

# Corning® HYPERStack® Cell Culture Vessel

Closed System for High Yield Cell Growth

## Corning's High Yield PERFORMANCE (HYPER) Platform

The HYPERStack cell culture vessel combines the best of two Corning products: the Corning CellSTACK® and the Corning HYPERFlask® cell culture vessels.

The utilization of the gas-permeable film technology provided in the spatial footprint of the CellSTACK vessel allows the HYPERStack platform to be among the most efficient, scalable cell culture vessels for adherent cell culture available today.

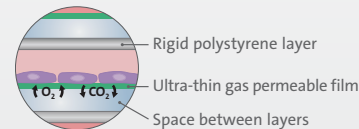
### Features and Benefits

- More cells – provides up to 5X the growth surface area of a traditional cell culture vessel of comparable footprint
- Closed system – no open fluid manipulations
- Scalable product – multiple size offerings support scale-up and scale-out
- Ergonomic design – easier manipulation with handling equipment and accessories
- Fixed media volume – 0.2 mL/cm<sup>2</sup> fills vessel for less volumetric waste



### The Principle

Gas exchange across gas-permeable film enables up to 5X gain in cell growth surface area versus vessels of comparable footprint.



Rigid polystyrene layer

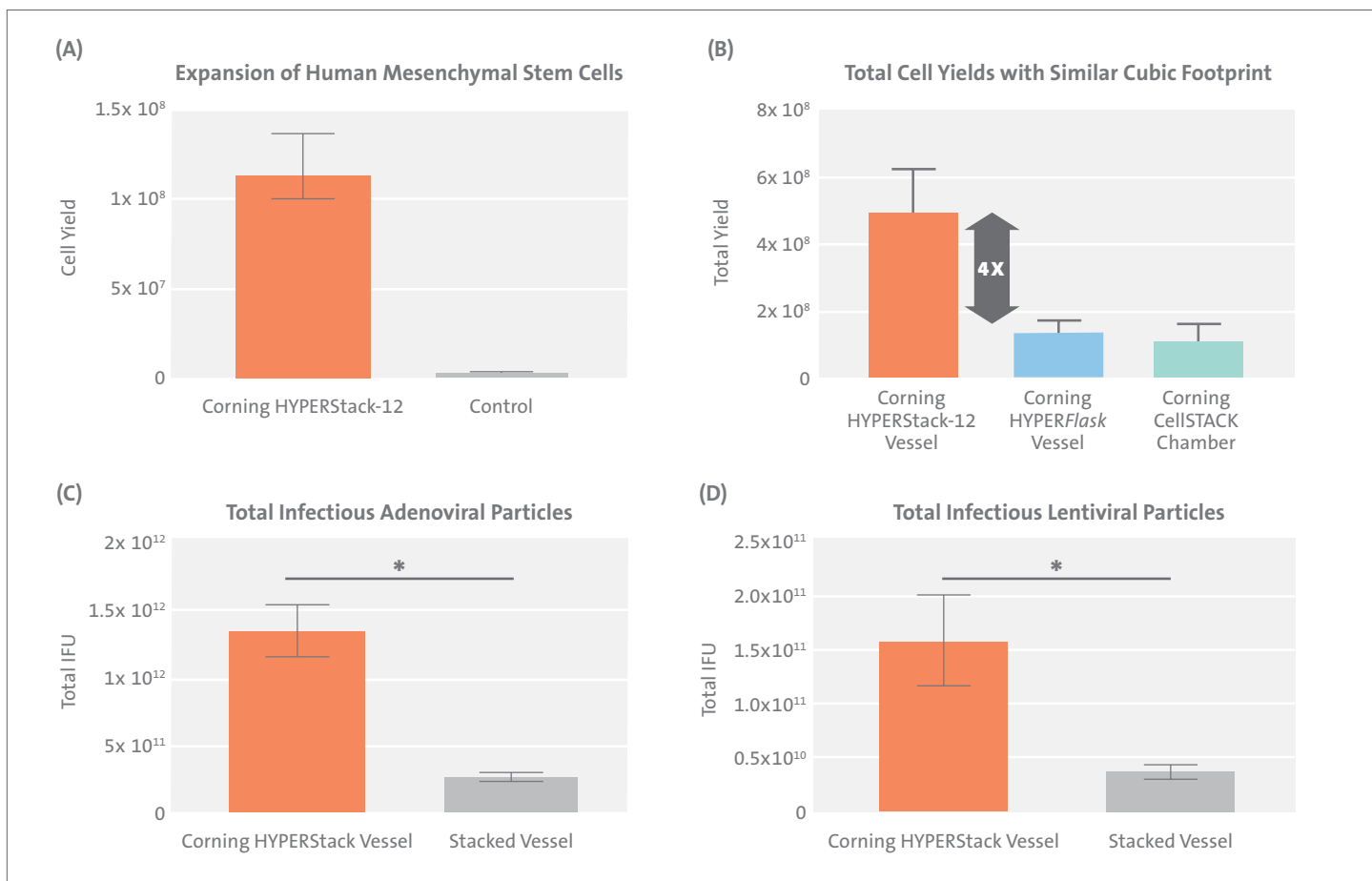
Ultra-thin gas permeable film

Space between layers

### Additional Resources

Additional HYPERStack information, including application notes and videos, are available at [www.corning.com/HYPER](http://www.corning.com/HYPER).

# Corning® HYPERStack® Cell Culture Vessels Improve Scale-up Efficiency



(A) Final expansion of Human Mesenchymal Stem Cells in Corning HYPERStack 12-layer or control T-flask cell culture vessels with Corning CellBIND® surface treatment using hMSC medium. (B) Total Corning HYPERStack vessel yields of Vero cell cultures were 4X greater than yields from Corning CellSTACK® vessels with similar cubic footprint. (C) Corning HYPERStack vessels generated a significantly higher amount of total infectious adenoviral particles versus stacked vessels of similar cubic footprint. Total infectious adenoviral particles were calculated based on titers and the volume of each fraction (cells and medium). (D) Corning HYPERStack vessels generated a significantly higher amount of total infectious lentiviral particles compared to stacked vessels of similar cubic footprint. \*Paired t-test, p < 0.05, N=3.

## The Properties



### Corning HYPERStack 12-layer

|                             |                                    |
|-----------------------------|------------------------------------|
| Surface:                    | 6,000 cm <sup>2</sup>              |
| Volume:                     | 1.31L                              |
| Filled weight (approx.):    | 2.2 kg                             |
| Dimensions (L x W):         | 13.42 x 8.15 in.<br>(342 x 207 mm) |
| Vessel Height:              | 2.8 in. (71 mm)                    |
| Height with Accessory Tray: | 5.5 in. (140 mm)                   |



### Corning HYPERStack 36-layer

|                             |                                    |
|-----------------------------|------------------------------------|
| Surface:                    | 18,000 cm <sup>2</sup>             |
| Volume:                     | 3.92L                              |
| Filled weight (approx.):    | 6.6 kg                             |
| Dimensions (L x W):         | 13.42 x 8.15 in.<br>(342 x 207 mm) |
| Height with Accessory Tray: | 10.97 in. (278 mm)                 |



## Ordering Information

### Corning® HYPERStack® Cell Culture Vessels

| Fisher Scientific Cat. No. | Corning Cat. No. | Description   | Growth Area (cm <sup>2</sup> ) | Qty/Pk | Qty/Cs |
|----------------------------|------------------|---|--------------------------------|--------|--------|
| 10-320-184                 | 20012            | Corning HYPERStack 12-layer cell culture vessel, Corning CellBIND® surface, sterile | 6,000                          | 1      | 4      |
| 10-320-186                 | 20036            | Corning HYPERStack 36-layer cell culture vessel, Corning CellBIND surface, sterile  | 18,000                         | 1      | 2      |
| 10-320-185                 | 20013            | Corning HYPERStack 12-layer cell culture vessel, non-treated, sterile               | 6,000                          | 1      | 4      |
| 10-320-187                 | 20037            | Corning HYPERStack 36-layer cell culture vessel, non-treated, sterile               | 18,000                         | 1      | 2      |

### Accessories

| Fisher Scientific Cat. No. | Corning Cat. No. | Description  | Qty/Pk | Qty/Cs |
|----------------------------|------------------|--|--------|--------|
| 07-201-415                 | 431518           | 2L Erlenmeyer flask with dip tube with 0.2 µm vent, male MPC, chemically resistant, heat sealable flexible tubing, ¼" ID, 3/8" OD  | 1      | 3      |
| 07-200-929                 | 11501            | 5L Erlenmeyer flask with dip tube with 0.2 µm filter, male MPC chemically resistant, heat sealable flexible tubing, ¼" ID, 3/8" OD   | 1      | 2      |
| 07-201-848                 | 10043            | Disposable tubing set for use with 850 cm <sup>2</sup> polystyrene roller bottle, 3/8" ID x 1/2" OD, chemically resistant, heat sealable, thermoplastic elastomer tubing, 0.2 µm filter, MPC | 1      | 2      |
| 07-201-852                 | 431644           | Corning 850 cm <sup>2</sup> polystyrene bottle, easy grip cap, non-treated, sterile  | 1      | 40     |
| 10-320-197*                | 10047*           | Corning HYPERStack Nest accessory  | 1      | 1      |

\*Made to order. Please contact your local Fisher Account Representative for more information.

For more specific information on claims, visit [www.corning.com/certificates](http://www.corning.com/certificates).

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