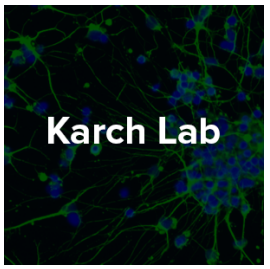
Feb 26, 2019

Differentiation of NPC into cortical neurons



In 1 collection

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

Created: February 17, 2019

Last Modified: February 26, 2019

Protocol Integer ID: 20483

Attachments

PDF

IPSC CORTICAL DIFFER...

179KB

Guidelines

This protocol is part of the **IPSC CORTICAL DIFFERENTIATION** collection.

This method should be performed using sterile technique.

Materials

Please refer to the attached full manuscipt for requried materials.

Safety warnings

Please refer to the SDS (Safety Data Sheet) for information about hazards, and to obtain advice on safety precautions.

Before start

IMPORTANT: To generate cortical neurons, NPCs must be at passage 4 or lower at the time of plating for terminal differentiation. NPCs that are beyond passage 4 may exhibit higher densities of astrocyte contamination or inefficient neuronal differentiation.

1 Ensure cells are plated at an appropriate density (e.g.: 150K/well in 12-well plate; 75-50K/well for 48 well plates; 30K/well for 8-well chamber slides) in NIM on pre-coated PLO/laminin plates.

2 After 24:00:00 , replace with cortical neuron differentiation medium (Neurobasal medium, 1x B27, 20 ng/mL BDNF, 20 ng/mL GDNF, 0.5mM cAMP, 1% Glutamax, 1% penicillin/streptomycin)

3 Feed cells every 2-3 days for 30 days.