

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”.

QA



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

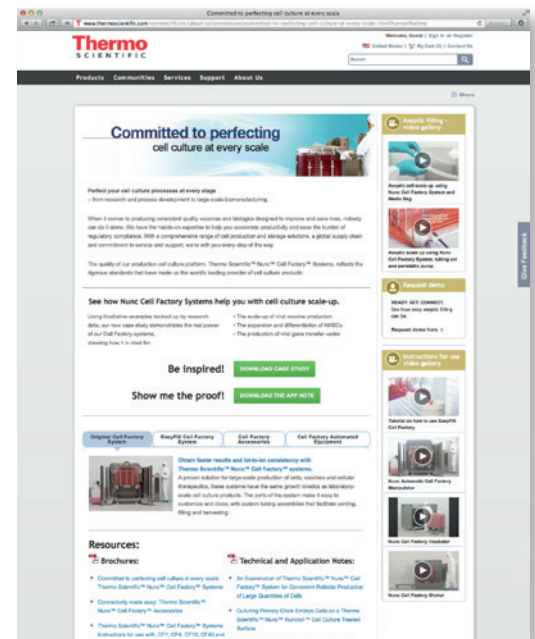
To select the Cell Factory system size you need, simply complete the following equations:

Step 1:
Estimate your maximum cell density per Cell Factory layer by:
(Required cell density per cm²) x (632cm²) = cell density per layer
Example: $10^4 \times 632 \text{ cm}^2 = 6.3 \times 10^6$

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: $6 \times 10^6 / 6.3 \times 10^6 = 9.5 \text{ layers}$
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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Committed to perfecting cell culture at every scale

Perfect your cell culture processes at every stage

When it comes to producing consistent quality, research and biopharma designed to improve and save time, industry can do it alone. We have the hardware expertise to help you accurately and safely scale the number of regulatory compliant, high capacity range of cell production and design solutions, a global supply chain and commitment to service and support, we're with you every step of the way.

The quality of our production cell culture platform, Thermo Scientific™ Nunc™ Cell Factory™ Systems, reflects the rigorous standards that have made us the world's leading provider of cell culture products.

See how Nunc Cell Factory Systems help you with cell culture scale-up:

- The scale-up of cell media production
- The expansion and differentiation of iPSCs
- The production of viral gene transfer vectors

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Original Cell Factory System | Ready-to-Go Cell Factory System | Cell Factory Accessories | Cell Factory Automated Equipment

Obtain faster results and better consistency with Thermo Scientific™ Nunc™ Cell Factory™ systems. A proven solution for large-scale production of cells, vaccines and cellular therapeutics, these systems have the same growth results as laboratory scale cell culture products. The scale of the system means it meets the automation and clean, with custom built capabilities for flexible scaling, filling and harvesting.

Resources:

Brochures:

- Committed to perfecting cell culture at every scale: Thermo Scientific™ Nunc™ Cell Factory™ Systems
- Connectivity made easy: Thermo Scientific™ Nunc™ Cell Factory™ Accessories
- Thermo Scientific™ Nunc™ Cell Factory™ Systems: Introduction to use with 10T, 20T, 40T, 80T, 160T and 320T

Technical and Application Notes:

- An Expansion of Thermo Scientific™ Nunc™ Cell Factory™ Systems for Consistent Reliable Production of Large Quantities of Cells
- Culturing Primary Chick Embryo Cells in a Thermo Scientific™ Nunc™ Cell Factory™ System: Cell Culture Transfer Surface

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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