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10x Protocols: Chromium Next GEM Single Cell 5' -- University of Minnesota TMCsTMCs (CG000331 Rev E) V.1

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Cellular Senescence Net...

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

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Abstract

Following single-cell dissociation or nuclei isolation, the Next GEM 5' assay uses microfluidics to partition and assign cell- or nuclei-specific barcodes to transcript cDNA at the 5' end. Barcoded cDNA is prepared with adaptors for sequencing by synthesis (SBS). The following protocol has been used at the University of Minnesota TMCs in collaboration with the University of Minnesota Genomics Center. The following protocol has been adapted from protocols developed by 10x Genomics and Illumina to be used at the University of Minnesota TMCs in collaboration with the University of Minnesota Genomics Center. These protocols are owned by their respective companies and are subject to periodic revision.

Troubleshooting

Tissue Preparation

1 Complete single cell or nuclei isolation prior to starting this protocol

Library Preparation

2 CG000331_Rev-E.pdf 4.3MB

Note

Sequence with the read format 29,10,10,89

Note

Sequencers used at UMN Genomics Center:
- Illumina NextSeq 2000
- Illumina NovaSeq 6000
- Illumina NovaSeq X Plus

FASTQ Generation

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