

Keep the Flask-Based Approach

 125mL to 7L

SCALE SMALL

SCALE LARGER

PROVEN PERFORMANCE

TRANSFER



Scale from early expression to multi-liter culture with the same familiar flask-based workflow.



Study by Leidos Biomedical

A published ExpiCHO™ study used one method across six Optimum Growth® Flask sizes, scaling from 50mL in a 125mL flask to 2L in a 5L flask.

OPERATING RANGE

Typical range: 140–150rpm on a 1in orbit or 110rpm on a 2in orbit. Selected sizes support approximately 40–50% fill.

50mL → 2L

ONE METHOD | SIX FLASK SIZES

50mL IN 125mL	100mL IN 250mL	200mL IN 500mL	500mL IN 1.6L	1L IN 2.8L	2L IN 5L
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Scale Within One Flask-Based System

Transfer when the process requires it.

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At 7L, the Performance Profile Holds

 2.5L to 5L

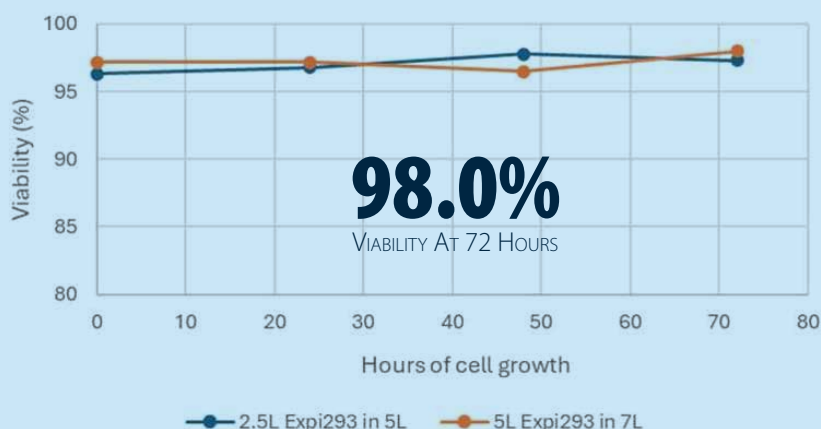
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Viability Cells 5L vs 7L Optimum Growth Flasks



STUDY BY PFIZER

Pfizer compared Expi293 cultures at 2.5L in a 5L flask and 5L in a 7L flask. The 7L culture maintained viability through 72 hours and finished at 98.0%.

Moving from a 5L to 7L flask doubles working volume from 2.5L to 5L.



$$7 \times 5L = 35L$$

MULTI-FLASK CAPACITY

Seven 7L flasks at 5L working volume provide up to 35L of total culture on a compatible shaker.

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7L Flask vs 200L Bioreactor? A Result Worth Noticing



SCALE SMALL

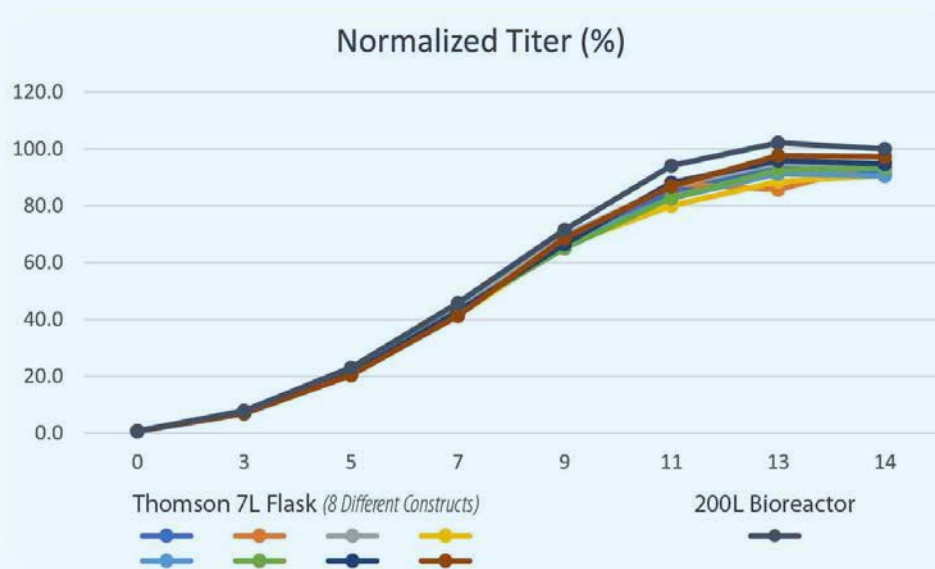
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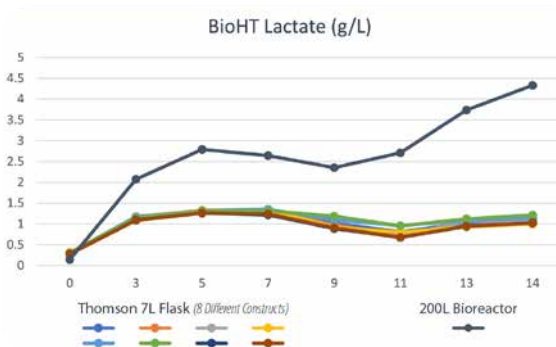
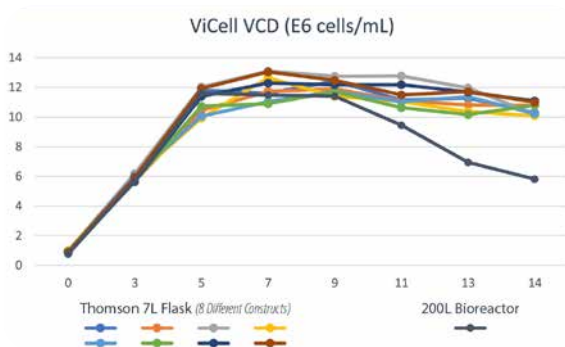
The flask did more than match normalized titer.

In this dataset, the 7L flask showed higher cell density and viability and lower lactate than the evaluated 200L bioreactor.



Study by Lundbeck

Lundbeck compared eight antibody constructs produced in a 7L Optimum Growth® Flask and a 200L bioreactor. Normalized antibody yields were nearly identical across the evaluated constructs.



Together, these profiles help define sampling windows and metabolite benchmarks for the next bioreactor study.

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TRANSFER OPTIONS

Stay in the Flask - or Move Forward on Your Terms.



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Standard Flask + Transfer Cap



Inversion Transfer Cap

Gravity-fed transfer to Cell Bags, bioreactors, or receiving vessels. Offered for 1.6L, 2.8L, and 5L flasks.

Bidirectional Transfer Cap

Peristaltic-pump transfer into or out of the flask. Supports 1.6L, 2.8L, 5L, and 7L flasks.

Multiported Flask



Multiported Flask

Ports are configured before culture for closed feeding, sampling, seeding, transfer, or automation. Available from 125mL through 7L.

Use a Transfer Cap for final transfer or a Multiported Flask for access throughout culture.

sanofi

AUTOMATION STUDY BY SANOFI

Sanofi demonstrated a Multiported 7L workflow at 4L working volume over four days, operating at 150rpm and automatically removing 35mL aliquots. The study shows that integrated access can support automated culture handling - not just final transfer.

HOW THE TWO APPROACHES DIFFER

Transfer Caps convert a standard Optimum Growth® Flask into a transfer-ready vessel at the point of use. The Inversion Cap supports simple, pump-free gravity transfer; the Bidirectional Cap supports controlled movement into or out of the flask.

Multiported Flasks are selected when the culture itself needs ongoing closed access. Feed, sample, seed, or connect to external equipment through an integrated configuration without repeatedly opening the vessel.

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