protocols.io

DEC 19, 2023

Protocol status: Working
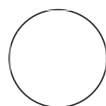We use this protocol and it's
working

Created: Nov 30, 2023

🌐 Visium Direct Mount Fresh Frozen -- University of Minnesota TMCs

Laura J Niedernhofer[1], David A Bernlohr[1]

[1]University of Minnesota, Minneapolis, MN

Cellular Senescence Network (SenNet) Method Development
Community

Allie Pybas

ABSTRACT

The Visium Spatial Gene Expression Solution measures the total mRNA in tissue
sections and requires a Visium Spatial slide with intact tissue sections as input. This
protocol outlines methanol fixation, Hematoxylin & Eosin (H&E) staining, and
imaging of tissue for use with 10x Genomics Visium Spatial protocols. Fixed and
stained tissue sections are inputs for the downstream Visium Spatial Tissue
Optimization and Visium Spatial Gene Expression workflows.

Tissue sections are processed with Visium Spatial Gene Expression assay
performed by the University of Minnesota Imaging Center and sequenced by the
University of Minnesota Genomics Center.

Tissue Optimization

1   ☐ CG000238 Rev E 10x FF Visium Spatial Tissue Optimization.pdf 4.4MB

Fixation, H&E Staining & Imaging

2   ☐ CG000160 Rev C 10x FF Visium Methanol Fixation and HE Staining.pdf 1.2MB

Library Preparation & Sequencing

3   ☐ CG000239 RevF 10x FF Visium Spatial Gene Expression User Guide.pdf 6.6MB

> **Note**
>
> Illumina NovaSeq 6000 with read format 28/10/10/90

FASTQ Generation

4   BCL data from Illumina sequencer is demultiplexed and converted into FASTQ format using bcl2fastq version 2.20.0