

# Quick-Neuron™ Cholinergic Maintenance Medium

Catalog Number: EXGS-QNCM

## User Manual

This kit (EXGS-QNCM) contains 1 set of reagents for use with a total of 4 wells of a 24-well plate for 2 weeks

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## I. Introduction

Thank you for purchasing the Quick-Neuron™ Cholinergic Maintenance Medium. This kit is intended for use after completing the protocol of the Quick-Neuron™ Cholinergic kit (Catalog Number: EXGS-QNC, EXGS-QNCSV). The Quick-Neuron™ Cholinergic kit allows users to differentiate human pluripotent stem cells (hPSCs), including embryonic stem cells (ESCs) and induced pluripotent stem cells (iPSCs), into tubulin beta 3 class III (TUBB3) and choline acetyl-transferase (ChAT)-positive neurons within one week. To extend your culture of cholinergic neurons beyond one week, we recommend culturing the cholinergic neurons with Quick-Neuron™ Cholinergic Maintenance Medium. The kit provides sufficient cholinergic neuron maintenance medium for 4 wells of a 24-well plate for up to 2 weeks (Cat. Number: EXGS-QNCM).

## II. Kit Contents

Upon receipt of this kit, immediately store all reagents at their proper storage temperatures as described in the table below. All reagents are shipped on dry ice.

List of Components		
Reagents	Amount	Storage Conditions
Component N	840 µl	-20 °C
Component B	16 µl	-20 °C
Component K	25 µl	-20 °C

## III. Additional Materials Required

The following materials are needed but not supplied with this kit:

- DMEM/F12 (e.g., ThermoFisher, Catalog Number: 21331-020)
- Neurobasal (e.g., ThermoFisher, Catalog Number: 21103049)
- Glutamax (100x) (e.g., ThermoFisher, Catalog Number: 35050061)
- Penicillin-Streptomycin (e.g., ThermoFisher, Catalog Number: 15140-122)

## IV. Pre-Protocol Preparation

- Prepare a neural maturation medium by mixing following reagents after thawing Component N at 4°C overnight. The medium is called Medium N and stable for up to 2 weeks when stored at 4°C.

No.	Reagent	Volume
1	DMEM/F12	12 ml
2	Neurobasal	12 ml
3	200 mM Glutamax (100x)	125 µl
4	Penicillin-Streptomycin (10000 units/ml; 100x)	250 µl
5	Component N	775 µl

## V. Protocol

### Day 1

1. Warm Medium N at room temperature for 20-30 minutes.
2. Thaw Component B on ice and Component K at room temperature for 20-30 minutes.
3. Take 15 ml Medium N into a tube and add 15  $\mu$ l Component B and 15  $\mu$ l Component K to it. Mix them well. This medium is referred to as Medium N(BK) and is stable for up to 2 weeks at 4°C.
4. Pipet out all old medium from each well using a P1000 pipettor and add 800  $\mu$ l Medium N(BK) to it.
5. Incubate the cultures at 37°C, 5% CO<sub>2</sub> for 2 days.

### Day 3-14

1. Warm Medium N(BK) at room temperature for 20-30 minutes.
2. Pipet out half (400  $\mu$ l) of the old medium from each well using a P1000 pipettor and add 400  $\mu$ l Medium N(BK) to it.
3. Incubate the cultures at 37°C, 5% CO<sub>2</sub> for 2 days.
4. Repeat steps 1-3 every 2 days.

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Category	Product	Request Quote (Catalog number)		
		SeV Complete Kit	mRNA Complete Kit	Maintenance Medium
Quick-Tissue™ Series Differentiation Kit (mainly for 4 wells of 24-well plate)	Quick-Endothelium™ Vascular with Optional Drug Selection		\$399 (EXGS-QEV)	\$229 (EXGS-QEVM)
	Quick-Trilineage™ Differentiation Kit*	\$549 (EXGS-Q3D)		
	Quick-Neuron™ Mixed	\$349 (EXGS-QNMSV)		\$129 (EXGS-QNMM)
	Quick-Neuron™ Cholinergic	\$349 (EXGS-QNCSV)	\$299 (EXGS-QNC)	\$129 (EXGS-QNCM)
		\$999 (EXGS-QNCSV96)**		
	Quick-Neuron™ Dopaminergic	\$399 (EXGS-QNDSV)	\$399 (EXGS-QND)	\$169 (EXGS-QNDM)
	Quick-Neuron™ GABAergic	\$399 (EXGS-QNGSV)	\$399 (EXGS-QNG)	\$149 (EXGS-QNGM)
	Quick-Muscle™ Skeletal	\$349 (EXGS-QMSSV)		\$129 (EXGS-QMSM)
	Quick-Hepatocyte™	\$499 (EXGS-QHSV)		\$149 (EXGS-QHM)
	Quick-miniBrain™	\$999 (EXGS-QMBSVMR)		

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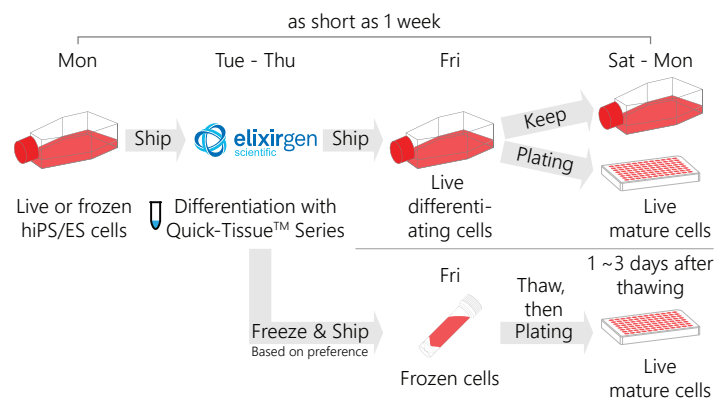
\* This kit provides 2 wells per each tissue (total 6 wells of 24-well plate)

\*\* This kit is for 48 wells of a 96-well microplate format

Category	Product	Size	Request Quote (Catalog number)
Quick-Tissue™ Series Differentiation Support	Quick-Tissue™ Mesendoderm Booster	8 wells of 24-well plate	\$99 (EXGS-QTMB)
	Quick-Tissue™ Adaptation Kit	a 35-mm dish or 1 well of 6-well plate	\$169 (EXGS-QTA1)
	New product coming soon!		
Reagents for Maintaining Undifferentiated Stem Cells	Ajinomoto StemFit® Basic02	500 mL	Ask (EXGS-ASB02)
	Nippi iMatrix-511 silk	175 µg x 6 tubes	Ask (EXGS-NI511S)
	Nippi iMatrix-511	175 µg x 6 tubes	\$690 (EXGS-NI511)

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## Quick-Tissue™ Stem Cell Differentiation Services



Elixirgen Scientific provides pluripotent stem cell differentiation services with the world's fastest turnaround time. Customers can simply ship live iPS/ES cells in a T-25 flask and will receive live or frozen cells in a week (express service) or two weeks (regular service). Contact [services@elixirgenscientific.com](mailto:services@elixirgenscientific.com) for more details to customize for your project. Currently Elixirgen Scientific offers all tissue types from kits for cell differentiation services. More tissue types are coming soon!