

Making the Medicines of Tomorrow

**Lonza**

Specialized Modalities

# CHO media portfolio

Maximize your protein  
expression with our  
CHO media



# Your production and workflow



## Streamline

Accelerate your media screening and optimization using our advanced, high-quality CHO media portfolio



## Achieve

Generate high cell yields with the desired quality through our optimized media, renowned for their superior performance



## Secure

Ensure your success with our globally harmonized, regulatory-compliant media manufacturing and distribution network

CHO GS,  
CHO K1 cell lines

**TheraPRO®  
Expansion Medium**



**TheraPRO®  
Production Medium and Feed**



Revival and subculture



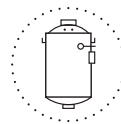
Transfection and cloning



Media screening



Fed-batch production



CHO DG44  
cell line



**PowerCHO® 2  
Medium**



**ProCHO® 5  
Medium**



**PowerCHO® 2  
Medium**



**ProCHO® 5  
Medium**

**Feeds: PowerFeed® A, Xtreme® Feed**

# Lonza manufacturing capabilities



## Walkersville, MD, USA

Since 1947 – (Whittaker BioProducts, then BioWhittaker, then Cambrex and now Lonza)

- 64,800 shipments a year
- Media Manufacturing (Powder and Liquid formats)
  - 10,000 L batches
  - 7,000 kg powder batches
- 13485:2012 certified – Updated 13485: 2016 (Per QA)
- Regulated site ISO 9001:2015 Certified / 13485:2016 Certified and 21 CFR 820 compliant
- Aseptic processing supported by process and cleaning validation
- Dry Powder Media manufacturing on various scales with suitable milling and blending processes

## Verviers, Belgium

In operation since 1994, production and distribution site

- 30,000 shipments a year
- Media Manufacturing (Powder and Liquid formats)
  - 10,000 L batches
  - 1,500 kg powder batches
- Regulated site ISO 9001:2015 Certified / 13485:2016 Certified and 21 CFR 820 compliant
- Aseptic processing supported by process and cleaning validation
- Dry Powder Media manufacturing on various scales with suitable milling and blending processes



# TheraPRO® CHO Media System

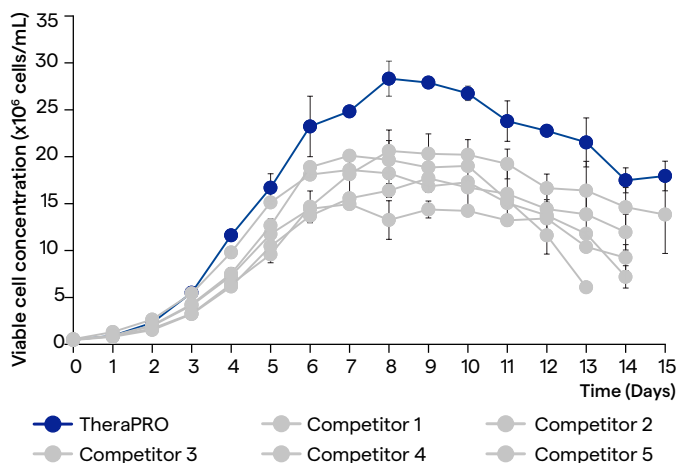
TheraPRO® is a chemically defined, serum-free, and non-animal origin media platform designed to support high-performance protein production in CHO-GS and CHO-K1 cell lines. It enables consistent performance from cell line development to commercial-scale manufacturing.

## TheraPRO® CHO Media System Components

- **Cloning Medium:** Supports efficient single cloning using FACS sorting or limiting dilution cloning
- **Expansion Medium:** Provides robust means for thawing, adaptation, and regular passaging of CHO cells, also supports single cell cloning using Beacon® Platform
- **Production Medium:** Drives high titers with consistent quality across CHO platforms
- **Feed:** Enhances productivity and maintains viability throughout the culture

## Key Advantages

- Seamless scalability from R&D to GMP
- High-density growth and protein yield
- Simplified media handling and preparation
- Consistent, NAO-compliant performance

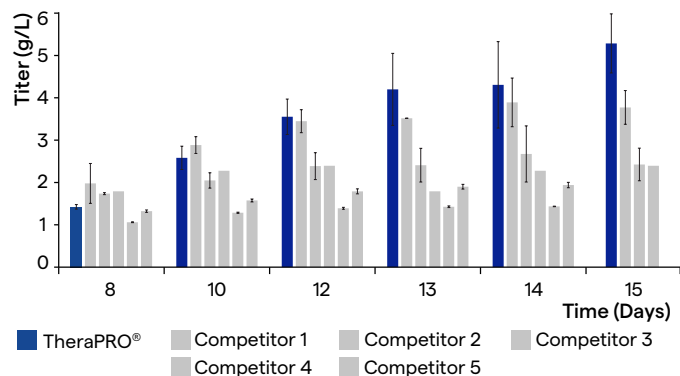


**Figure 1.** CHO-K1 cultures grown in the TheraPRO® CHO Media System routinely exceeded  $25 \times 10^6$  cells/mL with >90% viability over 15 days. This performance surpassed that of leading commercial media. The runs also yielded high mAb titers with strong product quality: <1% aggregation, >95% monomer, and >50% main charge isoform, highlighting TheraPRO®'s ability to support high-density, high-quality protein production.

Request your free sample today.

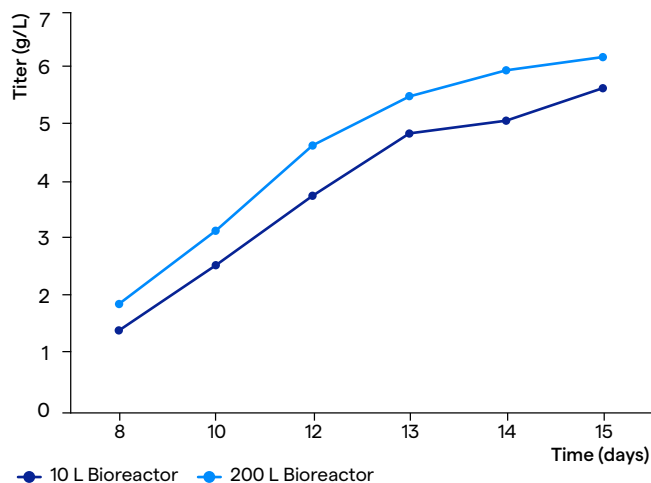


## TheraPRO® outperforms competitors in titer performance



**Figure 2.** Over a 15-day fed-batch run, the TheraPRO® CHO Media System consistently outperformed competing media, pushing titers above 5 g/L, while competitor formulations stalled below 2 g/L under identical conditions.

## TheraPRO®: Scalable, consistent CHO-K1 performance



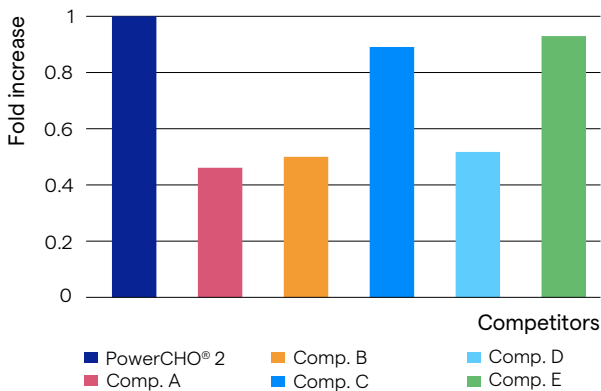
**Figure 3.** TheraPRO® CHO Media System delivers robust, high-yield results across bioreactor volumes from 10 L to 200 L, demonstrating scalable performance that reinforces Lanza's platform reliability and streamlines workflows at every production stage.



## PowerCHO® 2 Media System

The Lonza PowerCHO® 2 Media System, designed for the CHO-DG44 cell line, delivers a chemically-defined, high-performance solution that ensures consistent, high-quality recombinant protein production throughout all stages of biopharmaceutical development and manufacturing.

- Chemically-defined, Non-animal origin, serum-free
- Achieves high cell density and protein titer in CHO DG44 and other CHO cell lines in suspension
- Demonstrates scalability and consistency across various scales.



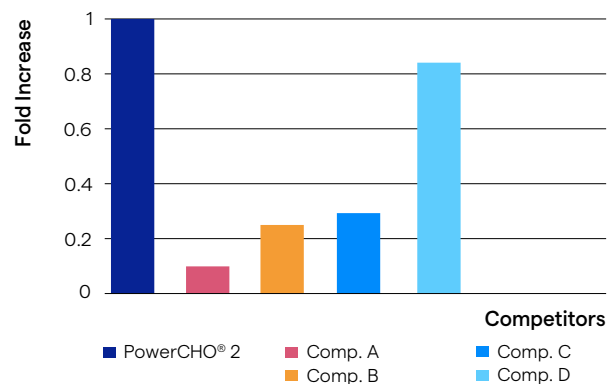
Request your free sample today.



## ProCHO® 5 Media System

The Lonza ProCHO® 5 Media System, the first-generation CHO media, offers a hydrolysate-containing, cost-effective solution ideal for biosimilar manufacturing, combining affordability, robustness, and proven performance for scalable production from lab to large-scale.

- First-generation media, Non-Chemically-defined, Non-animal origin, serum-free
- Achieves high titer, consistent product quality, and improved scalability in various CHO cell lines
- Simple formulation to support adaptation and growth in suspension culture



Request your free sample today.



# Portfolio ordering information

TheraPRO® Media			
Part code	Description	Size	Format
BESP1609Q	TheraPRO® CHO Cloning Medium	1 L	Liquid
BESP1630Q	TheraPRO® CHO Expansion Medium	1 L	Liquid
BESP1571B	TheraPRO® CHO Production Medium	5 L	Powder
BESP1603BX	TheraPRO® CHO Feed	5 L	Powder

PowerCHO® 2 Media			
Part code	Description	Size	Format
BELN12-771Q	PowerCHO® 2 CD, Serum-free CHO Medium with HEPES and Pluronic®, w/o L-Gln, PR, hypoxanthine and thymidine	1 L	Liquid
BE12-771P10	PowerCHO® 2 CD, w/o L-Gln and PR	10 L	Liquid
BE12-771P20	PowerCHO® 2 CD, w/o L-Gln and PR	20 L	Liquid
BE15-771ND	PowerCHO® 2 Powder Kit, CD, Serum-free CHO Medium with HEPES and Pluronic®, w/o L-Gln, PR, hypox-anthine and thymidine. Consists of basal powder, insulin, ferric citrate and PEG	10 L	Powder
BE15-771NF	PowerCHO® 2 Powder Kit	50 L	Powder
BE15-771NJ	PowerCHO® 2 Powder Kit	100 L	Powder

ProCHO® 5 Media			
Part code	Description	Size	Format
BELN12-766Q	ProCHO® 5 Protein-free CHO Medium with Pluronic®, w/o L-Gln, PR, hypoxanthine and thymidine	1 L	Liquid
BE12-766P10	STD ProCHO® 5 with Pluronic® w/o L-Gln, HT	10 L Bag	Liquid
BE12-766P20	STD ProCHO® 5 with Pluronic® w/o L-Gln, HT	20 L Bag	Liquid
BE15-766D	ProCHO® 5 Powder Kit, Protein-free CHO Medium with Pluronic®, w/o L-Gln, PR, hypoxanthine and thymidine. Contains basal powder, insulin and lipids	10 L	Powder
BE15-766F	ProCHO® 5 Powder Kit	50 L	Powder
BE15-766L	ProCHO® 5 Powder Kit	500 L	Powder

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[lonza.com/protein-production](https://lonza.com/protein-production)

Learn more.



Lonza's GS Gene Expression System® is a comprehensive toolbox for development of biologics including leading cell lines, vectors, technologies and expert process know-how.

For more information on how you can access Lonza's GS Gene Expression System®, visit [www.lonza.com/biologics/expression-technologies/gs-expression-system](https://www.lonza.com/biologics/expression-technologies/gs-expression-system) or contact us at [licensing@lonza.com](mailto:licensing@lonza.com).

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TheraPRO® / PowerCHO® / ProCHO® Media Systems are suitable for GMP manufacturing. These products are not for human or animal *in vivo* or diagnostic use, including use as a diluent or as an excipient. It is the end user's responsibility to ensure full compliance with applicable regulations based on their use of Lonza's products in their specific process. All TheraPRO® / PowerCHO® / ProCHO® products are produced according to applicable GMP standards. All trademarks belong to Lonza, registered in USA, EU or CH or to third party owners and used only for informational purposes. The information contained herein is believed to be correct and corresponds to the latest state of scientific and technical knowledge. However, no warranty is made, either expressed or implied, regarding its accuracy or the results to be obtained from the use of such information and no warranty is expressed or implied concerning the use of these products. The buyer assumes all risks of use and/or handling. Any user must make his own determination and satisfy himself that the products supplied by Lonza Group Ltd or its affiliates are (i) suitable for intended process or purpose, (ii) in compliance with environmental, health and safety regulations, and (iii) will not infringe any third party's intellectual property rights. The user bears the sole responsibility for determining the existence of any such third party rights, as well as obtaining any necessary licenses. For more details: [www.lonza.com/legal](https://www.lonza.com/legal).