

OptiVibro® CHO Serum-Free Feed Medium CA02α

Chemically defined feed supplementation for high-density CHO fed-batch culture

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

Product overview

OptiVibro® CHO Serum-Free Feed Medium CA02α is a chemically defined, serum-free feed supplement designed for high-density fed-batch culture of CHO cell lines, including CHO-K1, CHOZN, CHO-DG44, and CHO-S. The formulation supports high viable cell density and viability while helping increase recombinant protein and monoclonal antibody yield.

Key features

- Animal-origin-free, protein-free, serum-free, and chemically defined.
- Formulated without growth factors, peptides, hydrolysates, or phenol red.
- Supports viable cell density and viability in CHO fed-batch culture.
- Compatible with a broad range of serum-free CHO basal media.

Typical applications

Fed-batch production of monoclonal antibodies and recombinant proteins using suspension-adapted CHO cell lines; process development, scale-up, and manufacturing workflows.

GENERAL CULTURE GUIDANCE For a starting process, use CA02α together with OptiVibro® CHO Serum-Free Feed Medium CA01β at 10% of the CA02α feed volume. Optimize the feeding method for the selected cell line and process.

General product characteristics

Parameter	General characteristic
Classification	Chemically defined, serum-free, protein-free, animal-origin-free
Product type	CHO cell culture feed supplement
Compatible cell lines	CHO-K1, CHOZN, CHO-DG44, CHO-S, and other suitable CHO cell lines
Form	Liquid or dry powder
Not formulated with	Growth factors, peptides, hydrolysates, or phenol red
Storage	2-8°C; protect from light. Store powder dark and dry.
Transport	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
CA000-N041	OptiVibro® CHO Serum-Free Feed Medium CA02α	100 mL liquid
CA000-N042	OptiVibro® CHO Serum-Free Feed Medium CA02α	1,000 mL liquid
CA000-N043	OptiVibro® CHO Serum-Free Feed Medium CA02α (Powder)	1 L powder
CA000-N044	OptiVibro® CHO Serum-Free Feed Medium CA02α (Powder)	10 L powder
CA000-N045	OptiVibro® CHO Serum-Free Feed Medium CA02α (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. Maintain below 10°C and 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 distilled water.
2. Slowly add 148.09 g/L CA02α powder and mix for 60 minutes.
3. Adjust to pH 6.90-7.10 using 10 N NaOH, then mix for 60 minutes.
4. Bring to final volume and mix for 10 minutes.
5. Verify final pH (6.80-7.50) and osmolality (225-265 mOsm/kg, measured after 5-fold dilution).
6. Sterilize immediately through a 0.22 µm membrane filter. Store reconstituted medium at 2-8°C, protected from light, until use.

Note: It is normal for the solution to appear cloudy before pH adjustment. The solution should clear after NaOH addition and adjustment to pH 6.90-7.10.

Starter fed-batch guidance

Use mid-log cells at $0.6-1.0 \times 10^6$ cells/mL and viability $\geq 95\%$. A small-scale starting condition is 37°C, 80% relative humidity, 5% CO₂, and 120 rpm in a 125 mL shake flask.

Culture day	CA02α (% initial volume)	CA01β (% initial volume)
Day 3	3.0%	0.3%
Day 5	5.0%	0.5%
Day 7	5.0%	0.5%
Day 9	5.0%	0.5%
Day 11	4.0%	0.4%

GLUCOSE MANAGEMENT When culture glucose falls below 2-4 g/L, supplement with 300 g/L glucose solution to 4-6 g/L. For high-glucose-consuming cell lines, a daily target of 6-8 g/L after day 5 may be appropriate.

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.