

Jan 18, 2026

iPSC karyotyping

 Forked from [iPSC karyotyping](#)

DOI

<https://dx.doi.org/10.17504/protocols.io.36wgq13pkvk5/v1>

Yu Chen¹

¹National Human Genome Research Institute



Ellen Hertz

National Institutes of Health

Create & collaborate more with a free account

Edit and publish protocols, collaborate in communities, share insights through comments, and track progress with run records.

Create free account

OPEN  ACCESS



DOI: <https://dx.doi.org/10.17504/protocols.io.36wgq13pkvk5/v1>

Protocol Citation: Yu Chen 2026. iPSC karyotyping. protocols.io <https://dx.doi.org/10.17504/protocols.io.36wgq13pkvk5/v1>

Manuscript citation:

Bidirectional regulation of glycoprotein nonmetastatic melanoma protein B by β -glucocerebrosidase deficiency in GBA1 isogenic dopaminergic neurons from a patient with Gaucher disease and parkinsonism
Chase Chen, Charis Ma, Richard Sam, Jens Lichtenberg, Tiffany Chen, Ying Hao, Ziyi Li, Isabelle Kowal, Kate Andersh, Yue Andy Qi, Gani Perez, Ellen Hertz, Yan Li, Darian Williams, Mark J. Henderson, Morgan Park, Xuntian Jiang, Pilar Alvarez Jerez, Cornelis Blauwendraat, Ellen Sidransky, Yu Chen.
doi: <https://doi.org/10.1101/2025.06.23.661126>

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

Created: January 18, 2026

Last Modified: January 18, 2026

Protocol Integer ID: 238866

Keywords: ASAPCRN, human pluripotent stem cell, sample preparation, standard procedure, standard karyotyping service, ipsc, protocol

Funders Acknowledgements:

Aligning Science Across Parkinson's

Grant ID: ASAP-000458

Abstract

This protocol describe how iPSCs were prepared for standard Karyotyping service

Materials

	A	B	C
	Item	Vendor	Catalog #
	StemFlex medium	Thermo Fisher	A3349401
	Y-27632	R&D Systems	1254
	Colcemid	Roche	10295892001



iPSC Preparation for Karyotyping

30m

- 1 Wash iPSCs with PBS
- 2 Dissociate iPSC with Accutase 4-5 min at 37 C
- 3 Count cells and seed at 1×10^6 cells/well in 6 well plates in StemFlex with 10 μ M Y-27632
- 4 Incubate 24 hours at 37 C
- 5 Treat cells with Colcemid (1:100, Roche, 10295892001) for 12 hours.
- 6 Treated iPSCs were transferred to NHGRI Cytogenetics Core for karyotyping.

30m