EIV12024E

ExCell Bio

OptiVitro® CHO Serum-free Feed Medium CA02α

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

OptiVitro® CHO Serum-free Feed Medium CA02α 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, 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 OptiVitro® CHO Serum-free Feed Medium CA01β (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
OptiVitro® CHO Serum-free Feed Medium CA02α	CA000-N041	100mL Liquid	2-8℃ Protect From Light	< 10℃ Protect From Light	12 months
	CA000-N042	1000mL Liquid			
	CA000-N043	1 L powder	2-8℃ Dark and dry	< 10℃ Protect From Light	24 months
	CA000-N044	10 L powder			
	CA000-N045	100 L powder			

PERFORMANCE, APPLICATION AND RESTRICTION

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 products, try to avoid the impact of fluorescent lamps or other lamplight exposure on the appearance of the product, resulting in appearance discoloration.

3. During the transportation of the product to the clean area, it is essential to carry out a cleaning and

sterilization process. The sterilization method may involve disinfectant wiping, and not utilize UV irradiation for sterilization.

【Note】 When passing through transfer windows equipped with UV sterilization, remember to proactively switch off the UV lamp inside the transfer window.

INSTRUCTION FOR USE

Medium preparation

Instructions for preparing 1L of OptiVitro® CHO Serum-free Feed Medium CA02α:

1. Measure 80% of the final volume WFI or distilled water in a clean vessel.
2. Add 148.09 g/L OptiVitro® Serum-free Feed Medium CA02α powder slowly to the water, mix for 60 minutes.
3. Adjust the pH to 6.90-7.10 with 5 N NaOH. After adjusting, continue stirring for an additional 60 minutes.
4. QS to final production volume and mix for 10 minutes.
5. Measure the final pH (6.80~7.50).
6. Measure the osmolality (225-265 mOsm/kg,dilute 5 times the measured value).
7. Sterilize immediately by membrane filtration (< 0.22 microns), and store at 2 to 8°C in the dark .

【Note】

1. 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 6.9 and 7.0.
2. To achieve optimal results, OptiVitro® CHO Serum-free Feed Medium CA02α should be used in combination with OptiVitro® CHO Serum-free Feed Medium CA01β (CA000-N021), with the recommended amount of CA01β being 5-10% 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.

Here are some general guidelines to get started:

1. Use cells in mid-log phase of growth with a seeding density of 0.6-1.0×10^6 cells/mL and viability ≥ 95%.

2. Cultivate the cells in a 125 mL flask at 37℃ with 80% relative humidity, 5% CO2, and shaking at 120-150rpm.

3. For feeding, OptiVitro® CHO Serum-free Feed Medium CA02α (at concentrations of 3%, 4%, 5%, 5%, and 5%) and OptiVitro® CHO Serum-free Feed Medium CA01β (at concentrations of 0.3%, 0.4%, 0.5%, 0.5%, and 0.5% 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. The product should be used according to the instructions in the manual. If the experimenter fails to operate according to the instructions, our company will not be responsible for any deviation in product performance caused by this.

2. The product is only used for scientific research and commercial production, and is not suitable for clinical diagnosis and treatment. Otherwise, all consequences arising shall be borne by the experimenter, and our company shall not be responsible.