ExCell

EIV32025E

ExCell Bio

OptiVitro® CHO Serum-free Feed Medium CA01β

For Research and Manufacturing Use

Not Intended for Diagnostic and Therapeutic Use

User Manual

Catalog Number	CA000-C021
	CA000-C022
	CA000-N021
	CA000-N022
	CA000-N023
	CA000-N024

PRODUCT DESCRIPTION

OptiVitro® CHO Serum-free Feed Medium CA01β 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. It should be used in combination with Main Feed from our company.

SPECIFICATION, STORAGE AND TRANSPORTATION REQUIREMENT

Product Name	Cat.#	Specification	Storage	Transportation	Shelf Life
OptiVitro® CHO Serum-free Feed Medium CA01β	CA000-C021	10 mL Liquid	2-8°C Protect From Light.	< 10°C Protect From Light.	12 months
	CA000-C022	500 mL Liquid			
OptiVitro® CHO Serum-free Feed Medium CA01β(Powder)	CA000-N021	0.5 L powder	2-8°C Dark and dry.	< 10°C Protect From Light.	24 months
	CA000-N022	1 L Powder			
	CA000-N023	5L Powder			
	CA000-N024	10L 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.*

Medium preparation

1. Measure 80% of the final volume WFI or distilled water in a clean vessel.
2. Slowly add 108.71g/L OptiVitro® CHO Serum-free Feed Medium CA01β powder to the water, mix for 60 minutes.
3. Adjust the pH to 10.90-11.30 with 10N NaOH (or solid 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 10.80 to 11.40. Osmolality should be 300 to 370 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: *To prevent excessive heat release during NaOH addition, it's important to add NaOH or solid NaOH slowly, in multiple increments. Before adding the NaOH solution to adjust the pH, it's normal for the solution to appear cloudy. However, the final medium should be clear once the NaOH solution has been added and the pH has been adjusted.*

Here are some general guidelines to get started:

To achieve optimal results, OptiVitro® CHO Serum-free Feed Medium CA01β should be used in combination with Main Feed from our company, and the recommended amount of CA01β being 10% of Main Feed. 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.

Suggestions for medium pairing and combination:

	Basal Media	Main Feed	Supplement
1	OptiVitro® CHO Serum-Free Basal Media CE01	OptiVitro® CHO Serum-Free Feed Media CA01α	OptiVitro® CHO Serum-Free Feed Media CA01β
2	OptiVitro® CHO Serum-Free Basal Media CE02	OptiVitro® CHO Serum-Free Feed Media CA02α	OptiVitro® CHO Serum-Free Feed Media CA01β
3	OptiVitro® CHO Serum-Free Basal Media CE03	OptiVitro® CHO Serum-Free Feed Media CA03α	OptiVitro® CHO Serum-Free Feed Media CA01β

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% CO_2, and shaking at 120 rpm.
3. For feeding, Main Feed (at concentrations of 3%, 5%, 5%, 5%, and 4%) and OptiVitro® 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.