Research

mirxes | genomics

Spatial Transcriptomics + Meta-Transcriptomics

Stereo-seq™ FFPE

Spa**T**ial **E**nhanced **RE**solution **O**mics-**seq**uencing for
Formalin-**F**ixed **P**araffin-**E**mbedded samples

Expanded Versatility and Boosted Spatial Capabilities at Unchanged Subcellular Resolution

Stereo-seq FFPE retains the advantages of Stereo-seq *(subcellular resolution and large field of view)*, while expanding the application to FFPE tissues.

The novel Stereo-seq FFPE chip utilizes spatially-barcoded **random probes** to efficiently capture mRNA, lncRNA and microbial RNA *in situ*. Coding and non-coding RNA are spatially profiled at nanoscale resolution to reveal unprecedented insights.

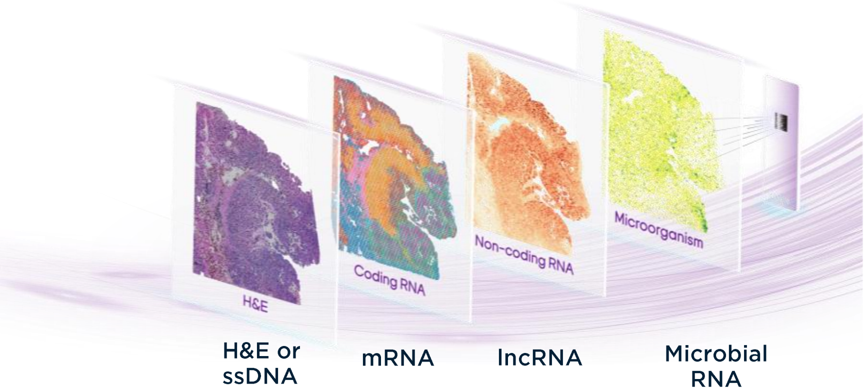


Image adapted from STOmics Tech

Single Tissue Section, Multiple Information Layers

Mirxes Genomics offers Stereo-seq FFPE as an **end-to-end** service, from tissue sectioning to bioinformatics tertiary analysis.

As an experienced Stereo-seq service provider, Mirxes Genomics is well-poised to continue supporting researchers in their spatial biology endeavours.

Spatially Resolved Capture of mRNA, lncRNA and Microbial RNA

- Random probes used
- Species-agnostic application

Nanoscale Resolution to Uncover Subcellular Insights

- 220nm spot size
- 400 spots per 100µm^2 cell

Large Field of View for Panoramic Architecture

- 1cm x 1cm chip

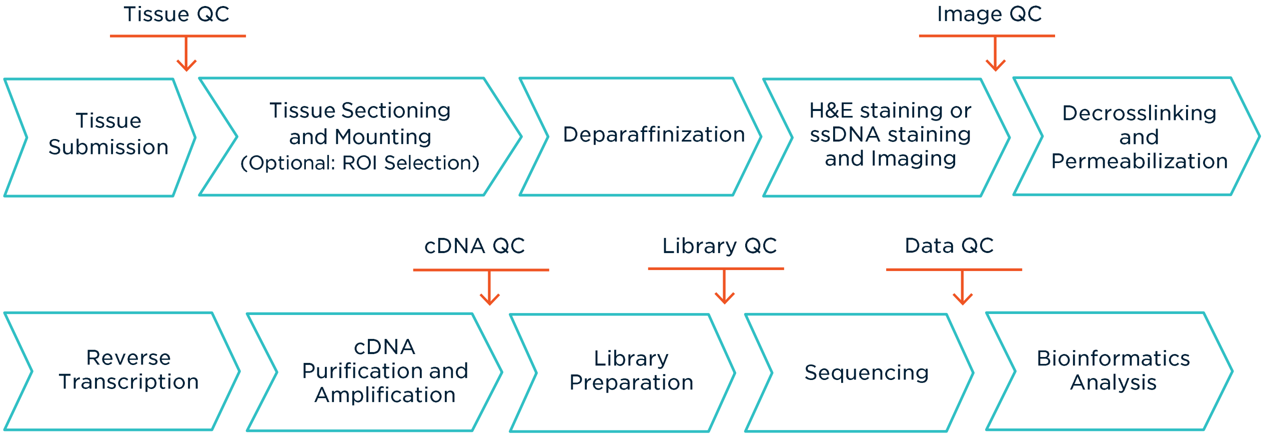
Expert Bioinformatics Support

- Pre-project planning
- Customizable tertiary analysis

Full White Glove End-to-end Service

- Experience with various tissues and organisms
- H&E staining on the same tissue section available

Spatial Transcriptomics (FFPE) Service Workflow


Tissue QC
Image QC
Tissue Submission
Tissue Sectioning and Mounting (Optional: ROI Selection)
Deparaffinization
H&E staining or ssDNA staining and Imaging
Decrosslinking and Permeabilization
cDNA QC
Library QC
Data QC
Reverse Transcription
cDNA Purification and Amplification
Library Preparation
Sequencing
Bioinformatics Analysis

Sample Type	**Available chip sizes and recommended data quantity# per chip**	**Sequencing Platform**	**Turnaround Time**
FFPE Sample*	1 cm x 1 cm (3 billion raw reads)	DNBSEQ-T7	4-6 weeks from successful **tissue sectioning and mounting** to FASTQ delivery

* No extra section required for tissue permeabilization optimization
\# The actual data output depends on sample quality

Bioinformatics Analysis and Support

Primary Analysis Package (Included)

- FastQ Files
- Stained Tissue Image(s)
- Barcode to Position Mapping File
- QC Statistics

Secondary Analysis Package (Add-on)

- QC statistics and Spatial Barcodes Maps
- Sequence Alignment Maps
- Gene Count Matrix

Additional Tertiary Analysis (Add-on)

Host and microbial

- Spatial Gene Expression Cluster Analysis
- Spatial Copy Number Variation
- Trajectory Inference
- Cellular Neighbourhood Analysis
- Co-localization Analysis
- **Many other options upon request!**

Contact Us

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Stereo-seq FFPE Brochure - LB-1362_r00