

Available Now

## The Best Just Got Better

### cGMP mTeSR™1

mTeSR™1 is the most widely published feeder-free culture medium for human pluripotent stem cells (hPSCs). Now, mTeSR™1 just got even better.

**The same mTeSR™1 that you know and trust, is now available as cGMP.**

Used in more than 1100 peer-reviewed publications, in over 50 countries, and with thousands of hPSC lines, mTeSR™1 is the gold standard of hPSC culture medium. Now, we are taking mTeSR™1 one step further.

mTeSR™1 is a highly specialized and defined, serum-free and complete cell culture medium, with established protocols for applications ranging from derivation to differentiation. Proven to provide more consistent cultures with homogeneous, undifferentiated phenotypes, mTeSR™1 has been used to successfully maintain thousands of hPSC lines, enabling top pluripotent stem cell research.

## Why cGMP mTeSR™1?

mTeSR™1 is already known as the most reliable and consistent medium for hPSC culture. Historically manufactured under a robust Quality Management System certified to ISO 13485:2003 standards, rigorous quality control testing and raw material screening have always been an integral part of the manufacturing process, to ensure high levels of consistency in quality and performance from batch-to-batch. Now, we are taking it to the next level, and are pleased to provide the same mTeSR™1 you know and trust, as a cGMP medium. cGMP mTeSR™1 is manufactured under a cGMP quality management system compliant to 21 CFR 820.

STEMCELL is happy to continue to support your basic and translational research applications through the use of the new cGMP mTeSR™1.

### Advantages:

**PROVEN.** Used in > 1100 peer-reviewed publications, with thousands of independently-derived hPSC lines, in more than 50 countries.

**ROBUST.** Contains pre-screened and quality-controlled components, including BSA to stabilize medium and protect cells against cellular toxins and stresses, and to aid in lipid/nutrient transport.<sup>1</sup>

**DEFINED.** Feeder-free hPSC culture medium.

**cGMP.** Ensures the highest quality and consistency for reproducible results.

Developed at the:



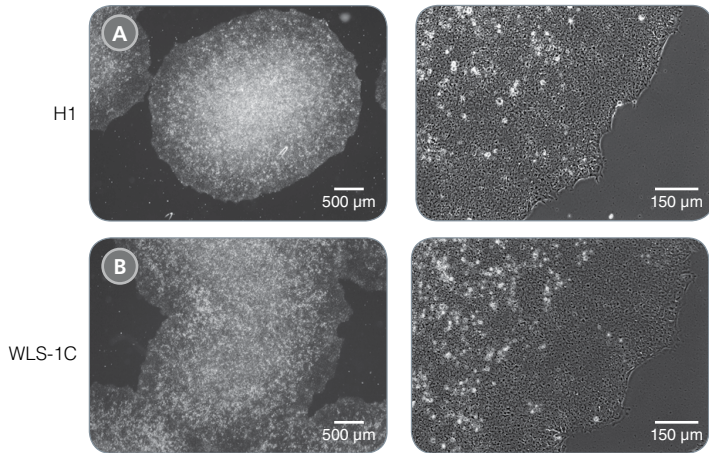
cGMP mTeSR™1 Kit contains cGMP mTeSR™1 basal medium and 5X supplement.

PRODUCT	SIZE	CATALOG #
cGMP mTeSR™1	500 mL	85850

### RECOMMENDED FOR:

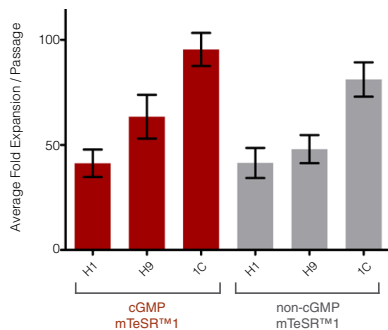
- Maintenance of undifferentiated hPSCs in feeder-free conditions.
- Researchers interested in maintaining hPSCs under GMP conditions.
- hPSC researchers interested in translational research.

# cGMP mTeSR™1



**Figure 1.** Normal hES and hiPS Cell Morphology is Observed in cGMP mTeSR™1 Cultures

Undifferentiated (A) H1 human embryonic stem (hES) and (B) WLS-1C human induced pluripotent stem (hiPS) cells cultured on Corning® Matrigel® Matrix in cGMP mTeSR™1 retain the prominent nucleoli and high nuclear-to-cytoplasmic ratio characteristic of this cell type after 10 passages. Densely packed cells and multi-layering are prominent when cells are ready to be passaged.

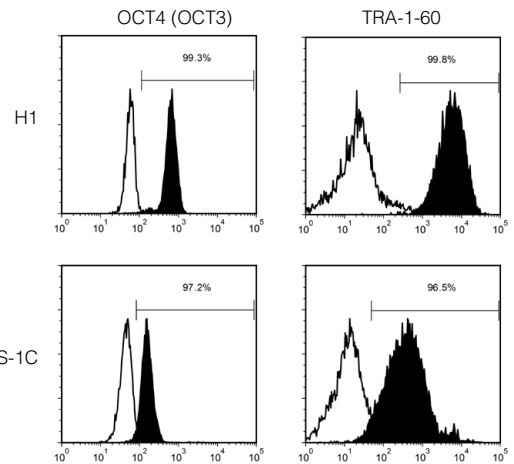


**Figure 2.** High Expansion Rates are Observed in cGMP mTeSR™1 Cultures

Graph shows the average fold expansion per passage +/- SEM obtained for hES (H1 and H9) and hiPS (WLS-1C) cells cultured in cGMP mTeSR™1 (red) or non-cGMP mTeSR™1 (gray) on Corning® Matrigel® Matrix over 10 passages. Expansion was determined by enumerating the cell aggregates obtained at harvest and dividing by the number of cell aggregates seeded. Note that this data is representative of cultures passaged after 6-7 days in culture, lower expansion should be expected if using shorter culture times.

## Reference

- Ludwig TE et al. (2006) Nat Methods 3(8): 637-46.

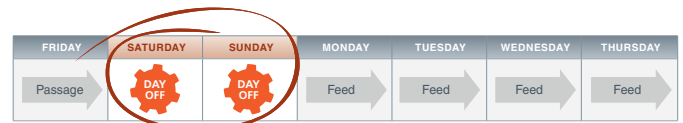


**Figure 3.** Cells Cultured in cGMP mTeSR™1 Medium Express Undifferentiated Cell Markers

(A) Histogram analysis for hES (H1) and hiPS (WLS-1C) cells characterized using FACS for undifferentiated cell markers, OCT4 (OCT3) (Catalog #60093) and TRA-1-60 (Catalog #60064), after 10 passages in cGMP mTeSR™1 (filled = sample, blank = isotype control).

## Weekend-Free Culture of hPSCs

Cells grown in mTeSR™1 are capable of being passaged on a 7-day schedule, where cultures do not need to be fed on weekends. Cells are only passaged once a week on Fridays, and medium replacement is not required on either Saturdays or Sundays. This protocol is compatible with Corning® Matrigel® and Vitronectin XF™ (Catalog #07180).



**Figure 4.** Overview of Weekend-Free Protocol

By following a routine 7-day passaging schedule on Fridays, weekend work is eliminated as medium replacement is not required on either Saturdays or Sundays.

For a complete list of related products, including specialized cell culture and storage media, matrices, antibodies, cytokines and small molecules, visit [www.stemcell.com/hPSCworkflow](http://www.stemcell.com/hPSCworkflow) or contact us at [techsupport@stemcell.com](mailto:techsupport@stemcell.com).