

Apr 06, 2023

Human neuroblastoma cell line SH-SY5Y culturing

DOI

<https://dx.doi.org/10.17504/protocols.io.ewov1ow42lr2/v1>

Qing Wang^{1,2}

¹Massachusetts General Hospital; ²Aligning Science Across Parkinson's (ASAP) Collaborative Research Network



Jackson Schumacher

Massachusetts General Hospital

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.ewov1ow42lr2/v1>

Protocol Citation: Qing Wang 2023. Human neuroblastoma cell line SH-SY5Y culturing. **protocols.io**

<https://dx.doi.org/10.17504/protocols.io.ewov1ow42lr2/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

Created: April 06, 2023



Last Modified: December 12, 2024

Protocol Integer ID: 80145

Keywords: ASAPCRN, culturing human neuroblastoma sh, human neuroblastoma cell line sh, human neuroblastoma sh, sy5y cell, sy5y

Funders Acknowledgements:

From cancer associations to altered immunity in the pathogenesis of Parkinson's disease

Grant ID: ASAP-000312

Abstract

This is the brief protocol for seeding and culturing human neuroblastoma SH-SY5Y cells.



- 1 1. SH-SY5Y cells (ATCC, Manassas, VA, USA, Cat# CRL-2266, RRID:CVCL_0019) were seeded at 70-80% density.
- 2 2. Change medium to DMEM/F12 supplemented with 15% FBS, 1% penicillin-streptomycin and 10 μ M retinoic acid (11320-033, Gibco) for differentiation for four days

Protocol references

Xicoy, H., Wieringa, B., & Martens, G. J. (2017). The SH-SY5Y cell line in Parkinson's disease research: a systematic review. *Molecular neurodegeneration*, 12, 1-11.

Encinas, M., Iglesias, M., Liu, Y., Wang, H., Muhaisen, A., Cena, V., ... & Comella, J. X. (2000). Sequential treatment of SH-SY5Y cells with retinoic acid and brain-derived neurotrophic factor gives rise to fully differentiated, neurotrophic factor-dependent, human neuron-like cells. *Journal of neurochemistry*, 75(3), 991-1003.