

Accelerate Development with AdaptPD CHO-MK Platform Media

AdaptPD CHO-MK Medium A

AdaptPD CHO-MK Feed 1



| Optimized to achieve high productivity in CHO-MK cells for advanced biologics

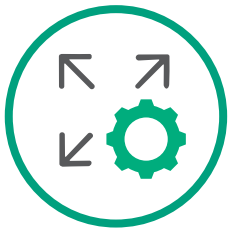
A Novel Platform to Maximize CHO-MK Cell Performance

Specifically designed for CHO-MK cell cultures in fed-batch processes for the production of monoclonal antibodies and recombinant proteins, **AdaptPD CHO-MK Medium A** and **AdaptPD CHO-MK Feed 1** provide an efficient, adaptable platform to maximize high cell density growth and titers.



Unparalleled Productivity

Achieve titers up to 10–12 g/L in 4–7 days, compared to the standard 14 days with conventional CHO cell cultures



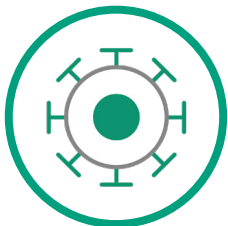
Scalable Performance

Adapt to a variety of workflows by maintaining high performance from small- to large-scale bioreactors



Improves Process Efficiency

Increase productivity 2–3x and accelerate biologics development



Surpasses Conventional Methods

AdaptPD CHO-MK Media Platform for the novel CHO-MK^{1,2} cell line exceeds performance in cell growth, titer, and viability versus conventional CHO host cell lines

Expedite mAb Therapies with Higher Growth and Titters

Increased Cell Growth Compared to Conventional CHO Host Cell Lines

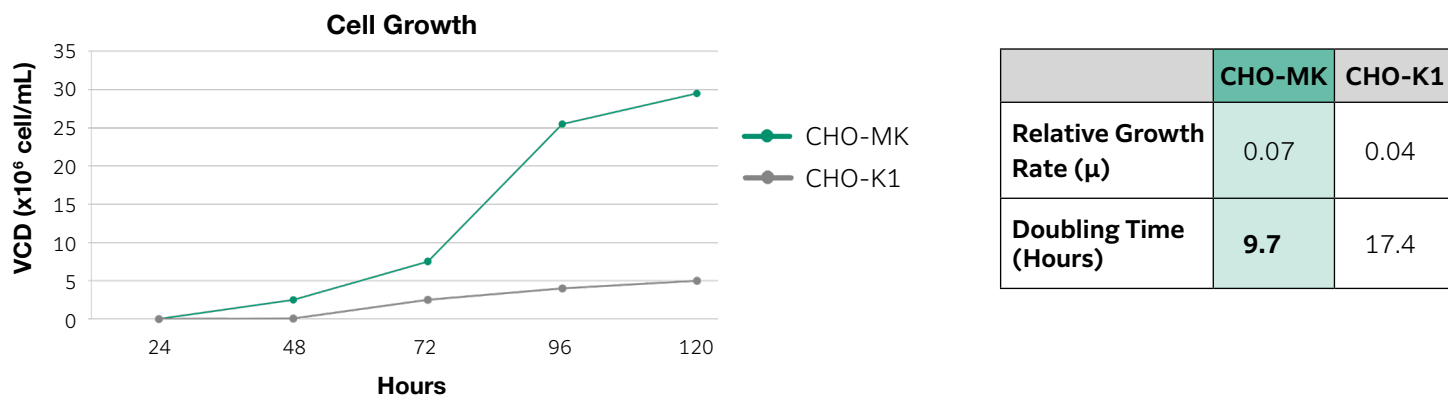
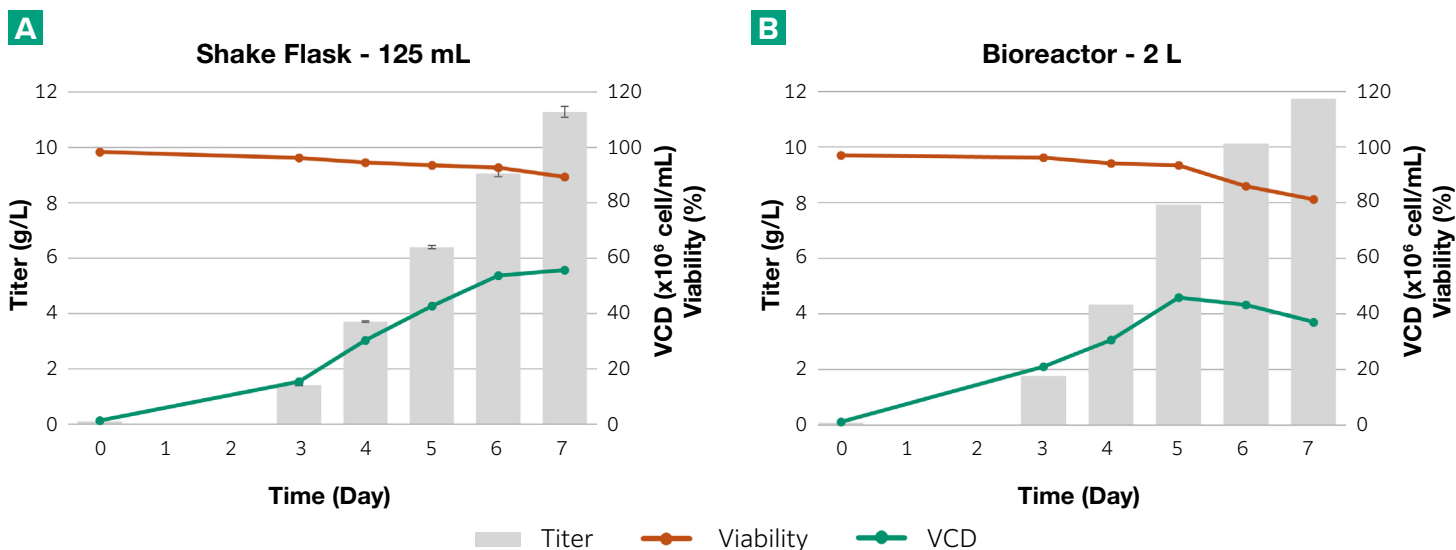


Figure 1. CHO-MK cell line exhibits a significantly higher cell growth compared to the conventional CHO host cell line.

High Productivity in Shake Flask and Bioreactor Scales



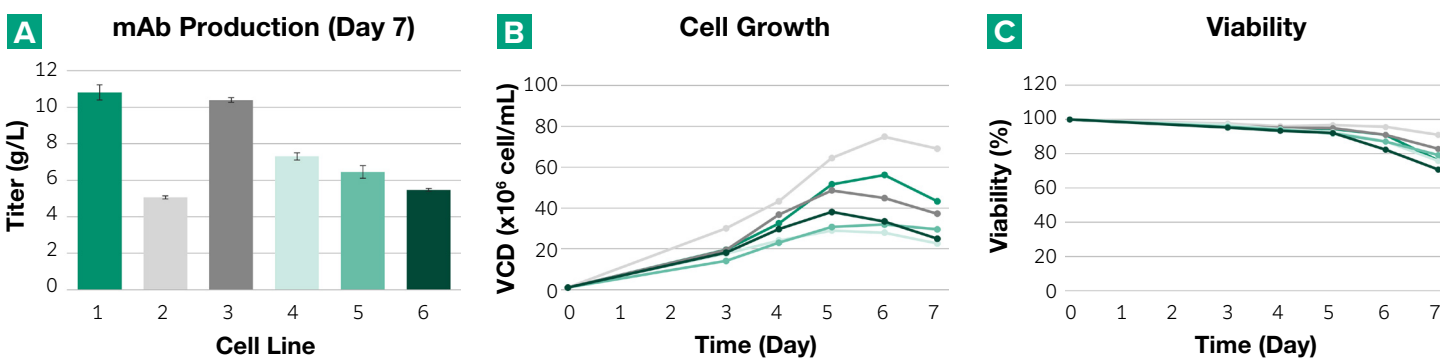
Conditions	Shake Flask	Bioreactor
Seeding Density	1.0 x 10 ⁶ cells/mL	1.0 x 10 ⁶ cells/mL
Feed Volume	8% (Daily on Day 3 to Day 7)	10% (Daily on Day 3 to Day 7)
Methods	25 mL in 125 mL baffled flask, 150 rpm, 37°C, 5% CO ₂ , with glucose addition	750 mL in 2 L bioreactor (Biott, Japan), 200 rpm, 37°C, 5% CO ₂ , > pH 6.8, dissolved oxygen (DO) 20%, with glucose addition

Figure 2. Growth and titer of CHO-MK cell line producing mAb (Trastuzumab) in shake flask and bioreactor. (A) CHO-MK cells were cultured in 125 mL baffled flask using AdaptPD CHO-MK Medium A and AdaptPD CHO-MK Feed 1. Titer was measured on Day 7, achieving 11.3 g/L with 89.4% viability and maximum VCD at 5.7 x 10⁷ cells/mL. Cell-specific productivity was 60.5 pg/cell/day (Day 0–7). (B) CHO-MK cells were cultured in a 2 L bioreactor (Biott, Japan) using AdaptPD CHO-MK Medium A and AdaptPD CHO-MK Feed 1. Titer was measured on Day 7, achieving 11.7 g/L with 81.2% viability and maximum VCD at 4.6 x 10⁷ cells/mL. Cell-specific productivity was 64.3 pg/cell/day (Day 0–7).

Achieve High Antibody Titer Through High Cell Density in Shorter Culture Time



Normal-seeding Density: 1.0×10^6 cells/mL



High-seeding Density: 4.0×10^6 cells/mL

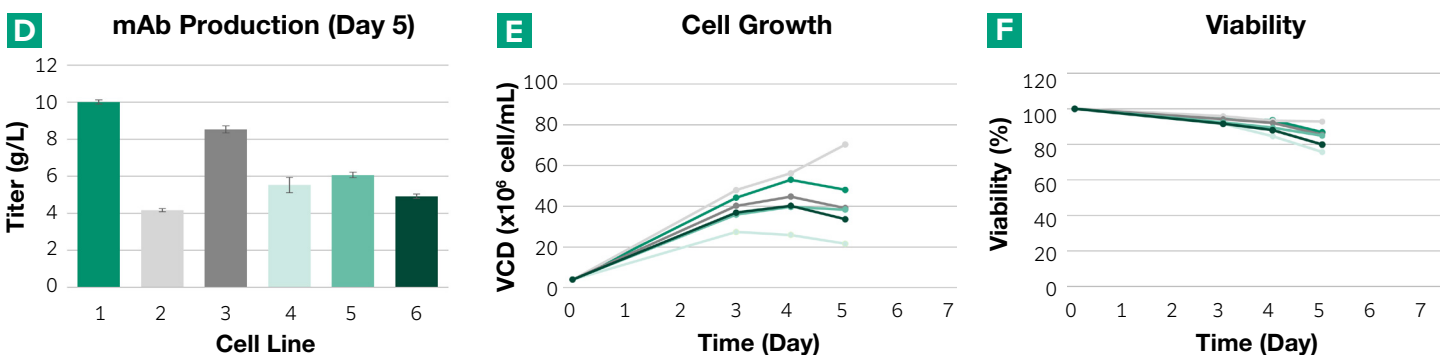


Figure 3. Growth and titer of CHO-MK cell lines producing 6 different antibodies under normal-seeding density (A–C) and high-seeding density (D–F). CHO-MK cell lines expressing various antibodies were cultured in Ambr system using AdaptPD CHO-MK Medium A and AdaptPD CHO-MK Feed 1. Antibody titers measured on Day 7 ranged from 5.1 g/L to 10.8 g/L using normal-seeding density of 1.0×10^6 cells/mL (A–C). Antibody titers measured on Day 5 ranged from 4.2 g/L to 10.0 g/L using high-seeding density of 4.0×10^6 cells/mL, where N-1 was performed in fed-batch culture (D–F). Product qualities were comparable to those obtained in the fed-batch culture with normal-seeding density (data not shown).

Improved Titer and Cell Density Compared to Competitor CHO Media

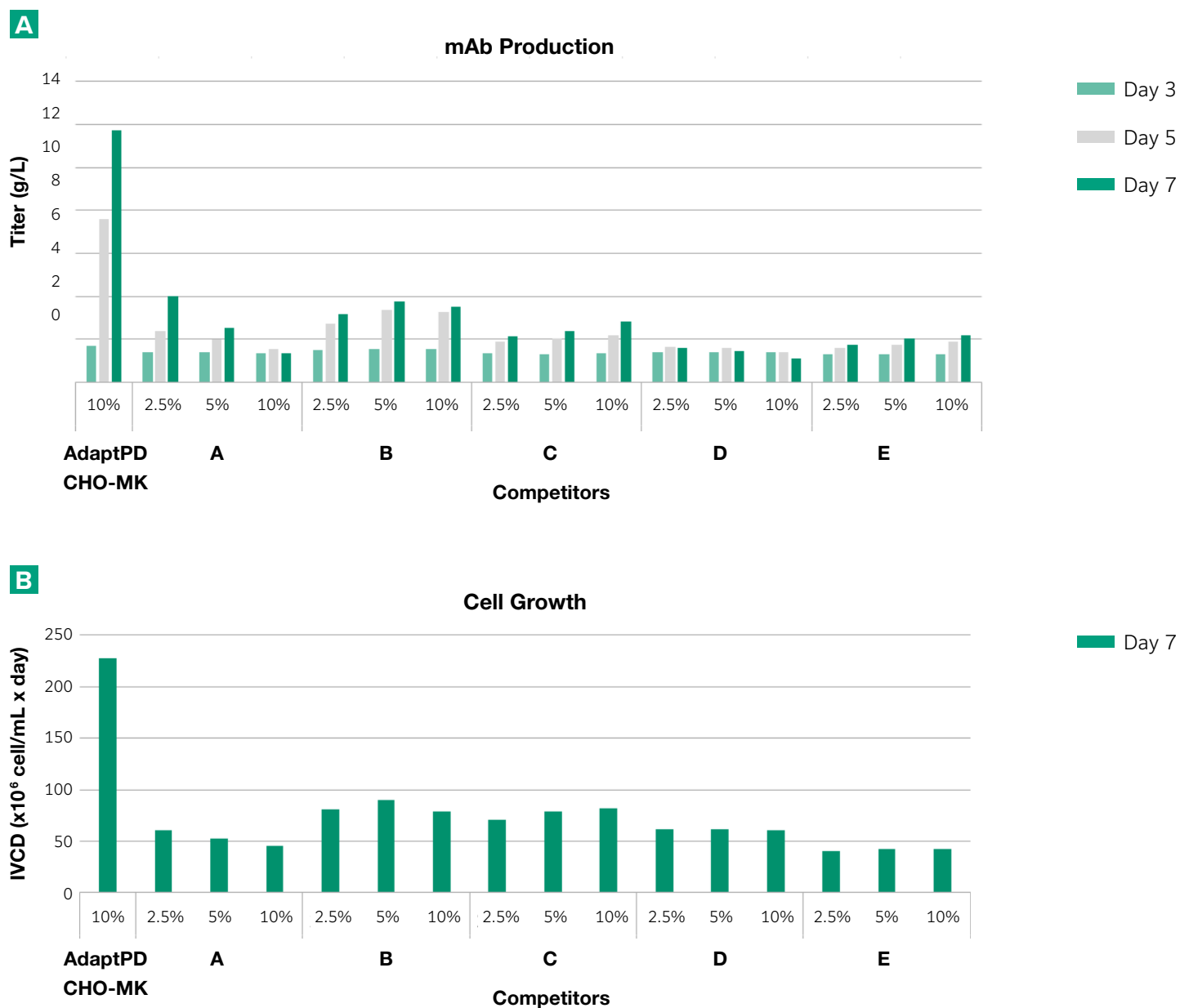


Figure 4. Growth and titer compared to competitor media. CHO-MK cell line producing mAb (Trastuzumab) were grown in 125 mL baffled flask using AdaptPD CHO-MK Medium A and AdaptPD CHO-MK Feed 1 or competitor CHO media and their corresponding feed media (**Competitors A-E**). Cultures were fed at specified feed volumes (%) daily from Day 3 to Day 7. Titer (**A**) and Integral of Viable Cell Density (IVCD) (**B**) were measured on Day 7, achieving titer of 11.7 g/L, and IVCD of 2.28×10^8 cell/mL x day.

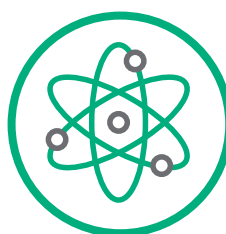
Advance Biologics Manufacturing with Innovative Partnership

To meet the growing demand of making biologics more accessible, the **CHITOSE Laboratory** and **FUJIFILM Biosciences** collaboration creates a complete solution to enhance manufacturing efficiencies at every stage of development.



FUJIFILM Biosciences

AdaptPD CHO-MK Platform Media



Chitose Laboratory

Cell Line Development Service Provider

Robust Cell Culture Platform

Generate remarkably productive cells for higher titers and increased quality of biologics, resulting from CHO-MK cells cultured in AdaptPD CHO-MK Platform Media.

Reduced Manufacturing Costs

Deliver consistent productivity in suspension cultures for cost-effective biomolecule drug development and accelerated commercialization

Faster to Market

Enhance workflow and process efficiencies for optimized mAb production in CHO-MK cells

For access to the CHO-MK cell culture platform, contact your local representative about getting started on developing your platform solution.





Global Supply Continuity for Bioproduction

AdaptPD CHO-MK Medium A and AdaptPD CHO-MK Feed 1 are manufactured following GMP using qualified raw materials to ensure continuity of supply and lot-to-lot reliability from our facilities all over the world.

- Stringent raw materials control and sourcing program
- Meets the highest global and regional quality standards
- Fulfills regulatory demands for each lot
- COA, COO, TSE/BSE statements
- ISO 13485, EN 13485:2016 certified
- Drug Master Files (DMF) supported*

* Available upon request

ORDERING INFORMATION

Product Description	Catalog #	Size*	Additional Information
AdaptPD CHO-MK Medium A (Powder)	982063	10 L	Chemically defined, animal component-free formula.
AdaptPD CHO-MK Feed 1 (Powder)	981811	1 L	Chemically defined, animal component-free formula.

*Custom sizes and packaging available upon request.



Enhance Speed and Performance in Your Bioprocesses

Accelerate your mAB therapies to market with AdaptPD CHO-MK Platform Media. To order or for inquires, contact us at getinfo@fujifilm.com or visit:

fujifilmbiosciences.fujifilm.com/adaptpd-cho-mk-medium-a-and-adaptpd-cho-mk-feed-1

Giving *life* to your next breakthrough

FUJIFILM Biosciences is dedicated to empowering you at every stage of discovery, development, and commercialization. By offering a diverse portfolio of life sciences products and services, we are primed to support your breakthroughs and accelerate the creation of life-changing treatments.

Through collaboration, expertise, and consistency, our purpose is being your *Partners for Life*.

References

- Masuda K, Kubota M, Nakazawa Y, et al. Establishment of a novel cell line, CHO-MK, derived from Chinese hamster ovary tissues for biologics manufacturing. *Journal of Bioscience and Bioengineering*. 2024;137(6):471-479. doi.org/10.1016/j.jbiosc.2024.02.005.
- Saeki H, Fueki K, Maeda N, et al. Enhancing monoclonal antibody production efficiency using CHO-MK cells and specific media in a conventional fed-batch culture. *Cytotechnology*. 2025;77:1. doi: 10.1007/s10616-024-00669-4.

Partners for *Life*

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