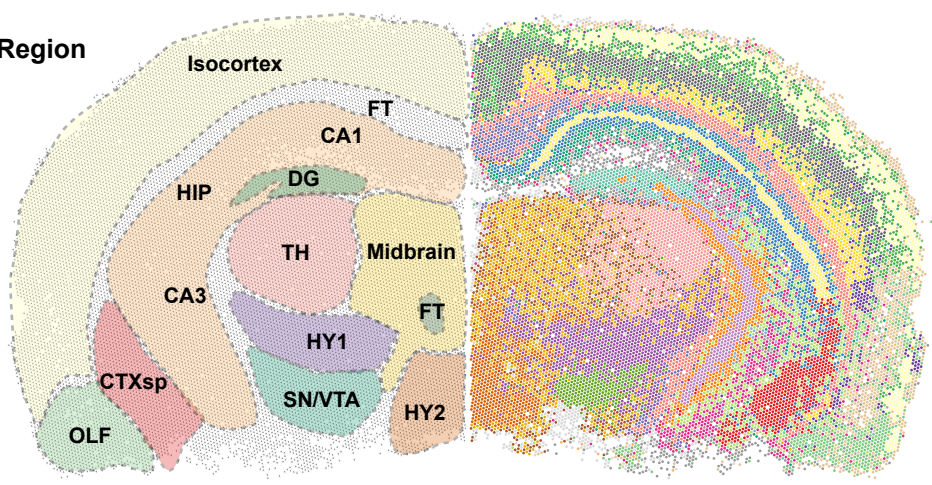
# 1. Library structure



# 2. Spatial Atlas of Mouse Brain(10mm x 7mm)

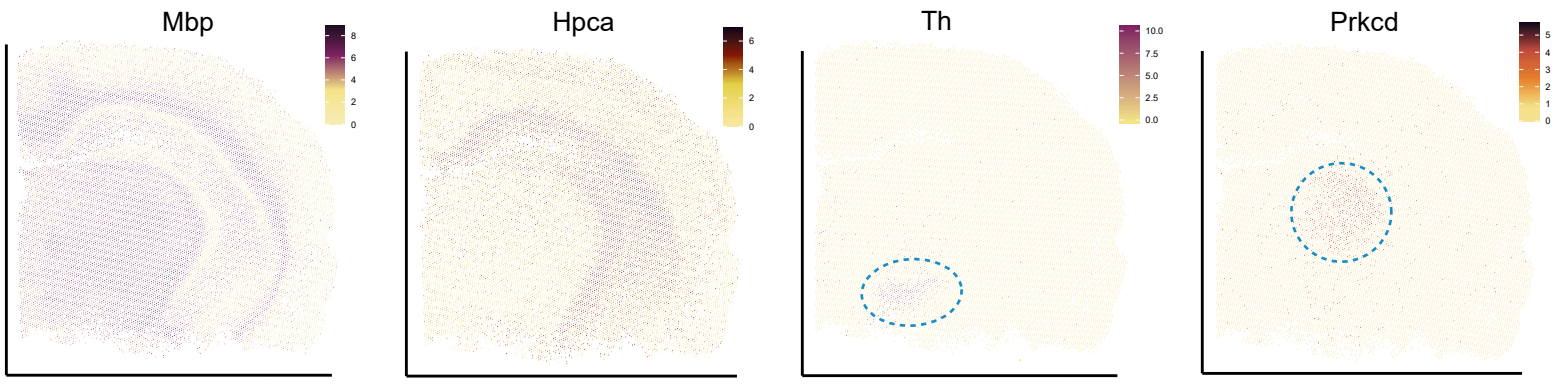
Spatial Atlas of Mouse Brain

- A: Isocortex
- B: Hippocampal Region
- C: CA1
- D: CA3
- E: FT
- F: Olfactory area
- G: CTXsp
- H: Midbrain
- I: TH
- J: HY1
- K: HY2
- L: SN/VTA



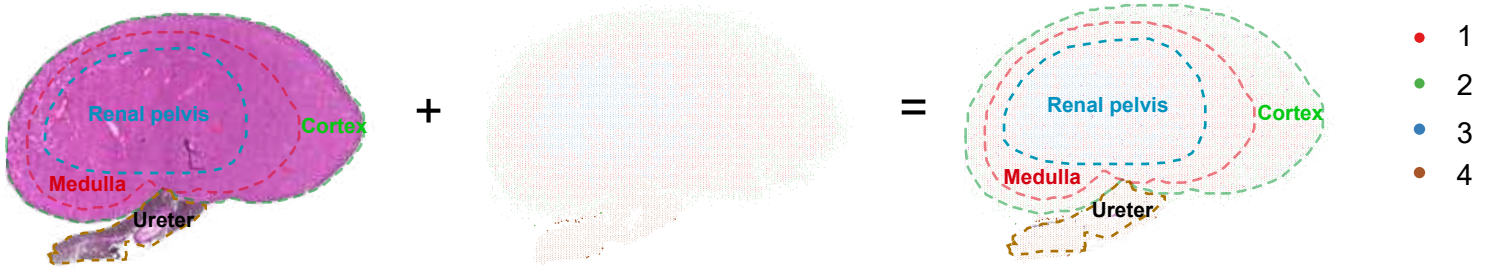
- 1 • 15
- 2 • 16
- 3 • 17
- 4 • 18
- 5 • 19
- 6 • 20
- 7 • 21
- 8 • 22
- 9 • 23
- 10 • 24
- 11 • 25
- 12 • 26
- 13 • 27
- 14 • 28

# 3. Region-specific genes with mouse brain



# 4. Spatial Atlas of Mouse Kidney(10mm x 7mm)

Spatial Atlas of Mouse Kidney



- 1
- 2
- 3
- 4





# MOBIDROP



## Mission

Develop life science research tools with cutting-edge and inter-disciplinary technologies that help break life-science boundaries and improve human lives.



## Values

Integrity • Can-do Spirit • Ownership • Curiosity • Perseverance • Excellence

## CONTACT US

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