



Hepatocyte Maintenance Reagent Kit

Item No. 44676

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GENERAL INFORMATION

Materials Supplied

| Item No. | Item Name | Quantity/Size | Storage |
|----------|----------------------------|---------------|---------|
| 13031 | SB-431542 (hydrate) | 1 vial/25 mg | -20°C |
| 11018 | Forskolin | 1 vial/50 mg | -20°C |
| 13951 | IWP-2 | 1 vial/1 mg | -20°C |
| 13197 | DAPT | 1 vial/10 mg | -20°C |
| 19396 | LDN-193189 (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, when combined with an appropriate cell culture media, enable maintenance of primary hepatocytes as terminally differentiated cells in long-term culture.¹

Each component in this kit is provided separately, and instructions are included to reconstitute these reagents for direct dilution into cell culture media. The kit is intended to supplement up to 4 L of culture media when using the indicated concentrations. 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.

Reagent Preparation

Preparation of Individual Stock Solutions

1. Prepare a 100 mM (10,000X) stock solution of SB-431542 by adding 650 μ l of sterile DMSO to the vial and vortexing until fully dissolved. The SB-431542 solution may be diluted in cell culture media to a final concentration of 10 μ M.
2. Prepare a 200 mM (10,000X) stock solution of forskolin by adding 609 μ l of sterile DMSO to the vial and vortexing until fully dissolved. The forskolin solution may be diluted in cell culture media to a final concentration of 20 μ M.
3. Prepare a 5 mM (10,000X) stock solution of IWP-2 by adding 428 μ l of sterile DMSO to the vial and vortexing until fully dissolved. The IWP-2 solution may be diluted in cell culture media to a final concentration of 0.5 μ M.
4. Prepare a 50 mM (10,000X) stock solution of DAPT by adding 462 μ l of sterile DMSO to the vial and vortexing until fully dissolved. The DAPT solution may be diluted in cell culture media to a final concentration of 5 μ M.
5. Prepare a 1 mM (10,000X) stock solution of LDN-193189 by adding 2.09 ml of sterile DMSO to the vial and vortexing until fully dissolved. This solution may be diluted in cell culture media to a final concentration of 0.1 μ M.
6. Combination of all the above factors in cell culture media at the recommended final dilutions results in media with a residual DMSO concentration of 0.05%.

NOTE: Concentrated stock solutions may be stored at -20°C for up to one month, avoiding multiple freeze-thaw cycles. Sterile filtration may be required upon dilution in media.

References

1. Xiang, C., Du, Y., Meng, G., *et al.* Long-term functional maintenance of primary human hepatocytes in vitro. *Science* **364(6438)**, 399-402 (2019).

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.

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