

OptiVibro® CHO Serum-Free Perfusion Medium CP01

Chemically defined medium for high-density CHO perfusion culture

Animal-origin-free | Protein-free | Liquid and powder formats

Product overview

OptiVibro® CHO Serum-Free Perfusion Medium CP01 is a chemically defined, serum-free perfusion medium without animal-derived components. It is designed for N-1 and steady-state perfusion culture of CHO-K1, CHOZN, and CHO-S cell lines, supporting high cell density and protein expression.

Key features

- Animal-origin-free, protein-free, serum-free, and chemically defined.
- Supports N-1 and steady-state perfusion culture of CHO cells.
- Designed for high-density, high-viability growth and protein expression.
- Available in liquid and dry-powder formats for process development and scale-up.

Typical applications

N-1 perfusion, steady-state perfusion, concentrated fed-batch, intensified fed-batch, and hybrid CHO culture processes.

GENERAL CULTURE GUIDANCE For seed-cell expansion, use the original culture medium or 0.8× diluted CP01. For perfusion operation, establish cell-line-specific cell-density and volume-exchange targets during process development.

General product characteristics

Parameter	General characteristic
Classification	Chemically defined, serum-free, protein-free, animal-origin-free
Product type	CHO cell culture perfusion medium
Compatible cell lines	CHO-K1, CHOZN, CHO-S, and other suitable CHO cell lines
Form	Liquid or dry powder
Storage	2-8°C; protect from light. Store powder dark and dry.
Transport	Liquid: below 25°C; powder: below 10°C. Protect from light.
Shelf life	Liquid: 12 months. Powder: 24 months. See product label for expiry.

Note: General information is shown. Product label and lot-specific Certificate of Analysis govern release.

PRODUCT INFORMATION

Ordering, storage and use

Ordering information

Catalog No.	Product name	Size
CE000-N071	OptiVibro® CHO Serum-Free Perfusion Medium CP01	1,000 mL liquid
CE000-N072	OptiVibro® CHO Serum-Free Perfusion Medium CP01 (Powder)	1 L powder
CE000-N073	OptiVibro® CHO Serum-Free Perfusion Medium CP01 (Powder)	10 L powder
CE000-N074	OptiVibro® CHO Serum-Free Perfusion Medium CP01 (Powder)	50 L powder
CE000-N075	OptiVibro® CHO Serum-Free Perfusion Medium CP01 (Powder)	100 L powder

Catalog availability and pack sizes should be confirmed at the time of order.

Storage, transport and shelf life

Storage. Store at 2-8°C and protect from light. Store powder in a dark, dry environment.

Transportation. Liquid: maintain below 25°C; powder: maintain below 10°C. Protect from light during transport.

Shelf life. Liquid: 12 months; powder: 24 months when stored as directed. Confirm the labeled expiration date before use.

Powder reconstitution

1. Charge a clean vessel with 80% of the final volume of WFI or cell-culture-grade water.
2. Slowly add 29.48 g/L CP01 powder and mix for 30 minutes.
3. Add 2.2 g/L NaHCO₃ and mix for 10-15 minutes.
4. Adjust pH to 7.00-7.40, bring to final volume, and mix for 5 minutes.
5. Verify final pH (7.00-7.40) and osmolality (330-360 mOsm/kg).
6. Sterilize immediately through a 0.22 µm membrane filter. Store reconstituted medium at 2-8°C, protected from light, until use.

Note: The product label, current user manual, and lot-specific Certificate of Analysis govern release specifications.

Perfusion culture guidance

CP01 is intended for perfusion culture. Most stable CHO cell lines can be directly switched from their original culture medium to CP01 for perfusion culture. Confirm all operating parameters for the selected cell line and process.

Process stage	Medium / target	Starting point / action
Seed-cell culture	Original medium or 0.8× CP01	Use during initial subculture and expansion
Steady-state perfusion	Recommended density	50-70 × 10 ⁶ cells/mL; 0.5-3 VVD
N-1 perfusion	Recommended target density	50-70 × 10 ⁶ cells/mL

PROCESS DEVELOPMENT Concentrated fed-batch, intensified fed-batch, and hybrid perfusion processes may be evaluated according to cell-line and process requirements. Use the product manual and lot documentation as the operational reference.

INTENDED USE For research and manufacturing use only. Not intended for diagnostic or therapeutic use. This general datasheet does not replace the product label, user manual, Certificate of Analysis, or Safety Data Sheet.