

Data Sheet

AVAILABLE
JANUARY 2010

## Millicell® HY Multilayer Culture Flasks

Your big experiment is just a few passages away.



## Life just got simpler.

We can't make your cells grow any faster, but with our flasks, you'll get higher yields from the same work.

When growing large numbers of cells, you need a high throughput flask to save space and time. Each Millicell HY (high yield) flask provides a consistent, quality growth environment across all layers, with the same volume of media in each layer.

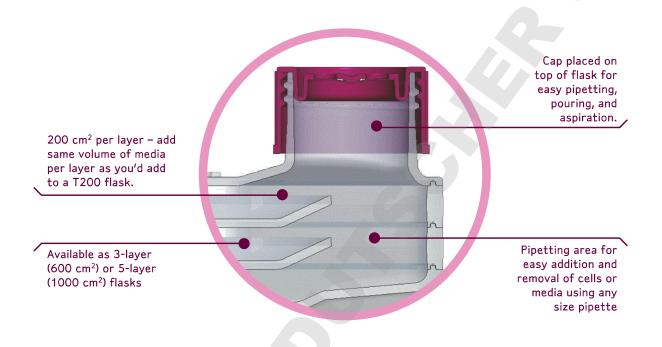
Recovering cells is as easy as growing them. With easy access to pipetting or pouring, Millicell HY flasks deliver reproducible, high yields of healthy cells.

### Advantages of Millicell HY Flasks

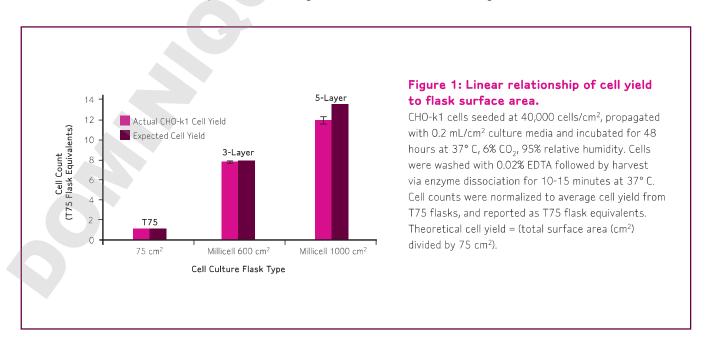
- Consistently high cell yields, uniform health across all layers
- Same media requirements (volume per unit area) as traditional T-flasks
- Familiar form enables easy transition from single-layer culture flasks
- Easy media removal from flask with ergonomic cap location
- Uniform culture conditions without media leaking or spillover between layers
- Fits under microscopes for monitoring cell health and confluency
- Stackable design saves incubator space
- Barcoding available for automated cell culture systems

# Consistent, high yields of healthy cells.

Designed to facilitate high recovery, Millicell HY flasks are innovative and intuitive.



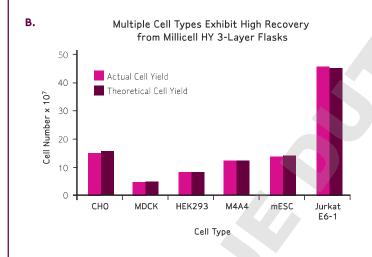
Yields of adherent cells grown in Millicell HY flasks are linearly proportional to total surface area, and closely match theoretical yields.



# High yields for all your cell lines.

Recovery and viability data show excellent performance across both adherent and suspension cell lines.

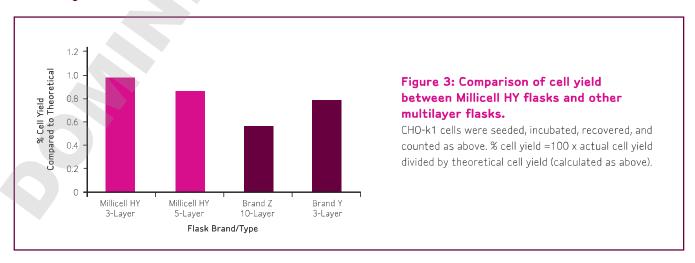
Α.					
Cell Type	Cells Recovered from T75	Cells Recovered from 600 cm² Millicell HY Flask	% Recovery (Millicell HY flask compared to T75)	% Cell Viability	
CHO	1.87 x 10 <sup>7</sup>	1.45 x 10 <sup>8</sup>	97%	98%	
MDCK	5.55 x 10 <sup>6</sup>	4.37 x 10 <sup>7</sup>	98%	98%	
HEK293	1.01 x 10 <sup>7</sup>	7.95 x 10 <sup>7</sup>	98%	99%	
M4A4	1.46 x 10 <sup>7</sup>	1.2 x 10 <sup>8</sup>	103%	98%	
mESC	1.69 x 10 <sup>7</sup>	1.32 x 10 <sup>8</sup>	97%	88%	
Jurkat E6-1	5.58 x 10 <sup>7</sup>	4.52 x 10 <sup>8</sup>	101%	95%	



## Figure 2: Cell yield and viability for six cell lines grown in Millicell HY flasks.

(A) Numbers of cells recovered from T75 flasks and Millicell HY flasks, and percent recovery from Millicell HY flasks compared to T75 cell yields. (B) Graphical comparison of actual cell yields from Millicell HY flasks and theoretical cell yields. Cells were seeded at 20,000-40,000 cells/cm² with 0.2 mL/cm² media and incubated for 48 h at 37° C, 6% CO₂/95% relative humidity. Cells were washed with either PBS or 0.02% EDTA followed by harvest via enzyme dissociation for 10-15 min at 37° C. Cell count and viability measurements were performed using a guava® easyCyte™-96 flow cytometer with guava ViaCount® Flex Reagent. Theoretical cell yield = (cells recovered from one T75 flask) ÷ 75 cm² x (total surface area in cm²).

Millicell HY flasks provide better cell recovery compared to other multilayer flasks.



### Make time for your research with Millipore cell culture products.

#### Millicell HY Flasks

These multilayer flasks for high yield cell culture are easy to use and stem cell tested.

Description	No. of Layers	Total Surface Area (cm²)	Qty/Pk	Catalogue No.
Millicell HY Flask*§	3	600	16	PFHYS0616
STEM CELL TESTED	5	1000	8	PFHYS1008

### Stericup® Filter Units

Stericup filter devices combine a filter unit with a receiver flask and cap for processing and storage.

Description	Membrane/Application	Pore Size (µm)	(mL)	(mL)	Qty/Pk	Catalogue No.
Stericup-GP Filter Units§	Millipore Express® PLUS (PES) /	0.22**	150	150	12	SCGPU01RE
STEM CELL TESTED	fast filtration of tissue culture		250	250	12	SCGPU02RE
	media and buffers		500	500	12	SCGPU05RE
			500	1000	12	SCGPU10RE
			1000	1000	12	SCGPU11RE
Stericup-VP Filter Units	Millipore Express PLUS (PES) /	0.1	250	250	12	SCVPU02RE
	removal of mycoplasma <sup>†</sup>		1000	1000	12	SCVPU11RE

### Steritop® and Steriflip® Filter Units

Steritop bottle-top filters fit 33 mm and 45 mm openings, and Steriflip devices filter solutions from 50 mL conical tubes.

Description	Membrane/Application	Pore Size (µm)	Funnel Capacity (mL)	Receiver Bottle (mL)	Qty/Pk	Catalogue No.
Steritop-GP Filter Units,	Millipore Express PLUS (PES) /	0.22	150	NA	12	SCGPS01RE
33 mm <sup>§</sup>	fast filtration of tissue culture		250	NA	12	SCGPS02RE
STEM CELL TESTED	media and buffers		500	NA	12	SCGPS05RE
			1000	NA	12	SCGPS10RE
Steritop-GP Filter Units,	Millipore Express PLUS (PES) /	0.22	150	NA	12	SCGPT01RE
45 mm	fast filtration of tissue culture		250	NA	12	SCGPT02RE
	media and buffers		500	NA	12	SCGPT05RE
			1000	NA	12	SCGPT10RE
Steriflip Filter Units	Millipore Express PLUS (PES) /	0.22	50	50	50	SCGP00525
	fast filtration of tissue culture					
	media and buffers					

- \* Available with barcodes please contact technical service for more information.
- \*\* 0.10 µm pore size is designed to enhance maximum filtration of tissue culture media but it is not a guarantee of complete mycoplasma removal.
- § Stem cell testing was conducted by using the device in question for culturing mESC for five passages, then verifying by flow cytometry that viability and pluripotency are unchanged.



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