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Single Cell Multiomics protocol for processing gDNA and mRNA

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Anala V. Shetty^{1,2}, Clifford J. Steer^{1,2,3}, Walter C. Low^{1,2,4}

¹Molecular, Cellular, Developmental Biology, and Genetics Graduate Program, University of Minnesota, Minneapolis, MN, USA;

²Stem Cell Institute, University of Minnesota, Minneapolis, MN, USA;

³Division of Gastroenterology, Hepatology and Nutrition, Department of Medicine, University of Minnesota, Minneapolis, MN, USA;

⁴Department of Neurosurgery, University of Minnesota, Minneapolis, MN, USA



Anala V. Shetty

University of Minnesota

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Protocol status: Working

We use this protocol and it's working.

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Keywords: single cell, multiomics approach, gDNA, mRNA, single cell gDNA, single cell mRNA, replication timing of single cell, gdna protocol, cdna from single cell, processing gdna, gdna, affordable single cell, cdna part of the protocol, replication timing, processing mrna, compatible with replication, mrna, smartseq2 technique, replication, standalone protocol

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Abstract

Here, we developed an affordable single cell (sc)-multiomics approach to simultaneously extract and process gDNA and cDNA from single cells. The gDNA protocol can also be used as a standalone protocol. The cDNA part of the protocol was adopted from G&T (Macaulay et al. 2016) and uses the SMARTSeq2 technique for processing mRNA (Picelli et al. 2014). The gDNA was used to deduce copy number variation and replication timing of single cells. in cell lines. The gDNA protocol was compatible with replication timing computational pipelines like Kronos sc-RT (Gnan et. al 2022) and sc-Repliseq (Miura et. al 2020).

Attachments



[single cell gDNA pro...](#)

675KB



[single cell cDNA pro...](#)

661KB

