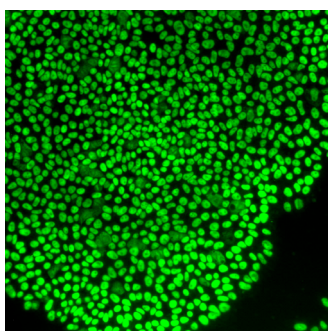


# Corning® Synthemax® II-SC Substrate

Self-coating synthetic surface for stem cells

Protocol

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## Coating Materials

- ▶ A vial of sterile Corning Synthemax II-SC substrate (store at -20°C) (Corning 3535)
- ▶ Corning CellBIND® surface culture vessels. For Corning Cat. Nos. refer to Tables 2 and 3.
- ▶ 5 mL Corning Stripette® serological pipets (Corning 4487)
- ▶ 10 mL Corning Stripette serological pipets (Corning 4101)
- ▶ Water, cell culture grade (Corning 25-055-CI)

**NOTE:** All the following steps should be done under aseptic conditions using proper aseptic techniques.

## Reconstitution Procedure for Corning Synthemax II-SC Substrate

1. Using a 10 mL pipet, add 10 mL of cell culture grade water to the vial of Synthemax II-SC substrate.
2. Pipet up and down several times, washing the walls of the vial, to ensure the complete reconstitution of the powder in water. This will result in 1 mg/mL Synthemax II-SC stock solution.
3. Store Corning Synthemax II-SC stock solution at 4°C for up to 6 months or proceed to the vessel coating procedure below.

## Vessel Coating Procedure

1. Dilute Synthemax II-SC stock solution 1:40 in cell culture grade water to achieve a 0.025 mg/mL working solution final concentration. Refer to Table 1 for Synthemax II-SC stock solution dilution guidelines.
2. Add appropriate volume of Synthemax II-SC working solution to a culture vessel. Refer to Tables 2 and 3 for appropriate volumes of Synthemax II-SC working solution to coat different vessel formats.
3. Cover vessel with lid, and incubate at room temperature for 2 hours.
4. Aspirate all remaining solution (vessels will appear to be dry).
5. The vessel is ready to use, or can be stored at 4°C for up to 3 months.

**NOTE:** It is critical to use the exact dispense volumes given in Tables 1 through 3 to ensure a concentration of 5 µg/cm<sup>2</sup> on the surface.

**Table 1.** Corning Synthemax II-SC stock solution dilution guidelines.

Reagent	Volume (mL)	Volume (mL)	Volume (mL)
Corning Synthemax II-SC stock solution (1 mg/mL)	1	5	10
Water, cell culture grade	39	195	390
Final volume of Corning Synthemax II-SC working solution (0.025 mg/mL)	40	200	400

**Table 2.** Recommended volume of Corning® Synthemax® II-SC working solution for coating multiwell plates.

Cat. No.	Culture Vessel	Growth Area per Well (cm <sup>2</sup> )	Volume of 0.025 mg/mL Corning Synthemax II-SC Working Solution per Well (mL)
3335	6-well	9.5	2
3336	12-well	3.8	0.8
3337	24-well	1.9	0.4
3338	48-well	0.95	0.2
3300	96-well	0.32	0.1

**Table 3.** Recommended volume of Corning Synthemax II-SC working solution for coating flasks.

Cat. No.	Culture Vessel	Growth Area (cm <sup>2</sup> )	Volume of 0.025 mg/mL Corning Synthemax II-SC Working Solution (mL)
3289	T-25	25	5
3290	T-75	75	15
3291	T-150	150	30
3292	T-175	175	35
3293	T-225	225	45

**NOTE:** Be sure to review the SDS and dispose of all Synthemax II-SC liquid waste as chemical waste in appropriate lab disposal site. In addition, use all appropriate cell culture personal protective equipment (lab coat and gloves) when handling Synthemax II-SC solution.

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