



How much media, PBS and trypsin do I use with my Thermo Scientific Nunc Cell Factory System?

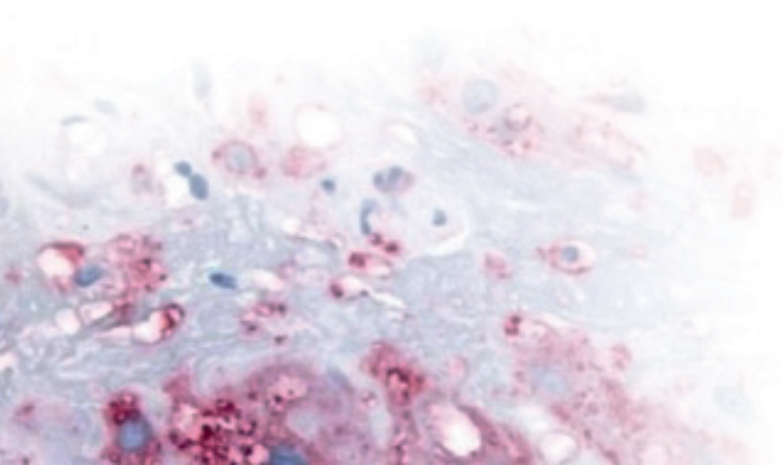
Culturing in a Thermo Scientific™ Nunc™ Cell Factory™ system is as simple as culturing in T-flask or dish. Seed the Cell Factory system with the same medium and cell density (cells/cm²) as in a flask or dish. A volume of 150-200 mL per tray (2.4 - 3.2mm depth) is commonly used.

Simply identify the size of the Cell Factory system you are using in the chart below and apply the suggested working volumes for each step of the cell culturing process.

	Surface Area, cm ²	Seeding	Harvesting		
		Media*	Phosphate buffered saline (PBS) w/o Ca++ and Mg++	Trypsin 0.25 % trypsin/EDTA	Stopping cell dissociation Media
CF1	632	150-200mL	30-40mL	20mL	40mL
CF2	1264	300-400mL	60-80mL	30mL	80mL
CF4	2528	600-800mL	120-160mL	60mL	160mL
CF10	6320	1500-2000mL	300-400mL	150mL	400mL
CF40	25280	6000-8000mL	1200-1600mL	600mL	1600mL
HDCF 3	1896	450-600mL	90-120mL	60mL	120mL
HDCF 13	8216	1950-2600mL	390-520mL	260mL	520mL
HDCF 52	32864	7800-10400mL	1560-2080mL	1040mL	2080mL

* To ensure equal distribution of cells on each layer, cells should be added to the media and mixed thoroughly prior to filling the Cell Factory System.

Suggested volumes are based on the cultivation of VERO and MRC-5 cell lines. Some cell lines may require more or less volume.



For assistance with choosing the right Nunc Cell Factory System for your application, please refer to our “A Frequently Asked Question – How do I Choose the Right Cell Factory System for my application”.

Q
A



Smart Tips
Thermo Scientific Nunc
High Density Cell Factory System

How do I choose the right Cell Factory system for my application?

The Thermo Scientific™ Nunc™ Cell Factory™ system is available in several styles and configurations. The key to selecting the appropriate Cell Factory system is in the answers to these two questions:

- **How many cells do you need to produce per batch?**
- **What are your cells used for?**
 - Research
 - Process scale-up
 - Pilot scale (non-GMP)
 - GMP production
 - Seeding a larger vessel (i.e. bioreactor) for GMP production

To select the Cell Factory system size you need, simply complete the following equations:

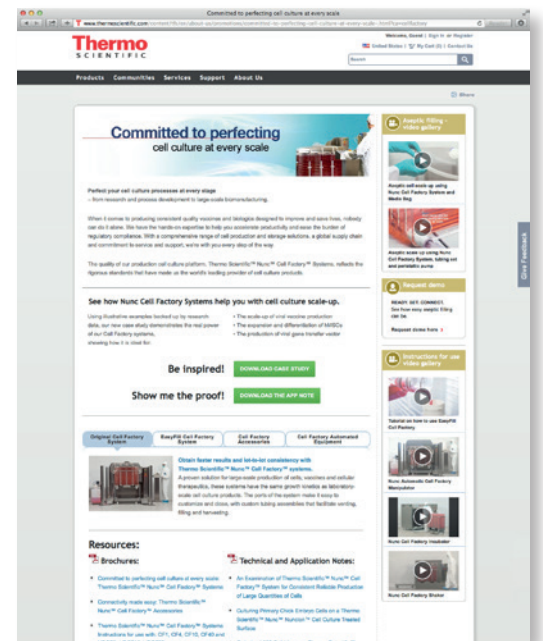
Step 1:
Estimate your maximum cell density per Cell Factory layer by:
(Required cell density per cm²) x (632cm²) = cell density per layer
Example: 10⁶ x 632 cm² = 6.3 x 10⁸

Step 2:
Calculate the number of layers needed per batch by:
(Number of cells required per batch) / (cell density per layer) = number of layers needed
Example: 6 x 10⁹ / 6.3 x 10⁸ = 9.5 layers
Result: A 10-layer Cell Factory system would be an ideal solution for this example.

Step 3:
Choose the Cell Factory system that best matches your process and work environment from the application chart provided below.



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The screenshot shows the Thermo Scientific website interface. The main heading is "Committed to perfecting cell culture at every scale". Below this, there are several sections: "Perfect your cell culture processes at every stage", "See how Nunc Cell Factory Systems help you with cell culture scale-up", and "Be inspired! Show me the proof!". There are also links for "Download our case study" and "Download the app notes". The right sidebar contains various resources and videos related to the Cell Factory system.

For more information about Nunc Cell Factory systems, visit www.thermoscientific.com/cellfactory or contact your local Thermo Scientific sales representative for assistance.

www.thermoscientific.com/cellfactory

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