

OptiVibro® CHO Serum-Free Basal Medium CE01

Chemically defined basal medium for high-density CHO cell culture

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

Product overview

OptiVibro® CHO Serum-Free Basal Medium CE01 is a chemically defined, serum-free basal medium designed for high-density culture of CHO-K1, CHO-DG44, and CHO-S cell lines. It supports high-viability growth and recombinant protein expression while avoiding animal-derived components.

Key features

- Animal-origin-free, protein-free, serum-free, and chemically defined.
- Designed for high-density, high-viability culture of CHO cells.
- Supports high-yield, high-quality recombinant protein production.
- Available in liquid and dry-powder formats for process development and scale-up.

Typical applications

Cell recovery, seed expansion, batch culture, and fed-batch production of monoclonal antibodies and recombinant proteins using suspension-adapted CHO cells.

GENERAL CULTURE GUIDANCE CE01 may be paired with OptiVibro® CHO Serum-Free Feed Medium CA01α and CA01β for fed-batch processes. Optimize the basal/feed combination and feeding approach for the selected cell line and target protein.

General product characteristics

Parameter	General characteristic
Classification	Chemically defined, serum-free, protein-free, animal-origin-free
Product type	CHO cell culture basal medium
Compatible cell lines	CHO-K1, CHO-DG44, 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-N031	OptiVibro® CHO Serum-Free Basal Medium CE01	500 mL liquid
CE000-N032	OptiVibro® CHO Serum-Free Basal Medium CE01	1,000 mL liquid
CE000-N033	OptiVibro® CHO Serum-Free Basal Medium CE01 (Powder)	1 L powder
CE000-N034	OptiVibro® CHO Serum-Free Basal Medium CE01 (Powder)	10 L powder
CE000-N035	OptiVibro® CHO Serum-Free Basal Medium CE01 (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 22.15 g/L CE01 powder and mix for 30 minutes.
3. Adjust to pH 8.5 with 5 N NaOH, then mix for 10 minutes.
4. Adjust to pH 7.0 with 6 N HCl, then mix for 5 minutes.
5. Add 2.317 g/L NaHCO₃ and mix for 10 minutes; bring to final volume and mix for 5 minutes.
6. Verify final pH (6.90-7.50) and osmolality (270-300 mOsm/kg).
7. 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.

Cell adaptation and culture guidance

Suggested culture conditions are 37°C, 80% relative humidity, 5% CO₂, and 120 rpm. Direct adaptation can be used for suitable CHO lines; use sequential adaptation when direct transfer does not achieve acceptable growth or viability.

Adaptation approach	Medium composition	Starting point / action
Direct adaptation	100% CE01	0.3-0.8 × 10 ⁶ viable cells/mL
Sequential adaptation	CE01:previous medium	50:50 → 75:25 → 90:10 → 95:5 → 100:0
At each sequential step	Minimum duration	At least 2 passages

CRYOPRESERVATION For a starting cryopreservation condition, harvest mid-log cells at >90% viability and use freshly prepared CE01 with 8% DMSO. The suggested cell density is 1.0-2.0 × 10⁷ viable cells/mL; use a controlled-rate freezing procedure.

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.