



APR 01, 2024

OPEN ACCESS



DOI:

dx.doi.org/10.17504/protocols.io.8epv5r6x5g1b/v1

Protocol Citation: Nicolas Martin 2024. Protocol for Nuclei Isolation and Automated 10X Genomics Single Cell 5' Gene Expression for Human Ovary Explants.

protocols.io

<https://dx.doi.org/10.17504/protocols.io.8epv5r6x5g1b/v1>

License: This is an open access protocol distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

Protocol status: Working

We use this protocol and it's working

Protocol for Nuclei Isolation and Automated 10X Genomics Single Cell 5' Gene Expression for Human Ovary Explants

Forked from [Hybrid protocol for Nuclei Isolation and 10X Genomics Single Cell 5' Gene Expression for Human Ovary Explants](#)

Nicolas Martin¹

¹Buck Institute for research on Aging



Nicolas Martin

Buck Institute for Research on Aging

DISCLAIMER

This protocol needs prior approval by the users' institutional review board (IRB) or equivalent ethics committee(s).

ABSTRACT

This is the 10X Genomics Automated Single Cell 5' Gene Expression protocol using nuclei suspension isolated from fresh frozen human ovary explants. The Chromium Connect (PN-1000171) was used from Gem generation to final gene expression libraries.

PROTOCOL REFERENCES

The following protocols from 10X Genomics were used for the different steps:

Nuclei Isolation: CG000505 REV A

Chromium Next GEM Automated Single Cell 5' Reagent Kits v2: CG000384 Rev D

GUIDELINES

This protocol needs prior approval by the users' institutional review board (IRB) or equivalent ethics committee(s).

MATERIALS

Refers to the various protocol documents for a complete list of the materials required.

Created: Mar 28, 2024

Last Modified: Apr 01, 2024

PROTOCOL integer ID: 97505

Nuclei Isolation Protocol for Human Ovary Explants

- 1 Chapter 1—Single Cell Gene Expression & Chromium Fixed RNA Profiling of the protocol CG000505 REV A was used to isolate nuclei from frozen human ovary explants with the following modifications: 1) a cordless motor pestle (VWR, Catalog number 47747-370) was used for Step f, Page 30 and 2) the samples were incubated for 15 min on ice for Step h, Page 30.

<https://www.10xgenomics.com/support/single-cell-gene-expression/documentation/steps/sample-prep/chromium-nuclei-isolation-kit-sample-prep-user-guide>

Chromium Next GEM Automated Single Cell 5' Reagent Kits v2

- 2 The Protocol CG000384 Rev D was used to generate gene expression libraries from nuclei suspension inputs.

<https://www.10xgenomics.com/support/instruments/chromium-connect/chromium-next-gem-automated-single-cell-5-reagent-kits-user-guide-v-2-chemistry>