



7 X 7L Allows for Large Culture Volumes As Replacement of 50L Wave Bags



OptimumGrowth

7L Flask The Bioprocessing Choice!

Part Numbers



Optimum Growth® 7L Flask
Part #: 931117 | Qty/Case: 4



**Multiported
Optimum Growth® 7L Flask**
Part #: 931117-55-14 | Qty/Case: 4



**Multiported
Optimum Growth® 7L Flask**
Part #: 931117-55-18 | Qty/Case: 4

Transfer Cap Available



**Bidirectional Transfer Cap
For Optimum Growth® 7L Flask**
Part #: 931470-8 | Qty/Case: 8

High Working Volume: Supports 5L for mammalian and hybridoma cells (CHO, HEK293) and up to 6L for insect cell lines (SF9, SF21) per flask, delivering up to 35L of expression per shaker.

Scalability: Seamlessly scales from 125mL to 7L, enabling efficient transitions from small-scale experiments to large-scale production without compromising consistency.

Baffle Design: Proprietary baffles ensure high aeration with low shear, maintaining cell viability and maximizing protein yield.

0.2µm Vented Cap: Promotes high gas exchange while maintaining sterility, reducing contamination risks.

Transfer Options: Connects directly to bioreactors or cell bags with bidirectional transfer caps (Part #931470-8) for seamless scale-up.

Scale With 7L Flasks

Thomson 7L Flasks are quickly becoming the gold standard for customers that have been using for mammalian (5L) & insect (6L) cell lines.



🌐 htslabs.com
✉ info@htslabs.com
☎ 800 541.4792
☎ 760 757.8080

We're not just about selling top-quality cell culture flasks, we're here to be your partner in science. "FLASK US Anything," is an invitation to tap into our expertise and get answers to all your lab-related questions.



Large-Scale Growth

Addressing the limitations of large-scale culture methods

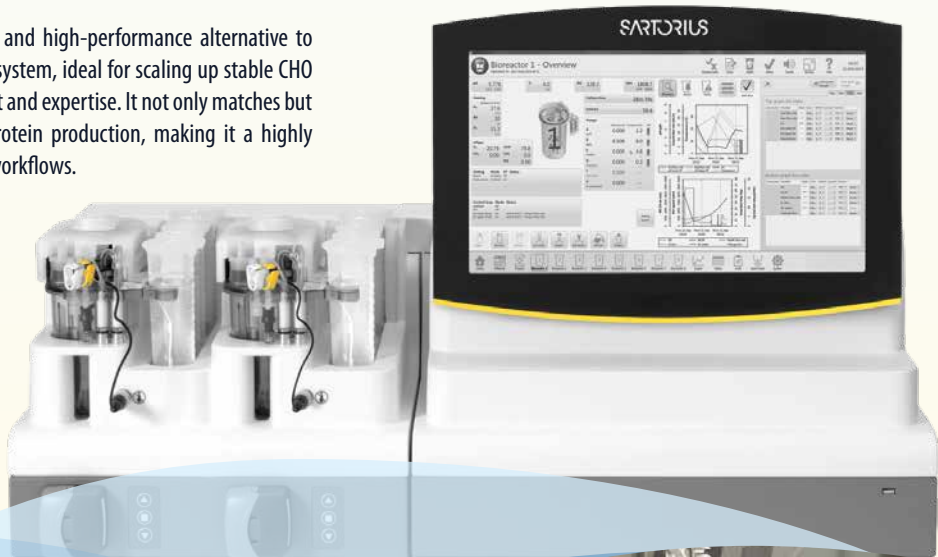
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- ✓ Comparable results
- ✓ Cost efficient
- ✓ Fits on existing platforms
- ✓ Less complicated subparts

Optimum Growth® 7L Flasks vs Ambr® 250 Bioreactor Systems Using Stable CHO Cells

The Thomson Optimum Growth® 7L Flask offers a cost-effective and high-performance alternative to traditional bioreactors like the Ambr® 250 system. This new flask system, ideal for scaling up stable CHO cell lines, reduces the need for substantial investment in equipment and expertise. It not only matches but frequently surpasses bioreactors in cell growth, viability, and protein production, making it a highly efficient solution for labs seeking to optimize their bioprocessing workflows.

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Comparison & Performance

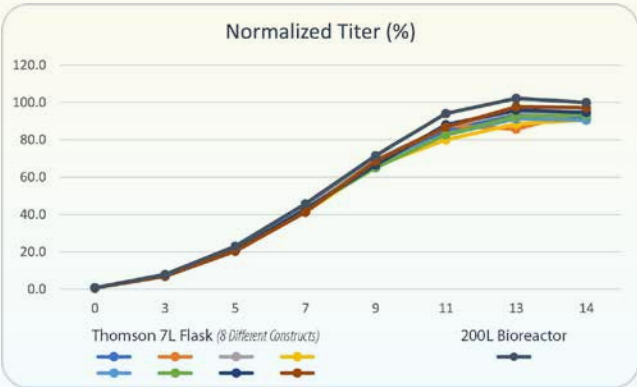


7L Flask Outperforms 200L Bioreactor

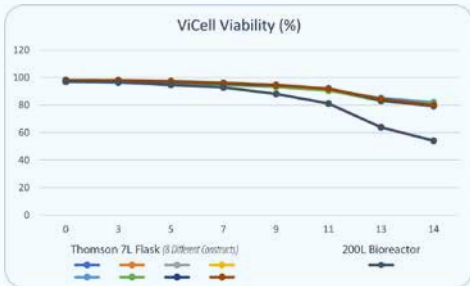
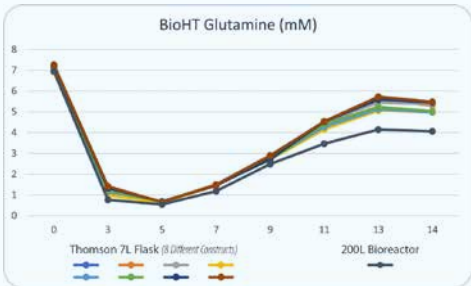
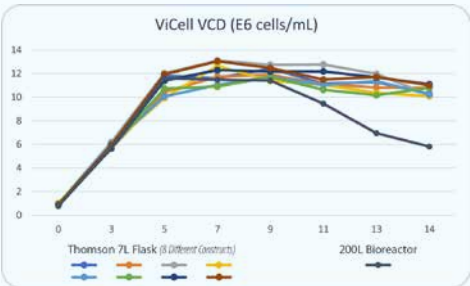
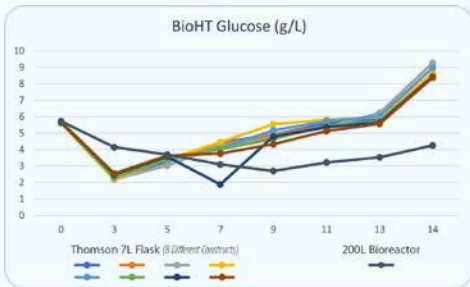
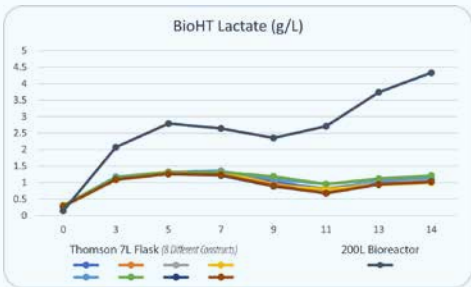
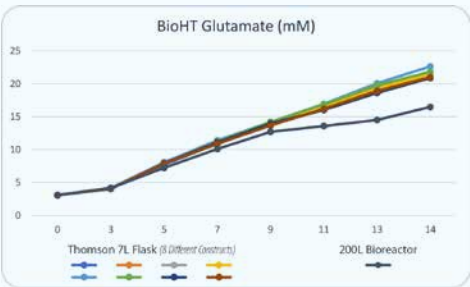
Data provided by Lundbeck

Lundbeck evaluated the 7L Flask against a 200L bioreactor

Our partners at Lundbeck utilized the 7L flask to rapidly scale eight antibody constructs and compared the results to a 200L bioreactor used for standard antibody production. The 7L flask achieved nearly identical yields to the bioreactor while maintaining higher cell density and viability, with lower lactate levels. Culture conditions were set at 150 rpm (25mm orbit), 6% CO2, and 80% humidity, showcasing the flask's ability to deliver bioreactor-comparable performance in a compact, efficient system.



Thomson is not affiliated with Lundbeck

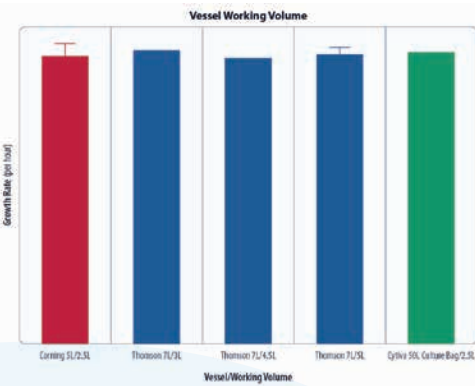


Comparable Results to Wave Bags

Data provided by Lundbeck

Why Are 7L flasks Better than Wave Bags?

Thomson 7L flasks provide exceptional performance for high-volume cell culture production, matching the efficiency of larger 50 L cell culture bags while offering greater flexibility. By utilizing Thomson 7L flasks, researchers can achieve consistent, large-scale cell culture results, making them an ideal alternative for optimizing workflows in demanding bioprocessing environments.



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Scalable Results



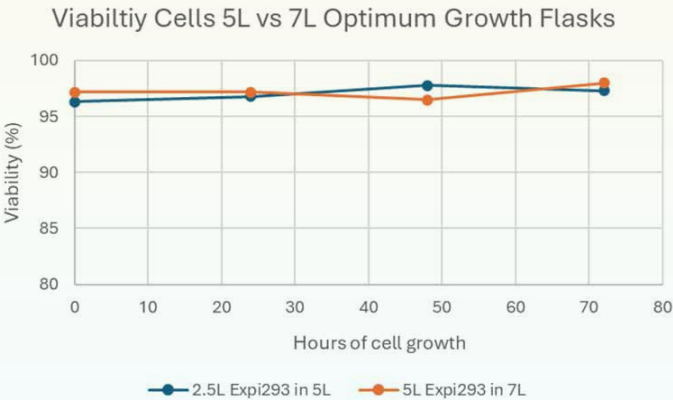
Scalable Results for Expi® HEK293 with Optimum Growth® Flasks

7L Flasks Outperforms 5L Flasks

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Evaluation of Expi® HEK293 Cell Growth

Thomson's Optimum Growth® 5L Flask (2.5L working volume) and Optimum Growth® 7L Flask (5L working volume) deliver exceptional performance for cell culture scaling. The study evaluated Expi® HEK293 cell growth in both 5L and 7L Thomson volumes. The 7L flask (5L working volume) matched the performance of the 5L flask (2.5L working volume) while offering twice the capacity within the same footprint.



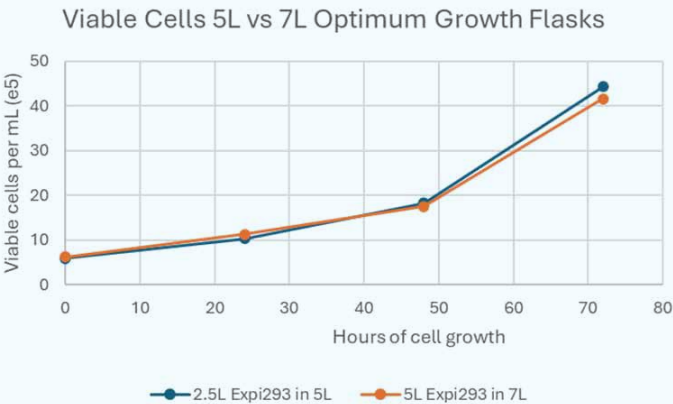
Viability (%)				
Flask ID	0hrs	24hrs	48hrs	72hrs
2.5L Expi293 in 5L	96.3	96.8	97.8	97.3
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Viable Cell Count at e6 cells/ml				
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High-Aeration Design Ensures Optimal Conditions

Its high-aeration design ensures optimal conditions for daily cell doubling and high viability, preparing cells for downstream applications. The 7L flask adds greater versatility to the Optimum Growth® line, supporting flexible scaling options. All flasks were shaken at 125 rpm on a 0.75" (19mm) orbital shaker.

Thomson is not affiliated with Pfizer & ThermoFisher



Scalable Results with Every Optimum Growth®

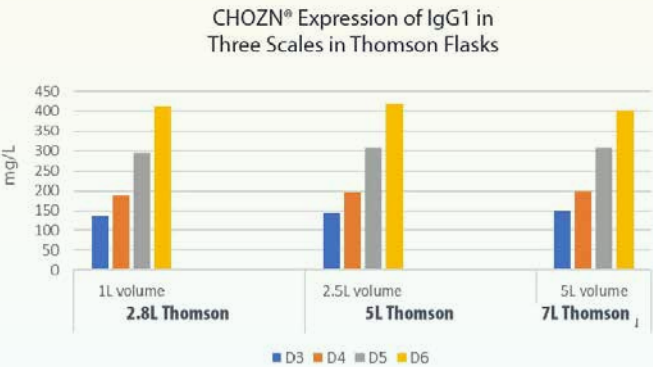
Consistent IgG1 Expression Across Various Scales

Data provided by large pharma customer

2.5L(5L) & 5L(7L) Final volume

Thomson 7L flasks are ideal for scaling up protein production in transient CHO, stable CHO, HEK293, and insect cells, supporting final volumes up to 5L-6L. They ensure scalable protein quality and titer, as demonstrated by consistent IgG1 expression across various scales.

Thomson is not affiliated with MilliporeSigma



35 Liters Per Shaker



7 X 7L Allows for Large Culture Volumes
As Replacement of 50L Wave Bags

Mammalian, Hybridoma, Microbial & Insect Cell Lines

7L Fill Volume & Shake Speeds

Cell Line	Fill Volume	Working RPM Range 1" (2.54cm) 2" (5.08cm)	Vol./Size Ratio
Mammalian	2.8-5L	140-150 110	40-70%
Insect	Up to 6L	135 N/A	85%

Accuracy & Integrity

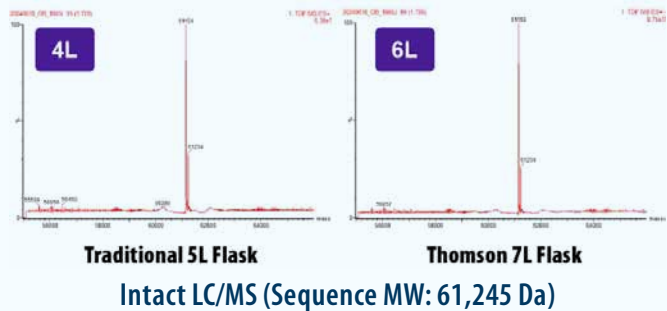


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Mass Spec analysis of protein expressed in the Thomson Optimum Growth® 7L Flask confirms identity of the expression target. This precise measurement validates the flask's ability to produce proteins with high accuracy and integrity.

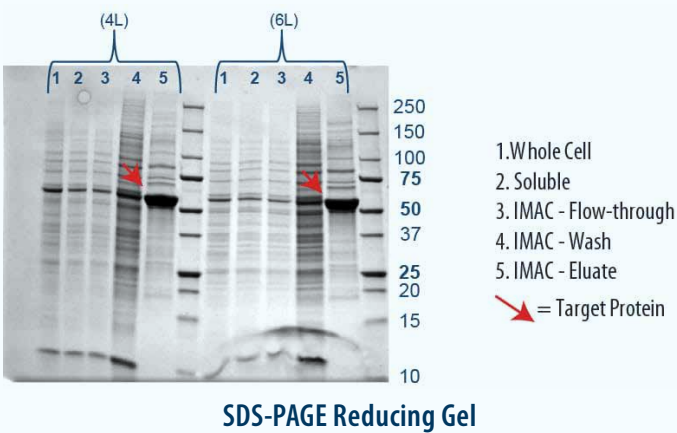


Protein of Interest - Affinity Capture/Elution (IMAC)

LC/MS & SDS-PAGE Results

The LC/MS results show the Thomson 7L Flask's suitability for applications requiring rigorous protein characterization. Data shows the flask produces consistent, high-fidelity protein outputs for downstream analytical workflows.

The Thomson Optimum Growth® 7L Flask is one of the best solutions for high-volume cell culture, offering scalability, efficiency, and performance.



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Robotic Friendly

Gain Deck Space with Thomson 7L & Multiported flasks for Off-Deck Reagent Addition in Automated Workflows

Multiported Optimum Growth® 7L Flask and Transfer Cap

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 **OptimumGrowth®**

7L Flask

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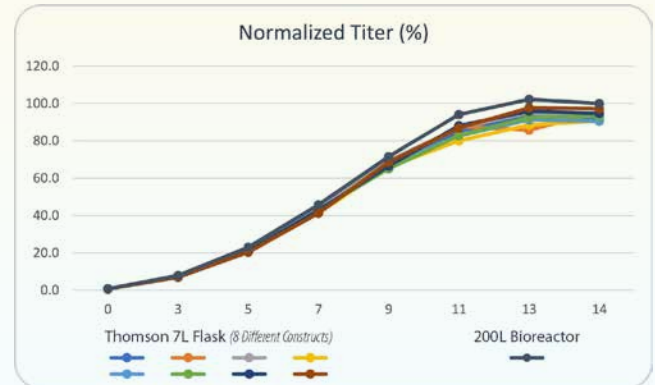


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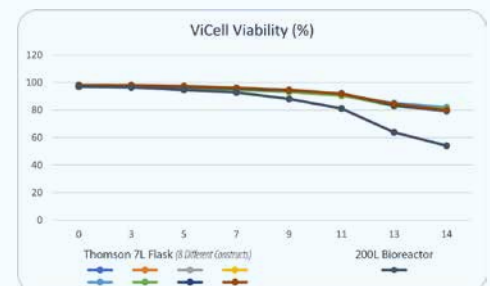
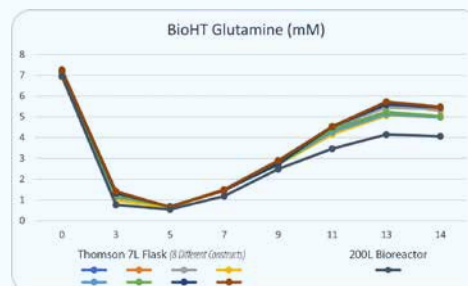
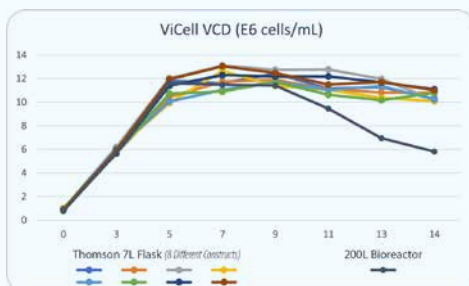
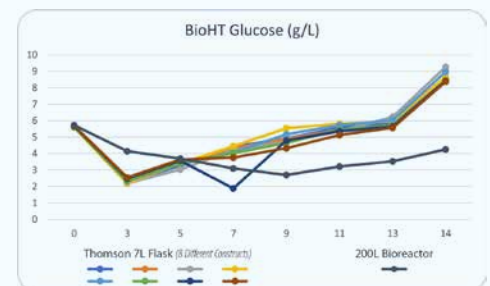
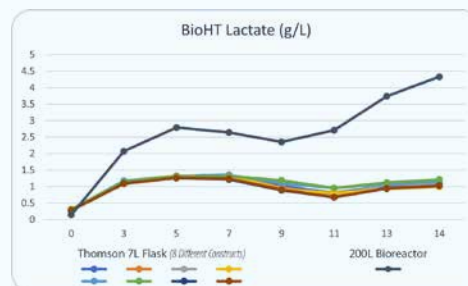
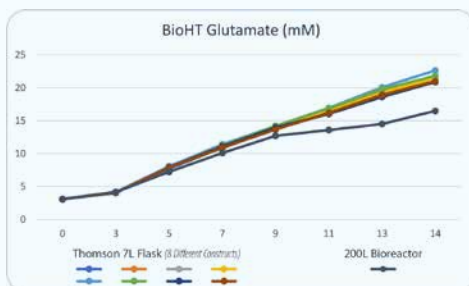
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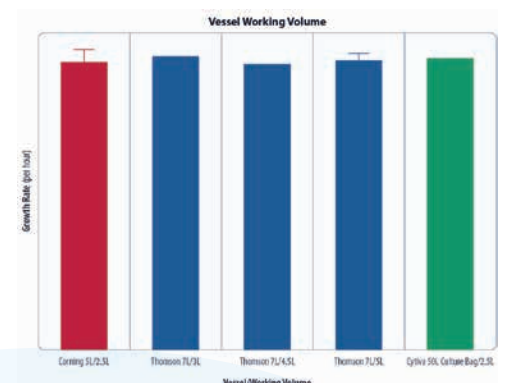
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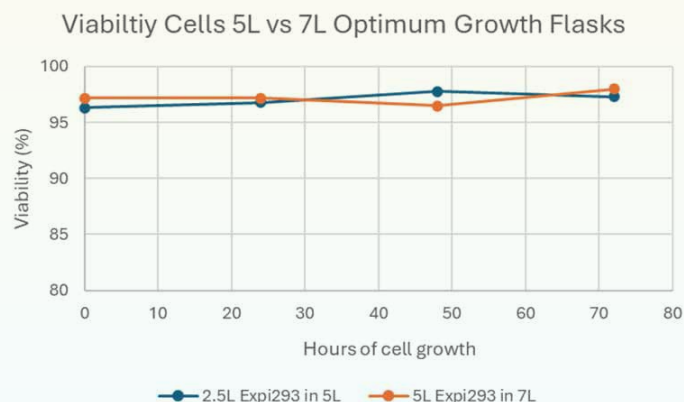


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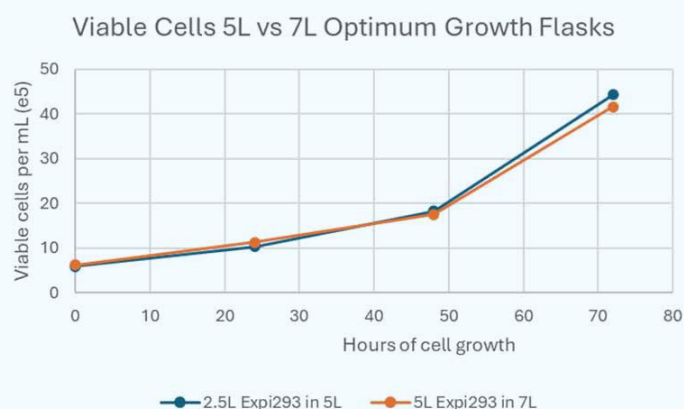
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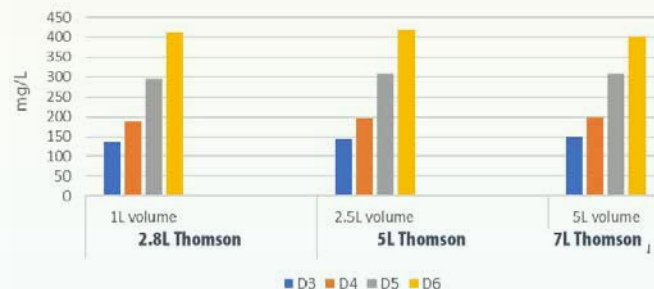
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CHOZN® Expression of IgG1 in Three Scales in Thomson Flasks



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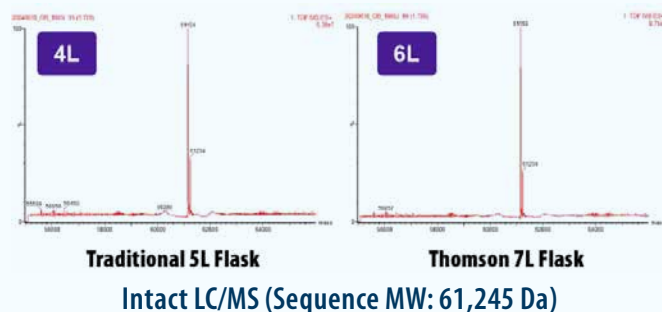


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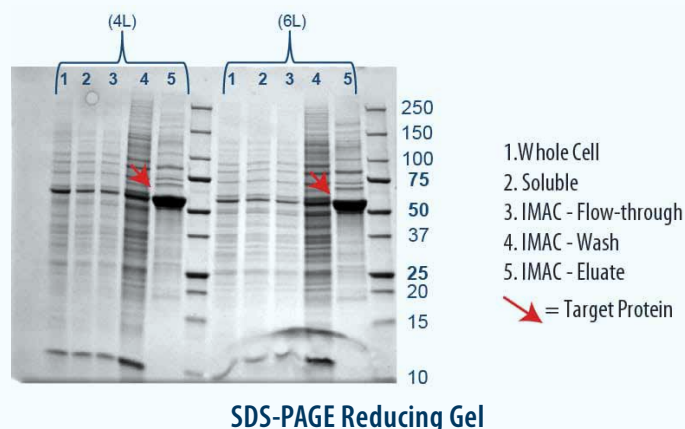


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