

# mTeSR™3D

Defined, serum-free media for suspension culture of human ES and iPS cells

Catalog #03950

1 Kit



Scientists Helping Scientists™ | [WWW.STEMCELL.COM](http://WWW.STEMCELL.COM)

TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713

[INFO@STEMCELL.COM](mailto:INFO@STEMCELL.COM) • [TECHSUPPORT@STEMCELL.COM](mailto:TECHSUPPORT@STEMCELL.COM)

FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

## Product Description

mTeSR™3D is a defined, serum-free formulation designed for the expansion of undifferentiated human embryonic stem (ES) cells and human induced pluripotent stem (iPS) cells as aggregates in a 3D suspension culture system. mTeSR™3D employs a fed-batch strategy in which nutrients and required growth factors are added daily and spent medium is only removed prior to passaging. The mTeSR™3D kit consists of a Seed Medium (Basal Medium + 5X Supplement) to initiate cultures and a Feed Medium (Supplement A and Supplement B) for daily fed-batch addition. The media contain recombinant human basic fibroblast growth factor (rh bFGF) and recombinant human transforming growth factor  $\beta$  (rh TGF $\beta$ ). Addition of further growth factors is not required. Y-27632 (ROCKi; Catalog #72304) must be added to the Seed Medium immediately before use.

mTeSR™3D is intended for use in suspension culture systems including but not limited to orbital shakers, spinner flasks, and bioreactors. For more information about appropriate culture vessels and passaging methods, refer to the Technical Manual: Expansion of Human Pluripotent Stem Cells as Aggregates in Suspension Culture Using mTeSR™3D (Document #DX20665), available on our website at [www.stemcell.com](http://www.stemcell.com) or contact us to request a copy.

## Product Information

PRODUCT NAME	CATALOG #	COMPONENTS	
mTeSR™3D	03950	Seed Medium	<ul style="list-style-type: none"><li>mTeSR™3D Seed Basal Medium (400 mL)</li><li>mTeSR™3D Seed 5X Supplement (100 mL)</li></ul>
		Feed Medium	<ul style="list-style-type: none"><li>mTeSR™3D Feed Supplement A (100 mL)</li><li>mTeSR™3D Feed Supplement B (12 mL)</li></ul>

## Component Storage and Stability

The following components are sold as part of the mTeSR™3D medium kit (see Product Information) and are not available for individual sale.

COMPONENT NAME	COMPONENT #	SIZE	STORAGE	SHELF LIFE
mTeSR™3D Seed Basal Medium	03951	400 mL	Store at 2 - 8°C.	Stable until expiry date (EXP) on label.
mTeSR™3D Seed 5X Supplement	03952	100 mL	Store at -20°C.	Stable until expiry date (EXP) on label.
mTeSR™3D Feed Supplement A	03953	100 mL	Store at -20°C.	Stable until expiry date (EXP) on label.
mTeSR™3D Feed Supplement B	03954	12 mL	Store at 2 - 8°C.	Stable until expiry date (EXP) on label.

## Preparation of mTeSR™3D Seed Medium and Feed Medium

Use sterile techniques to prepare mTeSR™3D Seed Medium (Basal Medium + 5X Supplement) and Feed Medium (Supplement A + Supplement B).

NOTE: Thaw supplements or complete media at room temperature (15 - 25°C) or overnight at 2 - 8°C. Do not thaw in a 37°C water bath.

### A. mTeSR™3D Seed Medium

The following example is for preparing 500 mL of medium. If preparing other volumes, adjust accordingly.

1. Thaw mTeSR™3D Seed 5X Supplement and mix thoroughly.

NOTE: Once thawed, use supplement immediately or aliquot and store at -20°C for up to 3 months. Do not exceed the shelf life of the supplement. After thawing the aliquoted supplement, use immediately. Do not re-freeze.

2. Add 100 mL of mTeSR™3D Seed 5X Supplement to 400 mL of mTeSR™3D Seed Basal Medium. Mix thoroughly.

NOTE: If not used immediately, store mTeSR™3D Seed Medium at 2 - 8°C for up to 2 weeks. Alternatively, aliquot and store at -20°C for up to 6 months. Do not exceed the shelf life of the individual components. After thawing the aliquoted medium, use immediately or store at 2 - 8°C for up to 2 weeks. Do not re-freeze.

If desired, the medium can be filtered using a 0.2 µm low-protein binding filter.

3. Immediately before use, add 10 µM Y-27632 (Catalog #72304).

## B. mTeSR™3D Feed Medium

The following example is for preparing 112 mL of medium. If preparing other volumes, adjust accordingly.

1. Thaw mTeSR™3D Feed Supplement A and mix thoroughly.

NOTE: Once thawed, use supplement immediately or aliquot and store at -20°C for up to 3 months. Do not exceed the shelf life of the supplement. After thawing the aliquoted supplement, use immediately. Do not re-freeze.

2. Add 12 mL of mTeSR™3D Feed Supplement B to 100 mL of mTeSR™3D Feed Supplement A. Mix thoroughly.

NOTE: Store mTeSR™3D Feed Medium at 2 - 8°C for up to 2 weeks. Alternatively, aliquot and store at -20°C for up to 3 months. Do not exceed the shelf life of the individual components. After thawing the aliquoted Feed Medium, use immediately or store at 2 - 8°C for up to 2 weeks. Do not re-freeze.

If prepared aseptically, mTeSR™3D Feed Medium is ready for use. If desired, the medium can be filtered using a 0.2 µm low-protein binding filter.

## Directions for Use

For complete instructions on how to culture human ES and iPS cells in mTeSR™3D, refer to the Technical Manual: Expansion of Human Pluripotent Stem Cells as Aggregates in Suspension Culture Using mTeSR™3D (Document #DX20665), available on our website at [www.stemcell.com](http://www.stemcell.com) or contact us to request a copy.



Accelerating stem cell technologies

mTeSR™3D is manufactured and sold under global exclusive license from Accellta for culture medium for hPSCs in suspension under feeder-free, non-adherent conditions.



This product was developed under license to intellectual property owned by WiCell™ Research Institute.

This product is sold for research use only (whether the buyer is an academic or for-profit entity) under a non-transferable, limited-use license. Purchase of this product does not include the right to sell, use or otherwise transfer this product for commercial purposes (i.e., any activity undertaken for consideration, such as use of this product for manufacturing, or resale of this product or any materials made using this product, or use of this product or any materials made using this product to provide services) or clinical use (i.e., administration of this product or any material using this product to humans) or the right to implant any material made using this product into an animal by, or in collaboration with, a for-profit entity, for purposes other than basic pre-clinical research applications (including without limitation teratoma assays) to validate the function of the cells. Purchasers wishing to use the product for purposes other than research use should contact Asterias Biotherapeutics, Inc. legal department at (650) 433-2900 or [legal@asteriasbio.com](mailto:legal@asteriasbio.com). Purchasers who do not agree to the terms and conditions set forth above should return the product in acceptable conditions to the seller for a refund.

STEMCELL TECHNOLOGIES INC.'S QUALITY MANAGEMENT SYSTEM IS CERTIFIED TO ISO 13485. PRODUCTS ARE FOR RESEARCH USE ONLY AND NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES UNLESS OTHERWISE STATED.

Copyright © 2016 by STEMCELL Technologies Inc. All rights reserved including graphics and images. STEMCELL Technologies & Design, STEMCELL Shield Design, and Scientists Helping Scientists are trademarks of STEMCELL Technologies Canada Inc. mTeSR is a trademark of WARF. All other trademarks are the property of their respective holders. While STEMCELL has made all reasonable efforts to ensure that the information provided by STEMCELL and its suppliers is correct, it makes no warranties or representations as to the accuracy or completeness of such information.