User Guide

Quick-Muscle™ Skeletal - Maintenance Medium

Catalog Number: SM-MM

Introduction

Quick-Muscle™ Skeletal - Maintenance Medium may be used for the long-term maintenance of human pluripotent stem cell-derived skeletal muscle cells following differentiation as outlined in the Quick-Muscle™ Skeletal - SeV and mRNA Kit user guides. Quick-Muscle™ Skeletal differentiated cell cultures display typical skeletal muscle morphology and markers, such as myosin heavy chain (MHC). When handled and maintained according to the instructions in this user guide, skeletal muscle cells are viable long-term.

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

Related Products: Quick-Muscle™ Skeletal - SeV Kit, Catalog Number: SM-SeV
Quick-Muscle™ Skeletal - 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	Volume	Storage
Component M1	750 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
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 9 am-5 pm EST).

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Media Preparation

Medium M1

1. Prepare Medium M1 using the reagents listed in the table below.
    - Thaw Component M1 on ice or at 4°C for 1 hour.
    - All other reagents should be warmed at room temperature for 20-30 minutes.

Medium M1 Reagents	Volume
DMEM/F12	22.08 ml
200 mM Glutamax (100x)	230 µl
Penicillin-Streptomycin (10000 units/ml; 100x)	230 µl
Component M1	690 µl

2. Store Medium M1 for up to 2 weeks at 4°C.
    - The leftover Component M1 can be discarded or saved for another use.

Medium M1(P)

1. Prepare Medium M1(P) using the reagents listed in the table below.
    - Thaw Component P at room temperature for 20-30 minutes.

Medium M1(P) Reagents	Volume
Medium M1	7 ml
Component P	3.5 µl

2. Store Medium M1(P) 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 M1(P) at room temperature for 20-30 minutes until it no longer feels cold.
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 M1(P) 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 room temperature Medium M1(P).
5. Repeat Step 4 every 2-3 days such as on Monday, Wednesday, and Friday for 1 week.

Second Week

1. Warm Medium M1 at room temperature for 20-30 minutes until it no longer feels cold.
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 M1 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 room temperature Medium M1.
5. Repeat Step 4 every 2-3 days such as on Monday, Wednesday, and Friday for 1 week.