

ExCell Bio

OptiViro[®] CHO Serum-free Feed Medium CA02 α

For Research and Manufacturing Use

Not Intended for Diagnostic and Therapeutic Use

User Manual

Catalog Number	CA000-N041
	CA000-N042
	CA000-N043
	CA000-N044
	CA000-N045



| PRODUCT DESCRIPTION

OptiViro® CHO Serum-free Feed Medium CA02 α is a state-of-the-art, animal-free and chemically-defined medium that is specifically designed for the high-density culture of CHO-K1, CHOZN, CHO-DG44 and CHO-S etc. It is an ideal medium for achieving high-level expression of recombinant proteins, while eliminating concerns over potential contamination from animal-derived components.

To achieve the best results, it should be used in combination with OptiViro® CHO Serum-free Feed Medium CA01 β (Catalog no.: CA000-N021). This combination has been shown to increase the yield of monoclonal antibodies and other proteins in CHO fed-batch culture processes.

| SPECIFICATION, STORAGE AND TRANSPORTATION

REQUIREMENT

Product Name	Cat. #	Specification	Storage	Transportation	Shelf Life
OptiViro® CHO Serum-free Feed Medium CA02 α	CA000-N041	100mL Liquid	2-8°C Protect From Light.	< 10°C Protect From Light.	12 months
	CA000-N042	1000mL Liquid			
OptiViro® CHO Serum-free Feed Medium CA02 α (Powder)	CA000-N043	1 L powder	2-8°C Dark and dry.	< 10°C Protect From Light.	24 months
	CA000-N044	10 L powder			
	CA000-N045	100 L powder			

| HANDLING RECOMMENDATIONS

1. Please make sure to store the cell culture medium in a light-protected environment, avoid fluorescent lamps or other lamplight exposure, and better to use colored packaging bags in the refrigerator or warehouse.
2. During the transportation of the product, it should be kept away from light. This is to prevent the product from being affected by the irradiation of fluorescent lamps or other light sources, which may lead to discoloration.
3. During the transportation of the product to the clean area, it is essential to carry out a cleaning process. The cleaning method may involve disinfectant wiping, and not utilize UV irradiation.

Note: When passing through transfer windows equipped with UV lamp, remember to proactively turn off the UV lamp inside the transfer window.

| INSTRUCTION FOR USE

Medium preparation

1. Measure 80% of the final volume WFI or distilled water in a clean vessel.
2. Slowly add 148.09g/L OptiVibro® CHO Serum-free Feed Medium CA02α powder to the water, mix for 60 minutes.
3. Adjust the pH to 6.90-7.10 with 10N NaOH and mix for 60 minutes.
4. QS to final production volume and mix for 10 minutes.
5. Measure and record the final pH and osmolality. pH should be 6.80 to 7.50. Osmolality should be 225 to 265 mOsm/kg (dilute 5 times).
6. Sterilize immediately by 0.22μm membrane filtration. Store the reconstituted medium protected from light at 2°C to 8°C until use.

Note: It is normal for the solution to remain cloudy before adding the NaOH solution to adjust the pH. It should become clear once the NaOH solution is added and the pH is adjusted to between 6.90 and 7.10.

Here are some general guidelines to get started:

To achieve optimal results, OptiVibro® CHO Serum-free Feed Medium CA02α should be used in combination with OptiVibro® CHO Serum-free Feed Medium CA01β (CA000-N021), with the recommended amount of CA01β being 10% of CA02α. Please note that different CHO cell lines have varying metabolic rates and nutrient requirements, so it is recommended to optimize the feeding method according to the specific needs of your cell line.

1. Use cells in mid-log phase of growth with a seeding density of $0.6-1.0 \times 10^6$ cells/mL and viability $\geq 95\%$.
2. Cultivate the cells in a 125 mL flask at 37°C with 80% relative humidity, 5% CO₂, and shaking at 120 rpm.
3. For feeding, OptiVibro® CHO Serum-free Feed Medium CA02α (at concentrations of 3%, 5%, 5%, 5%, and 4%) and OptiVibro® CHO Serum-free Feed Medium CA01β (at concentrations of 0.3%, 0.5%, 0.5%, 0.5%, and 0.4% of initial culture volume) should be added on the 3rd, 5th, 7th, 9th, and 11th days of cell culture.
4. When the glucose concentration in the culture drops below 2-4g/L, supplement with 300g/L glucose solution to achieve a concentration of 4-6g/L. For cell lines with high glucose consumption, supplement glucose to 6-8g/L daily after the 5th day of culture.

| DISCLAIMER

1. Use the product according to the manual instructions. Deviations from these instructions are at the user's risk, and our company will not be responsible for any resulting product performance deviations.
2. This product is for scientific research and commercial production only and is not intended for clinical diagnosis or treatment. Users assume all risks for unauthorized use, and our company shall not be responsible for any consequences.