Smart Notes

Highlighting innovative features and techniques for Thermo Scientific Nunc TripleFlask

How do I evenly distribute my cell suspension among the multiple growth surfaces in a triple-layer flask?

Technique is the key. Always start with pouring a homogenous cell suspension carefully into a triple-layer flask. After letting the volume equilibrate among the three layers in the upright position, hold the flask on its side, at an approximately 75° angle to the workbench, before gently and quickly laying it down on its growth surface. The back-tilting at this specific angle enables equal distribution of the cell suspension among the three layers.

The Thermo Scientific[™] Nunc[™] TripleFlask[™] provides a total of 500 cm² surface area for cell attachment. It is a great tool for saving incubation space, improving lab productivity and supporting automated cell culture. Evenly seeding the cells among the three layers in a TripleFlask ensures uniform growth within the flask, allowing for better consistency between passages of cells. Closely following the step-by-step culturing and harvesting technique for the TripleFlask is the key to successfully using this device.

The unique positioning of these flasks is intended to highlight the smaller, space-saving footprint of the 500 cm² TripleFlask in comparison to a 175 cm² single layer flask.



How to reap the benefits of multi-layered flasks?

The Thermo Scientific Nunc TripleFlask Culturing Technique



- 1. Prepare homogeneous cell suspension. Pour the cell suspension into the TripleFlask against the top surface, tilting flask slightly to avoid foam or bubbles. Recommended working volume is 100-200 mL.
- 2. Leave the flask in the upright position for a short time to allow equilibration of liquid in each compartment.
- To ensure equal distribution of cell suspension between layers, it is recommended to hold the Triple Flask on its side for a short time, at an approximately 75° angle to the work surface.
- 4. Quickly, but gently turn the flask from its side to the incubation position.
- 5. During incubation, an equal distribution of culture media is maintained on each layer.
- 6. To harvest cells, use a standard trypsinization procedure as in a single-layer flask. Pour 10-15 mL Trypsin into the Triple Flask and distribute as above. Once trypsinization is complete, pour the resulting suspension into a new container to recover cells.

The TripleFlask is treated with the Thermo Scientific Nunclon[™] Delta surface technology, offering maximum adhesion for a broad range of cell types verified by cell culture testing on every lot of the TripleFlask.



Cell adhesion tests are performed on Nunclon Delta surface using Life Technologies[™] medium, serum and reagents. Scale bar: 100 µm.

Summary

The Thermo Scientific Nunc TripleFlask offers an ideal solution for both scale up and cell culture automation.

Find the right TripleFlask for your lab, visit thermoscientific.com/tripleflask

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