

# Corning® Synthemax™ Surface

## Unique Synthetic Surface for Culturing Embryonic Stem Cells

CORNING

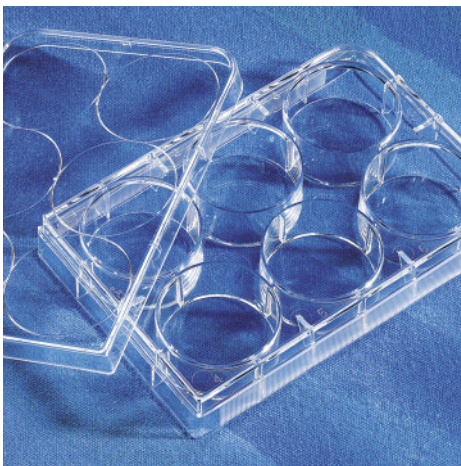
The Corning Synthemax Surface is a unique synthetic surface coated onto multiple well plates and flasks that mimics the natural cell environment. This surface supports the expansion of stem cells in their undifferentiated state and enables directed differentiation into specialized cell types. In addition, it offers a synthetic alternative to biological coatings and/or feeder cell layers used in traditional stem cell culture. The surface is manufactured using a proprietary surface coating technology which ensures lot-to-lot consistency, translating to reproducible results in laboratories and production facilities.

Corning Synthemax Surface allows for the scalable expansion of human embryonic stem cell (hESC) cultures for more than 20 serial passages in defined xeno-free medium with:

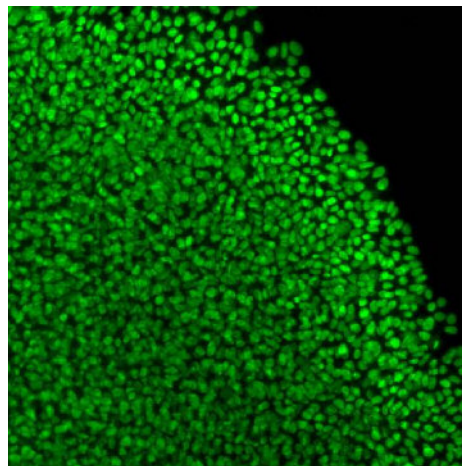
- ▶ Stable doubling time
- ▶ Phenotypic marker expression (Oct4, TRA-1-60, SSEA4)
- ▶ Retention of pluripotency by embryoid body and teratoma formation assays
- ▶ Retention of normal karyotype

In today's stem cell research market, there is a growing demand for cell culture surfaces to support the specific requirements of human embryonic stem cells. Current methods to maintain hESCs in an undifferentiated state often employ mouse feeder layers or biological substrates. These methods can be problematic as they are difficult to work with, can be inconsistent, and introduce the possibility of contamination from the animal source. The development of this new mimetic surface directly addresses these issues. Corning Synthemax Surface is:

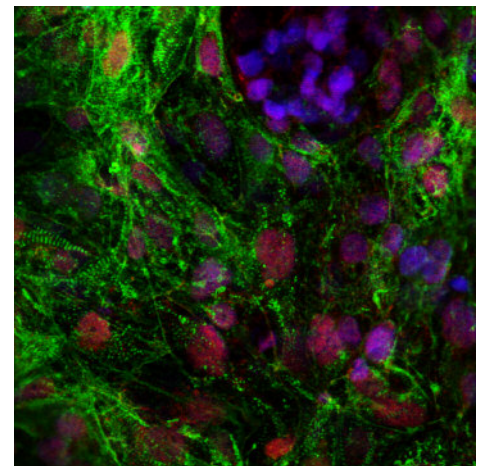
- ▶ Suitable for GMP-compliant cell production facilities
- ▶ Lot-traceable for the surface and plates
- ▶ Gamma sterilized (SAL 10<sup>-6</sup>)
- ▶ Quality tested for lot-to-lot consistency
- ▶ Stored at room temperature
- ▶ Ready to use surface with no preparation required



6 Well Plate with Corning Synthemax Surface.



Oct4 immunostaining of H7 hESC cells demonstrates the cells remain undifferentiated after four serial passages on Corning Synthemax Surface multiple well plates.



H7 hESC differentiated to cardiomyocytes on Corning Synthemax Surface multiple well plates, as demonstrated by immunostaining of  $\alpha$ -actinin (green, actin filaments), Nkx2.5 (red, cardiac-specific marker) and DAPI (blue, nucleus).

## Corning® Synthemax™ Surface Ordering Information

Cat. No.	Description	Qty/Pk	Qty/Case
3876XX1	6 well plate, Corning Synthemax Surface, polystyrene, sterile	1	2
3877XX1	6 well plate, Corning Synthemax Surface, polystyrene, sterile	1	12

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