# Stereo-CITE Proteo-Transcriptomics Set **User Guidance**

01 Introduction

STOmics Stereo-CITE Proteo-Transcriptomics Set is intended to simultaneously detect the whole transcriptome and high-plex protein on the same tissue section. Built upon DNA Nanoball (DNB) technology, STOmics Stereo-CITE Proteo-Transcriptomics Set enables a "tissue-to-data" solution through in situ capture of the whole transcriptome and high-plex protein markers at nanoscale resolution and centimeter-sized field of view (FOV). The Stereo-seq Chip T (poly-T-based chip) is loaded with capture probes containing spatial coordinate information. Through a series of biochemical processes, the probes can capture mRNA molecules and antibody-derived tags (ADTs) in situ within the tissue, then through cDNA synthesis, and obtain transcriptome plus multi-protein spatial distribution information of the entire tissue through sequencing and a complementary visualization platform.

## 02 Workflow

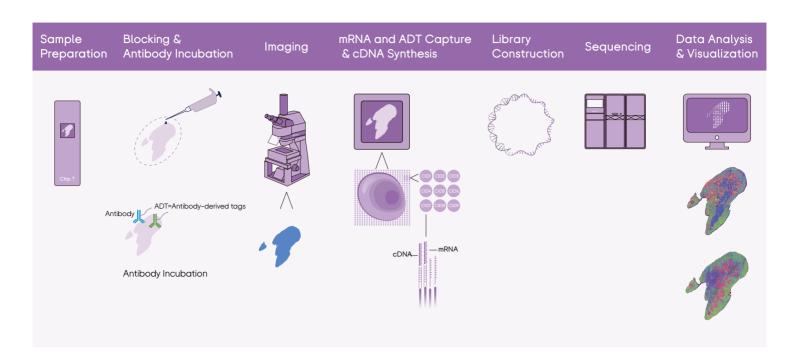
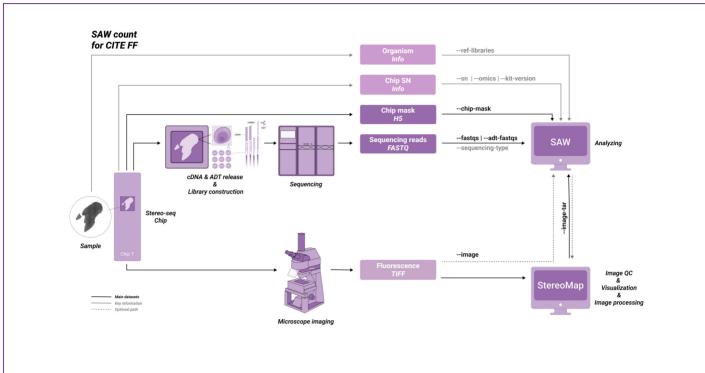


Figure 1 Stereo-CITE Proteo-Transcriptomics Set V1.1 Workflow



### Figure 2 Overview of Stereo-CITE Proteo-Transcriptomics Set V1.1 Data Analysis Workflow 03 Resources Index Step **Document Title and Description** Link Stereo-CITE Proteo-Transcriptomics Set User Guidance https://en.stom-**Experiment** ics.tech/re-Preparation Document No.: STUM-UG005 sources/docu-This guidance aims to give the user a general view of the ments/list.html Stereo-CITE Proteo-Transcriptomics Set V1.1, with the overview of whole experiment workflow and index of resources to support the users' in-house experiments. **Microscope Assessment Guideline** Document No.: STUM-PE001 This manual aims to guide the users to determine a proper microscope for STOmics application, introducing the microscope hardware requirements as well as guidance of imaging acquisition and evaluation. Stereo-seq Chip Slide Operation Guide for Receiving, Handling and Storing This manual provides receiving, handling and storing guidance of the Stereo-seq Chip Slide. **Experiment Checklist For Stereo-CITE Proteo-Transcriptomics Set V1.1** This manual provides a detailed checklist for Stereo-CITE Proteo-Transcriptomics Set V1.1 workflow in terms of different experiment stages. Sample Preparation Guide for Fresh Frozen Samples on Stereo-seq Chip Slides Document No.: STUM-SP001 This manual aims to guide the users in fresh frozen samples preparing for Stereo-seq Transcriptomics Solution V1.3 for mIF applications. Stereo-seg Permeabilization Set for Stereo-CITE Permeabilization Optimization and **Proteo-Transcriptomics Application User Manual Transcriptomics** Document No.: STUM-PR004 This manual aims to guide the users in permeabilization Workflow optimization for specific samples that are used for Stereo-CITE Proteo-Transcriptomics applications. Stereo-CITE Proteo-Transcriptomics Set User Manual Document No.: STUM-TT005 This manual provides a standard operation guidance for Stereo-CITE Proteo-Transcriptomics applications. This manual is suitable for Stereo-seq Chip T Slide(1cm \* 1cm). Stereo-CITE Proreo-transcriptomics Library Preparation User Library Manual Preparation Document No.: STUM-LP003 and Sequencing This manual aims to provide guidance for the whole-transcriptome library construction from cDNA and ADT products obtained via Stereo-CITE Proreo-transcriptomics workflow. **Related Sequencing Manuals** https://www.completegenom-CG DNBSEQ-T7RS Stereo-seq Visualization Reagent Set ics.com/docu-Instructions for Use mentation/ CG DNBSEQ-G400RS Stereo-seq Visualization Reagent Set Instructions for Use MGI DNBSEQ-T7RS Stereo-seq Visualization Reagent Set https://en.mgi-Instructions for Use tech.com /download MGI DNBSEQ-G400RS Stereo-seq Visualization Reagent Set /files/ Instructions for Use StereoMap User Manual https://en.stomics. **Data Analysis** tech/service StereoMap is a desktop application designed to provide the /stereoMap essential analysis functionality you need to explore your -operation Stereo-seq data interactively. This manual provides guidance -manual.html

provides guidance in using SAW.

**04 Revision History** 

Description: Initial release

Version: A

Date: Mar. 2025

combined with microscope images, to generate spatial feature expression matrices. Analysts can use the output files as a starting point to perform downstream analysis. This manual

in using StereoMap.

**SAW User Manual** 

Stereo-seg Analysis Workflow (SAW) software suite is a set of

location on the tissue section, quantify spatial feature expression,

pipelines bundled to map sequenced reads to their spatial

and visually present spatial expression distribution. SAW processes the data from the Stereo-seq sequencing platform,

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