User Guide

ELIXIRGEN SCIENTIFIC

Quick-Neuron™ Sensory - Maintenance Medium

Catalog Number: SS-MM

Introduction

Quick-Neuron™ Sensory - Maintenance Medium may be used for the long-term maintenance of human pluripotent stem cell-derived sensory neurons following differentiation as outlined in the Quick-Neuron™ Sensory - mRNA Kit and Human iPSC-derived Neurons user guides. Quick-Neuron™ Sensory differentiated cell cultures display typical neurite outgrowth and express a variety of neuronal markers, such as tubulin beta 3 class III (TUBB3) and variety of sensory neuron markers such as peripherin (PRPH), islet-1 (ISL1), and brain-specific homeobox/POU domain protein 3A (BRN3A/POU4F1). When handled and maintained according to the instructions in this user guide, sensory neurons are viable long-term and are suitable for a variety of characterization and neurotoxicity assays.

Scale: The Quick-Neuron™ Sensory - Maintenance Medium provides sufficient medium for 4 wells of a 24-well plate for up to 2 weeks.

Related Products: Quick-Neuron™ Sensory - mRNA Kit, Catalog Number: SM-mRNA

Kit Contents

Upon receipt, store the reagents at the temperatures indicated in the table below. All reagents are shipped on dry ice.

Reagents	Amount	Storage Conditions
Component N	840 µl	-20°C or -80°C
Component S1	20 µl	-20°C or -80°C
Component P	14 µl	-20°C or -80°C

Required Consumables

Item	Vendor	Catalog Number
DMEM/F12	ThermoFisher	21331020
Neurobasal Medium	ThermoFisher	21103049
Glutamax (100x)	ThermoFisher	35050061
Penicillin-Streptomycin	ThermoFisher	15140122

Conditions of Use

This product is for research use only. It is not approved for use in humans or for therapeutic or diagnostic use.

Technical Support

For technical support, please contact us at cs@elixirgensci.com or call +1 (443) 869-5420 (M-F 9am-5pm EST).

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Media Preparation

Medium N(S1)

1. Prepare Medium N(S1) using the reagents listed in the table below.
    - Thaw Component N on ice for 20-30 minutes.
    - Warm all other reagents at room temperature for 20-30 minutes.
2. Store Medium N(S1) for up to 2 weeks at 4°C. The leftover reagents can be discarded or saved for other uses.

Medium N(S1) Reagents	Volume
DMEM/F12	8 ml
Neurobasal Medium	8 ml
200 mM Glutamax (100x)	84 µl
Penicillin-Streptomycin (10000 units/ml; 100x)	168 µl
Component N	520 µl
Component S1	16.8 µ

Medium N(S1P)

1. Prepare Medium N(S1P) using the reagents listed in the table below.
    - Thaw Component P at room temperature for 20-30 minutes.

Medium N(S1P) Reagents	Volume
Medium N(S1)	7 ml
Component P	3.5 µl

2. Store Medium N(S1P) for up to 2 weeks at 4°C.
    - The leftover Component P can be discarded or saved for another use.

First Week

1. Warm Medium N(S1P) at room temperature for 20-30 minutes.
2. Pipet out most of the old medium, but not completely (i.e., just enough to cover the surface of the well), from each well using a P1000 pipettor and add 800 µl Medium N(S1P) along the wall of the well very slowly.
3. Incubate the cultures at 37°C, 5% CO_2 for 2 days.
4. For subsequent medium changes, pipet out half (400 µl) of the old medium from each well using a P1000 pipettor and add 400 µl Medium N(S1P).
5. Repeat Step 4 every 2-3 days such as on Monday, Wednesday, and Friday for 1 week.

Second Week

1. Warm Medium N(S1) at room temperature for 20-30 minutes.
2. Pipet out most of the old medium, but not completely (i.e., just enough to cover the surface of the well), from each well using a P1000 pipettor and add 800 µl Medium N(S1) along the wall of the well very slowly.
3. Incubate the cultures at 37°C, 5% CO_2 for 2 days.
4. For subsequent medium changes, pipet out half (400 µl) of the old medium from each well using a P1000 pipettor and add 400 µl Medium N(S1).
5. Repeat Step 4 every 2-3 days such as on Monday, Wednesday, and Friday for 1 week.