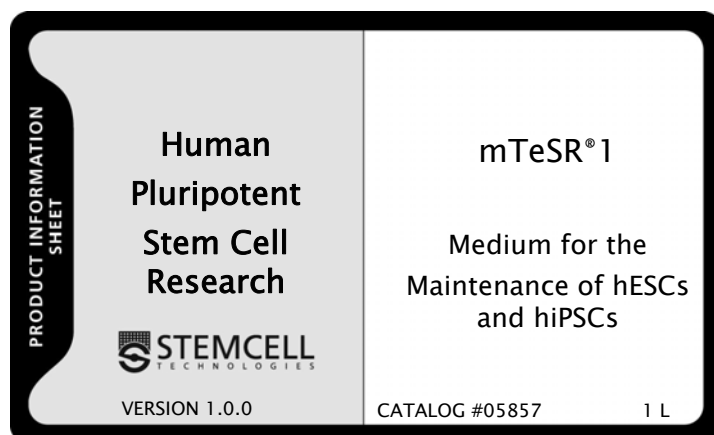


mTeSR[®]1

Medium for the Maintenance of hESCs and hiPSCs



PRODUCT DESCRIPTION

mTeSR[®]1 medium (Catalog #05850/05870/05875/05857) is a complete, serum-free, defined formulation designed for the feeder-independent maintenance and expansion of human embryonic stem cells (hESCs) in the undifferentiated state.^{1,2} mTeSR[®]1 has also been used to derive and maintain human induced pluripotent stem cells (hiPSCs).³⁻⁵ Complete mTeSR[®]1 medium (Basal Medium + 5X Supplement) contains recombinant human basic fibroblast growth factor (rh bFGF) and recombinant human transforming growth factor β (rh TGF β). Addition of further growth factors is not required. mTeSR[®]1 medium is formulated for use with BD Matrigel[™] hESC-qualified Matrix-coated surfaces (BD Catalog #354277). This BD Matrigel[™] has been qualified as mTeSR[®]1-compatible by STEMCELL Technologies Inc.

Each batch of mTeSR[®]1 is sterility-tested before being performance tested as follows: H1 or H9 hESCs are cultured in mTeSR[®]1 medium prepared with test batch of 5X Supplement and cultured for ≥ 3 passages. Results are compared to an mTeSR[®]1 medium laboratory standard cultured in parallel. A certificate of analysis is available on request.

COMPONENT DESCRIPTIONS:

PRODUCT NAME	mTeSR [®] 1 BASAL MEDIUM
Component Number	05871
Unit Size	800 mL
Stability and Storage Conditions	Product stable at 2 - 8°C until expiry date as indicated on label.

PRODUCT NAME	mTeSR [®] 1 5X SUPPLEMENT
Component Number	2 x 05852
Unit Size	2 x 100 mL
Stability and Storage Conditions	Product stable at -20°C until expiry date as indicated on label. Thaw up to 2 times.

COMPLETE MEDIUM SPECIFICATIONS:

PARAMETER	SPECIFICATION
Osmolarity	330 – 350 mOsm
pH	7.25 – 7.45

STABILITY AND STORAGE

Complete mTeSR[®]1 medium is stable at 2 - 8°C for up to 2 weeks.

Complete medium can be stored at -20°C after preparation and is stable for up to 6 months. Thaw complete medium at room temperature (15 - 25°C) or overnight at 2 - 8°C.

This product has been aseptically manufactured using tightly controlled processes and extensively pre-screened components.

PREPARATION

1. Thaw mTeSR[®]1 5X Supplement (Catalog #05852) at room temperature (15 - 25°C) or overnight at 2 - 8°C.

If desired, 5X Supplement can be aseptically dispensed into working aliquots and stored frozen at -20°C. Use aliquots within 3 months. Thawed aliquots should be used within 1 day to prepare complete mTeSR[®]1 medium. Do not refreeze aliquots after thawing.

2. Aseptically add the entire 200 mL (2 x 100 mL) of thawed 5X Supplement (Component #05852) to 800 mL Basal Medium (Component #05871) for a total volume of 1 L. Mix well. The complete mTeSR[®]1 medium is stable when stored at 2 - 8°C for up to 2 weeks.

If prepared aseptically, mTeSR[®]1 medium is ready for use but the medium can also be filtered using a 0.2 μ m, low-protein binding filter, if desired.



DIRECTIONS FOR USE

For complete instructions on how to maintain hESCs in mTeSR[®]1 Medium see the mTeSR[®]1 and TeSR[™]2 Technical Manual (Manual Catalog #29106) available on our website at www.stemcell.com/technical/manuals.aspx. BD Matrigel[™] hESC-qualified Matrix is available from BD (Catalog #354277).

RELATED PRODUCTS

PRODUCT	CATALOG #
TeSR [™] 2 Animal Protein-Free Medium for the maintenance of hESCs & hiPSCs	05860/05880
AggreWell [™] 400 plates for the reproducible formation of uniformly sized embryoid bodies	27845/27945
Anti-Oct 3/4 antibody	01550/01551
Anti-SSEA-1 antibody	01552
Anti-SSEA-3 antibody	01553
Anti-SSEA-4 antibody	01554
Anti-TRA-1-60 antibody	01555
Anti-TRA-1-81 antibody	01556
Anti-TRA-2-49 antibody	01557
Anti-TRA-2-54 antibody	01558
FITC-conjugated goat anti-mouse IgG	10210
FITC-conjugated goat anti-mouse IgM	10211
APC-conjugated goat anti-rat IgM	10215
mFreSR [®] defined cryopreservation medium for hESCs and hiPSCs	05855/05854
CryoStor [™] CS10 defined, animal protein-free cryopreservation medium for hESCs and hiPSCs	07930
ACCUTASE [®]	07920
Dispase (1 mg/mL)	07923

REFERENCES

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