

RSeT™ Medium

Defined medium for naïve-like human pluripotent stem cells



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Catalog #05978

500 mL Kit

Product Description

RSeT™ Medium is a defined cell culture medium used for the reversion of primed human pluripotent stem cells (hPSCs) to a naïve-like state and maintenance of naïve-like hPSCs under feeder-dependent and hypoxic conditions. RSeT™ Medium contains pre-screened quality components and does not contain bFGF or TGFβ. It is compatible with human embryonic stem (ES) cells and human induced pluripotent stem (iPS) cells.

hPSCs cultured in RSeT™ Medium exhibit features of a naïve-like state such as tightly packed, domed colonies with refractive edges. Key transcripts associated with naïve-like hPSCs such as KLF2, KLF4, and TFCP2L1 show increased expression in hPSCs cultured in RSeT™ Medium. RSeT™ hPSCs can be converted back to a primed state by culture in mTeSR™1 and can then be differentiated with STEMdiff™ products such as STEMdiff™ Definitive Endoderm Kit (Catalog #05110), STEMdiff™ SMADi Neural Induction Kit (Catalog #08581), and STEMdiff™ Mesoderm Induction Medium (Catalog #05220).

Product Information

The following components are sold as a complete kit (Catalog #05970) and are not available for individual sale.

COMPONENT NAME	COMPONENT #	SIZE	STORAGE	SHELF LIFE
RSeT™ Basal Medium	05969	400 mL	Store at 2 - 8°C.	Stable until expiry date (EXP) on label.
RSeT™ 5X Supplement*	05979	100 mL	Store at -20°C.	Stable until expiry date (EXP) on label.

*This product contains material derived from human plasma. Donors have been tested and found negative for HIV-1 and -2, hepatitis B, and hepatitis C prior to donation. However, this product should be considered potentially infectious and treated in accordance with universal handling precautions.

Preparation of Complete RSeT™ Medium

Use sterile techniques when preparing complete RSeT™ Medium (Basal Medium + 5X Supplement). The following example is for preparing 100 mL of complete medium. If preparing other volumes, adjust accordingly.

1. Thaw the 5X supplement at room temperature (15 - 25°C) or at 2 - 8°C overnight. Ensure supplement is evenly resuspended after thawing.

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

2. Add 20 mL of 5X Supplement to 80 mL of Basal Medium. Mix thoroughly.

NOTE: If not used immediately, store complete RSeT™ Medium at 2 - 8°C for up to 1 week. Warm complete medium to room temperature (15 - 25°C) before use. Protect from exposure to direct light.

Directions for Use

For complete instructions on how to maintain human naïve stem cells in RSeT™ Medium, refer to the Technical Manual: Reversion and Maintenance of Human Naïve Pluripotent Stem Cells with RSeT™ Medium (Document #DX22492) available at www.stemcell.com or contact us to request a copy.

Assessment of hPSCs

The following antibodies can be used to characterize hPSCs by flow cytometry or immunocytochemistry:

- Anti-Human SSEA-4 Antibody, Clone MC-813-70 (Catalog #60062)
- Anti-Human TRA-1-60 Antibody, Clone TRA-1-60R (Catalog #60064)
- Anti-Human OCT4 (OCT3) Antibody, Clone 3A2A20 (Catalog #60093)

Related Products

For related products, including specialized cell culture and storage media, matrices, antibodies, cytokines, and small molecules, visit www.stemcell.com/hPSCworkflow or contact us at techsupport@stemcell.com.

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