

# BD Falcon™ Cell Culture Multi-Flask

Multiply your cell growth. Multiply your productivity.

BD Falcon™ Cell Culture Multi-Flasks enable you to grow more cells faster and easier, thereby making your cell culture workflow more productive.

Tissue culture-treated BD Falcon Multi-Flasks are available in 3- or 5-layer formats and provide 525 cm<sup>2</sup> or 875 cm<sup>2</sup> cell growth surface area. They can be used with a wide range of liquid volumes (up to 50 ml/layer).

## Features

- Even distribution of media across all layers for homogeneous cell growth.
- Ability to mix cells and reagents in the BD Falcon Multi-Flask saves time and reduces risk of contamination.
- Flexible design lets you pour or aspirate/recover cells using a pipet.
- Consistent surface treatments for predictable scale-up.
- Lot number is printed on each flask for traceability.
- Manufactured in compliance to cGMP standards.

## Designed to Fit Your Protocol

Simplify your scale-up. New BD Falcon Multi-Flasks offer the same footprint and the same reagent volumes and cell seeding densities per unit area as 175 cm<sup>2</sup> flasks. Plus, you'll be using the same proven surface treatment as all other BD Falcon flasks.

## Improves Your Cell Culture Productivity

BD Falcon Multi-Flasks deliver a thoughtful design that simplifies your workflow. You can eliminate multiple steps and reduce the risk of contamination.

- Pipet access allows you to aspirate to replenish media and recover cells without pouring.
- The mixing port enables rapid mixing inside the vessel and allows you to add your cell suspension, transfection, or other reagents directly to the flask. The port also enables uniform distribution of media and cells to facilitate homogeneous cell growth on all layers.

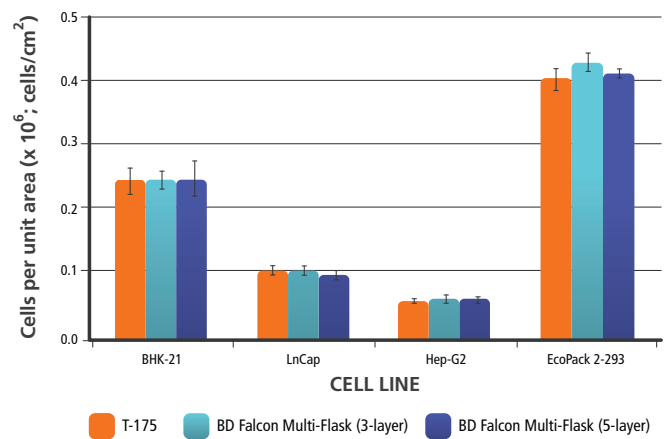
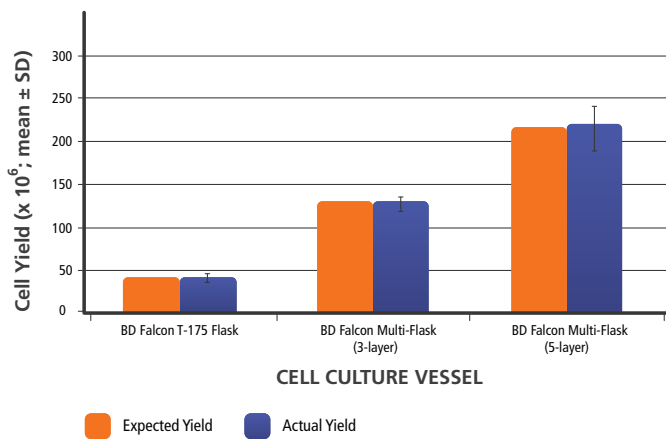
## More Consistent Cell Growth

BD Falcon Multi-Flasks' even distribution of media, proven vacuum-gas tissue culture surface treatment, and effective gas exchange all combine to provide an optimal cell culture environment. The result is high cell yield and a homogeneous cell population.

Visit [bdbiosciences.com/multiflask](http://bdbiosciences.com/multiflask) for more information.



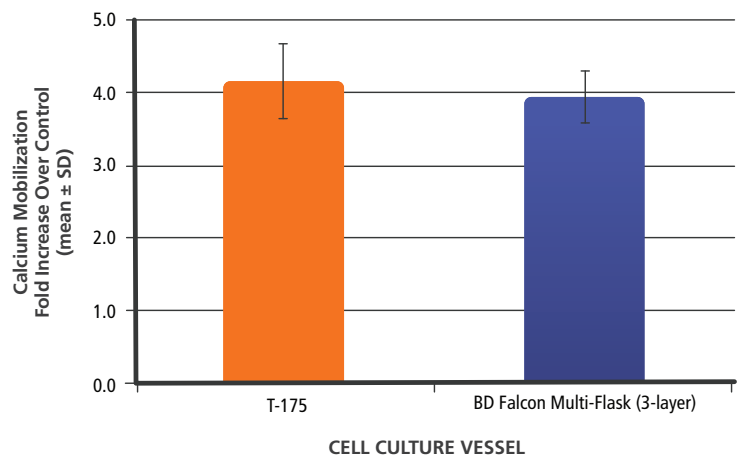
## PREDICTABLE SCALE-UP



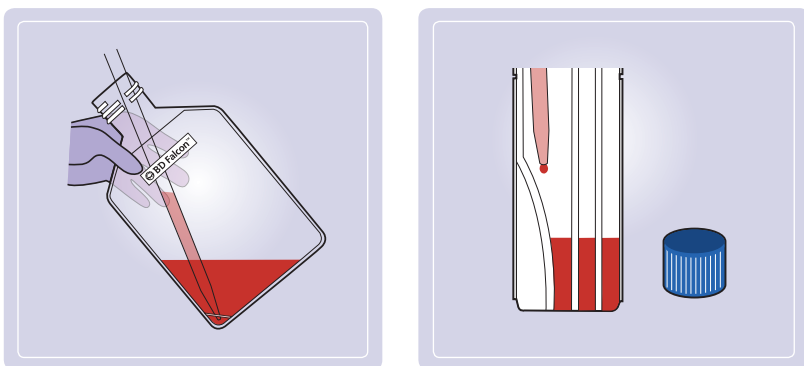
Three and five times the number of BHK-21 cells were grown and recovered from 3- and 5-layer BD Falcon Multi-Flasks compared to T-175 flasks. Expected yield (left panel) was determined using mean cell yield from control T-175 flasks multiplied by three and five times for the 3- and 5-layer BD Falcon Multi-Flasks, respectively. Cell yield per cm<sup>2</sup> (right panel) was equivalent in 3- and 5-layer BD Multi-Flasks and T-175 flasks for BHK-21, LnCap, Hep-G2 and EcoPack™ 2-293 cells.

## CONSISTENT CELL PHYSIOLOGY

CHO-M1 cells were grown in a T-175 and a 3-layer BD Falcon Multi-Flask for 72 hours. Cells were harvested and re-seeded on 96-well PDL plates for GPCR Calcium mobilization assay. Cells were challenged with M1 agonist, carbachol (300 μM) and responses were recorded 1 minute following compound addition. Data is expressed as fold-increase in calcium flux compared to control cells challenged with assay buffer (no drug). No significant difference in agonist response was observed between cells harvested from either vessel type. Data shown is representative of three independent experiments.



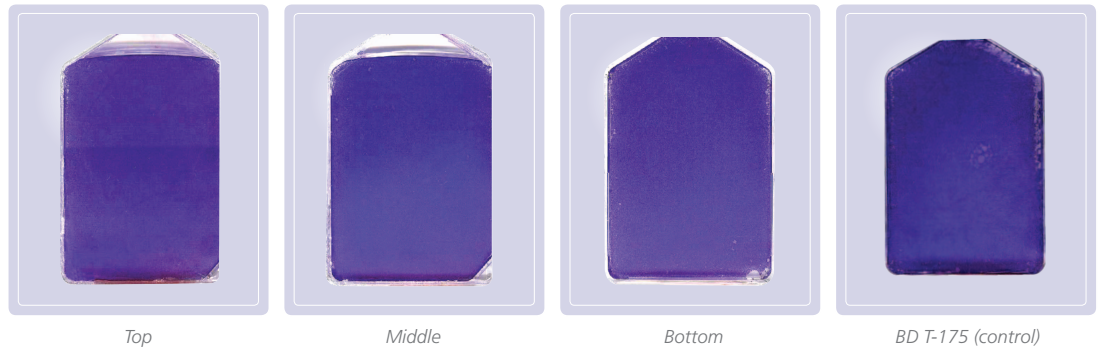
## SIMPLIFIED WORKFLOW



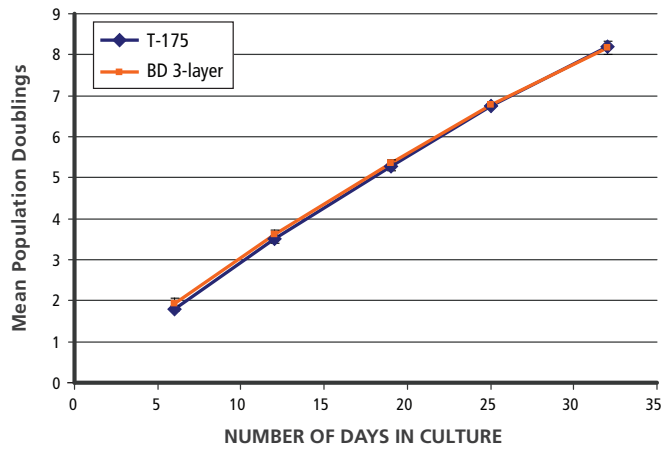
- Pipet access eliminates the need for pouring. It also facilitates the use of a wide range of liquid volumes (up to 50 ml/layer); efficient recovery of valuable cells and reagents; and minimizes the risk of contamination.
- Mixing port eliminates mixing outside the vessel, saving you time and effort. This unique in-vessel mixing allows rapid and uniform distribution of cells and reagents in all layers of the flasks.
- Compatibility with similar volumes of reagent usage and cell seeding densities as T-175 flasks makes scaling up a familiar and simple process.

## CONSISTENT CELL GROWTH

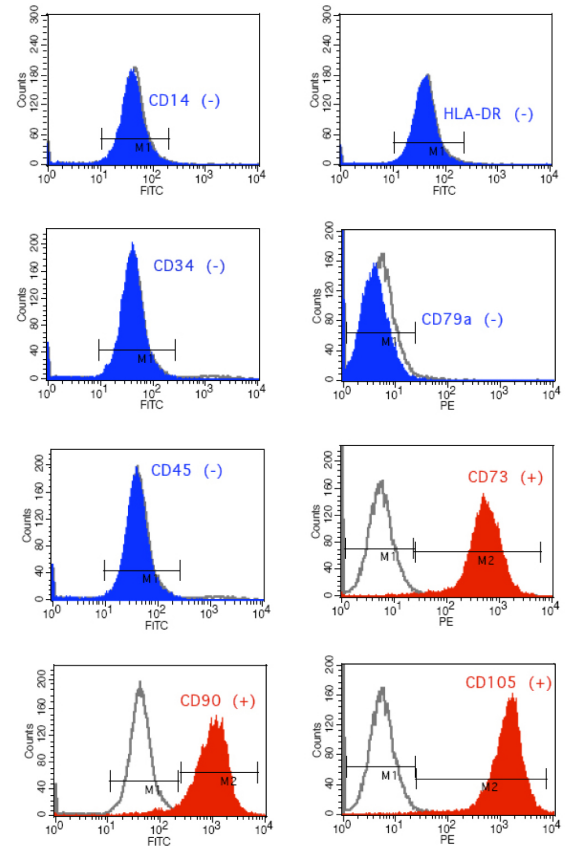
This figure illustrates uniform cell growth between layers of BD Falcon Multi-Flasks. BHK-21 cells grown to >80% confluence in 3-layer BD Falcon Multi-Flasks and control T-175 flasks were fixed and stained with crystal violet. Control flasks and individual layers of the BD Falcon Multi-Flasks were cut and scanned.



## IDEAL FOR MULTIPOTENT STEM CELLS

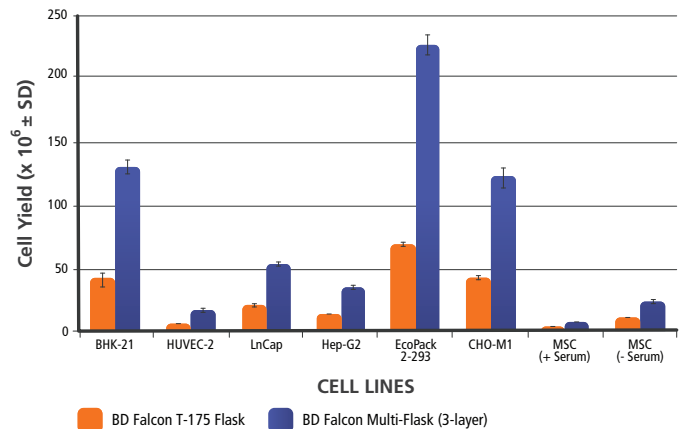


Human Mesenchymal Stem Cells (hMSCs) were cultured in MSCGM™ medium (Lonza) and seeded at 4,000 to 5,000 cells/cm<sup>2</sup> in T-175 flasks and 3-layer BD Falcon Multi-Flasks. Cells were cultured until they reached 80% confluence (~6 days). Cells were harvested, counted, and cumulative population doublings of hMSCs from each vessel type were calculated over five consecutive passages. Immunophenotypic properties of hMSCs grown in BD Falcon Multi-Flasks as determined by flow cytometric analysis (BD FACS™) confirmed that hMSCs were negative for surface markers CD14, CD34, CD45, CD79a, and HLA-DR and positive for expression of surface markers CD73, CD90, and CD105. Respective isotype controls for each marker antibody are shown in grey.



## COMPATIBLE WITH YOUR CELL LINES

Diverse cell lines and primary cultures (with and without serum) can be grown and efficiently recovered from BD Falcon Multi-Flask cell culture vessels. This graph illustrates the increased cell yield one can obtain from BD Falcon Multi-Flasks as compared to control T-175 flasks for various cell lines.



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## PRODUCT SPECIFICATIONS

WORKING VOLUME RANGE	≥5 ml per layer for dissociating ≤50 ml per layer for cell expansion
MOLDED-IN GRADUATIONS	0 to 50 ml per layer in 10 ml increments
GRADUATION ACCURACY	10%
CAP VENT MEMBRANE	0.2 µm hydrophobic membrane
CELL GROWTH SURFACE	Tissue culture-treated, optically clear

## ORDER INFORMATION

BD Falcon Cell Culture Multi-Flask

Description	Qty./Pack	Qty./Case	Cat. No.
3-LAYER TISSUE CULTURE-TREATED, 525 CM <sup>2</sup>	2	12	1482695
5-LAYER TISSUE CULTURE-TREATED, 875 CM <sup>2</sup>	1	8	1482696

## ACCESSORIES

Description	Qty./Pack	Qty./Case	Cat. No.
<b>BD Falcon Pipets</b>			
ASPIRATING PIPET 2 ML INDIVIDUALLY WRAPPED	50	200	13-675-16
ASPIRATING PIPET 5 ML INDIVIDUALLY WRAPPED	50	200	13-675-10CC
10 ML INDIVIDUALLY WRAPPED PAPER-PLASTIC	50	200	13-675-20
10 ML INDIVIDUALLY WRAPPED PLASTIC-PLASTIC	50	200	13-675-49
SEROLOGICAL PIPET 25 ML INDIVIDUALLY WRAPPED	50	200	13-675-50
SEROLOGICAL PIPET 100 ML INDIVIDUALLY WRAPPED	5	50	13-675-73

<b>BD Falcon Tubes</b>			
50 ML POLYPROPYLENE CONICAL TUBE	25	500	14-432-22
175 ML POLYPROPYLENE CONICAL TUBE	8	48	05-538-62
225 ML POLYPROPYLENE CONICAL TUBE	8	48	05-538-61

<b>BD Falcon Flasks</b>			
To see the complete line of BD Falcon Flasks, visit <a href="http://www.bdbiosciences.com">www.bdbiosciences.com</a>			

**For technical assistance, contact BD Biosciences Technical Support at:**

tel: 877.232.8995 or 978.901.7389



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