## CORNING

# Corning<sup>®</sup> CellCube<sup>®</sup> System

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The Corning CellCube system provides a compact, perfusion-based method for the mass culture of attachment-dependent cells. CellCube modules consist of a series of 10, 25, or 100 parallel, polystyrene plates joined to create thin, sealed laminar flow spaces between adjacent plates. CellCube modules are available with either a Tissue Culture (TC)-treated growth surface or Corning CellBIND® surface for cell attachment. The surface treatment is applied to both sides of each layer to achieve available surface area ranging from 8,500 cm<sup>2</sup> to 85,000 cm<sup>2</sup> in a compact footprint. The system continually perfuses the cells with fresh medium for increased cell productivity. The CellCube system provides an environment that more closely simulates *in vivo* conditions than a static culture with its perfusion-based design. It mimics the constant fluid flow of *in vivo* conditions and reliably distributes nutrients and oxygen with low differential gradients across all attached cells throughout the modules.





<sup>\*</sup>Peristaltic pump, controller, and SUB sold separately.

#### **CellCube Features and Benefits**

- Surface treatment on both sides of the plates doubles the available surface area within the same footprint
- Encapsulation and endplates made from polycarbonate for strength and long-term reliability
- Flow control orifice and directors promote even distribution of media
- Scale-up from 8,500 cm<sup>2</sup> to 85,000 cm<sup>2</sup> is linear and uses the same pumps and controller for greater efficiency

The culture medium is perfused through the Corning CellCube system by a peristaltic pump. This allows media to flow in from the controlled single use bioreactor (SUB) into the CellCube module and back to the SUB for conditioning. The controller system maintains the pH and dissolved oxygen (DO) levels of the perfused culture medium within the SUB to ensure consistent feeding of the cells in the CellCube modules.

#### **Closed System Features and Benefits**

Corning offers closed system CellCube modules available preassembled with AseptiQuik<sup>®</sup> connectors, as well as a selection of circulation loops that facilitate adherent cell culture scale-up and integrate seamlessly with AseptiQuik and MPC connectors.

- Standardized closed system designs allow flexible set up of any CellCube module and aseptic connection to an oxygenator (sold separately)
- Sterile and ready-to-use closed system offerings eliminate the time and complexity of assembling in-house
- Industry standard AseptiQuik S/G connectors allow for robust, single-use aseptic connections

#### **Protocol Guide**

For recommended Guidelines for Use, refer to Corning CellCube Culture System Cell Expansion Protocol.

#### **Ordering Information**

#### Corning<sup>®</sup> CellCube<sup>®</sup> System Modules

VWR Cat. No.	Corning Cat. No.	Description	Number of Layers	Growth Surface Area (cm²)	Surface Treatment	Qty/Pk	Qty/Cs
76474-044	3231	CellCube 10-Stack module with AseptiQuik® connectors	10	8,500	TC-treated	1	2
76474-046	3232	CellCube 25-Stack module with AseptiQuik connectors	25	21,250	TC-treated	1	1
76474-048	3233	CellCube 100-Stack module with AseptiQuik connectors	100	85,000	TC-treated	1	1

#### **Corning CellCube Accessories**

VWR Cat. No.	Corning Cat. No.	Description	Qty/Pk	Qty/Cs
76474-050	3234	CellCube T-tubing, medium filter, 2 aseptic connectors	1	4
76474-604	3235	CellCube Double-T manifold, 4 aseptic connectors	1	2
76474-606	3236	CellCube Cross manifold, 4 aseptic connectors	1	4
76474-608	3237	CellCube adaptor, aseptic connector to female MPC	1	4
76474-610	3238	CellCube adaptor, aseptic connector to male MPC	1	4



Warranty/Disclaimer: Unless otherwise specified, all products are for research use or general laboratory use only.\* Not intended for use in diagnostic or therapeutic procedures. Not for use in humans. These products are not intended to mitigate the presence of microorganisms on surfaces or in the environment, where such organisms can be deleterious to humans or the environment. Corning Life Sciences makes no claims regarding the performance of these products for clinical or diagnostic applications. \*NOTE: The following products and their sterile accessories are considered US class I medical devices: Tissue culture plates, flasks and dishes (area >100 cm<sup>2</sup>), multilayer flasks, spinner flasks, Erlenmeyer flasks, Corning HYPERFlask and HYPERStack vessels, Corning CellSTACK chambers, centrifuge tubes, cell culture tubes, cryogenic vials, roller bottles, polystyrene microcarrier beads. Falcon IVF products are US class II and CE marked per the EU medical device directive 93/42/EEC.

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For additional product or technical information, visit vwr.com/corning, call 1.800.932.5000, or contact your VWR representative.

