Tissue Cryopreservation Reagent Kit (MEDY)

Item No. 502885

www.caymanchem.com
Customer Service 800.364.9897
Technical Support 888.526.5351
1180 E. Ellsworth Rd · Ann Arbor, MI · USA

TABLE OF CONTENTS

GENERAL INFORMATION

Materials Supplied

Item No.	Item Name	Quantity/Size	Storage
44711	Methyl Cellulose	1 vial/1 g	RT
44724	Ethylene Glycol	1 vial/10 ml	RT
10005583	Y-27632 (hydrochloride)	1 vial/1 mg	-20°C

If any of the items listed above are damaged or missing, please contact our Customer Service department at (800) 364-9897 or (734) 971-3335. We cannot accept any returns without prior authorization.

WARNING: THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Safety Data

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

Precautions

Please read these instructions carefully before beginning this assay.

If You Have Problems

Technical Service Contact Information

Phone: 888-526-5351 (USA and Canada only) or 734-975-3888

Email: techserv@caymanchem.com

In order for our staff to assist you quickly and efficiently, please be ready to supply the lot number of the kit (found on the outside of the box).

Storage and Stability

This kit will perform as specified if stored as directed in the **Materials Supplied** section (see page 3) and used before the expiration date indicated on the outside of the box.

Materials Needed But Not Supplied

1. Cell culture-grade DMSO

INTRODUCTION

Description

The components of this kit can be combined to produce the small molecule cocktail MEDY. When mixed with the appropriate cell culture media, MEDY enables the cryopreservation of human brain tissue samples and neural organoids that retain pathological features after thawing.[1] Following a three-week pretreatment outlined by Xue *et al.*, this optimized cocktail mixed with week four maturation media enables reliable storage of diverse organoids and living brain tissues.

Each component in this kit is provided separately, and instructions are included to reconstitute these reagents for direct dilution into week four cell culture media. The kit is intended to supplement 100 ml of final media when following the supplied instructions. Some reagents may be provided in excess and may be properly disposed of after cell media preparation. Prior to use, reagents must be stored as indicated at -20°C.

PREPARATION

Reagent Preparation

Preparation of Individual Stock Solutions

1. The methyl cellulose is provided as a solid and may be added directly to media.
2. The ethylene glycol is provided as a neat liquid and may be added directly to media.
3. Prepare a 10 mM (1,000X) stock solution of Y-27632 by adding 312 µl of sterile DMSO to the vial and vortexing until fully dissolved. The Y-27632 solution may be diluted in cell culture media to a final concentration of 10 µM. *NOTE: This concentrated stock solution may be stored at -20C for up to one month, avoiding multiple freeze-thaw cycles.*

NOTE: Sterile filtration may be required upon dilution in media.

Preparation of Cryopreservation Media

1. The final cryopreservation media should contain 1% (w/v) methyl cellulose (or 1 g/100 ml), 10% (v/v) ethylene glycol, 10% DMSO, and 10 µM Y-27632.
2. Prepare 100 ml of cryopreservation media by combining 1 g of methyl cellulose, 10 ml of ethylene glycol, 10 ml of DMSO, and 100 µl of the 10 mM Y-27632 stock solution and diluting this mixture to 100 ml with appropriate media. Vortex to completely dissolve the methyl cellulose.
3. Upon addition of all reagents, sterile filtering the final media formulation is recommended prior to use.

RESOURCES

Reference

1. Xue, W., Li, H., Xu, J., *et al.* Effective cryopreservation of human brain tissue and neural organoids. *Cell Reports Methods* **4(5)**, 100777 (2024).

NOTES

Warranty and Limitation of Remedy

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.