

TeSR™-E8™3D

Animal component-free suspension culture medium for human ES and iPS cells

Catalog #03990

1 Kit



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Product Description

TeSR™-E8™3D is an animal component-free culture medium developed for expansion and scale-up of undifferentiated human embryonic stem (ES) cells and human induced pluripotent stem (iPS) cells as aggregates in 3D suspension culture.

Based on TeSR™-E8™, TeSR™-E8™3D is a low-protein medium with an optimized protocol for scaling up human ES and iPS cell production in suspension culture. The novel fed-batch workflow saves time and media; daily feeds replenish nutrients and eliminate the need for medium exchanges on non-passaging days.

The TeSR™-E8™3D system is compatible with cells previously cultured in mTeSR™1 or TeSR™-E8™ on Corning® Matrigel® hESC-Qualified Matrix (Corning Catalog #354277) or Vitronectin XF™ (Catalog #07180, a matrix developed and manufactured by Nucleus Biologics), and is compatible with a range of suspension culture vessels.

Product Information

The following components are sold as part of the TeSR™-E8™3D kit (Catalog #03990) and are not available for individual sale.

COMPONENT NAME	COMPONENT #	SIZE	STORAGE	SHELF LIFE
TeSR™-E8™3D Seed Basal Medium	03991	480 mL	Store at 2 - 8°C.	Stable for 12 months from date of manufacture (MFG) on label.
TeSR™-E8™3D Seed Supplement	03992	20 mL	Store at -20°C.	Stable for 12 months from date of manufacture (MFG) on label.
TeSR™-E8™3D Feed Supplement	03993	20 mL	Store at -20°C.	Stable for 12 months from date of manufacture (MFG) on label.

Preparation of Reagents and Materials

A. TeSR™-E8™3D Seed Medium

Use sterile technique to prepare TeSR™-E8™3D Seed Medium (Basal Medium + Seed Supplement + Y-27632 [Catalog #72304]).

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

1. Thaw TeSR™-E8™3D Seed Supplement at room temperature (15 - 25°C) or overnight at 2 - 8°C. Do not thaw in a 37°C water bath. Mix thoroughly.

NOTE: Precipitate may be visible; warm to room temperature until dissolved. Performance will not be affected.

NOTE: If not used immediately, store TeSR™-E8™3D Seed Supplement in one of the following containers:

- TeSR™-E8™3D Seed Supplement bottle
- 50 mL polypropylene tubes (e.g. Catalog #38010)
- 2 mL or 0.5 mL polypropylene micro tubes (e.g. Sarstedt Catalog #72.694.006 or 72.730.005)

Do not use other storage containers. Store TeSR™-E8™3D Seed Supplement at -20°C for up to 3 months. Do not exceed the shelf life of the supplement. After thawing the aliquots, use immediately. Do not re-freeze.

2. Add 20 mL of TeSR™-E8™3D Seed Supplement to 480 mL of TeSR™-E8™3D Seed Basal Medium. Mix thoroughly. If desired, the medium can be filtered using a 0.2 µm low-protein binding filter.

NOTE: If not used immediately, store TeSR™-E8™3D Seed Medium (without Y-27632) in one of the following containers:

- TeSR™-E8™3D Seed Basal Medium bottle
- 50 mL polypropylene tubes (e.g. Catalog #38010)

Do not use other storage containers. Store TeSR™-E8™3D Seed Medium (without Y-27632) at 2 - 8°C for up to 2 weeks or at -20°C for up to 6 months. Do not exceed the shelf life of the individual components. After thawing the aliquoted medium, proceed to step 3 and use immediately, or store at 2 - 8°C for up to 2 weeks. Do not re-freeze.

3. Immediately before use, add 10 µM Y-27632. Mix thoroughly.

B. TeSR™-E8™3D Feed Supplement

Thaw TeSR™-E8™3D Feed Supplement at room temperature (15 - 25°C) or overnight at 2 - 8°C. Do not thaw in a 37°C water bath. Mix thoroughly.

NOTE: Precipitate may be visible, and/or supplement may appear cloudy. Warm the supplement to room temperature until all precipitate has dissolved and the solution no longer appears cloudy. Performance will not be affected.

NOTE: If not used immediately, store TeSR™-E8™3D Feed Supplement in one of the following containers:

- TeSR™-E8™3D Feed Supplement bottle
- 50 mL polypropylene tubes (e.g. Catalog #38010)
- 2 mL or 0.5 mL polypropylene micro tubes (e.g. Sarstedt Catalog #72.694.006 or 72.730.005)

Do not use other storage containers. Store TeSR™-E8™3D Feed Supplement at 2 - 8°C for up to 2 weeks or at -20°C for up to 3 months. Do not exceed the shelf life of the supplement. After thawing the aliquots, use immediately or store at 2 - 8°C for up to 2 weeks. Do not re-freeze.

Directions for Use

For complete instructions on how to culture human ES and iPS cells in TeSR™-E8™3D, refer to the Technical Manual: Expansion of Human Pluripotent Stem Cells as Aggregates in Suspension Culture Using TeSR™-E8™3D (Document #1000005430), available at www.stemcell.com or contact us to request a copy.



TeSR™-E8™3D is manufactured and sold under global exclusive license from Accellta for culture medium for hPSCs in suspension under feeder-free, non-adherent conditions.



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