

# ExCell Bio

## OptiVibro<sup>®</sup> 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

OptiVibro® CHO Serum-free Feed Medium CA01β is a dry powdered cell culture feed supplement that is specifically designed to improve the performance of fed-batch processes for Chinese hamster ovary (CHO) cell lines. It is a chemically defined (CD), animal-derived component-free (ADCF) product that does not contain any growth factors, peptides, hydrolysates, phenol red. This makes it a safe and reliable supplement for bioprocessing.

To achieve the best results, it should be used in combination with OptiVibro® CHO Serum-free Feed Medium CA01α (Catalog no.: CA000-N011). 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
OptiVibro® CHO Serum-free Feed Medium CA01β	CA000-C021	10mL Liquid	2-8°C Protect From Light	< 10°C Protect From Light	12 months
	CA000-C022	500mL Liquid			
	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			

## | 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 OptiVibro<sup>®</sup> CHO Serum-free Feed Medium CA01β:

1. Measure 80% of the final volume WFI or distilled water in a clean vessel.
2. Slowly add 108.71g CHO Serum-free Feed Medium CA01β powder to the water, mix for 60 minutes.
3. Adjust the pH to 10.9-11.3 with 10N NaOH or solid NaOH and mix for 60 minutes.
4. Adjust the pH to 10.8 -11.4 while stirring for an additional 10 minutes.
5. QS to 1L and continue stirring for another 10 minutes.
6. Measure and record the final pH and osmolality.
7. Sterilize immediately by membrane filtration (< 0.22 microns).

### **【Note】**

To prevent excessive heat release during NaOH addition, it's important to add 10N 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:**

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% CO<sub>2</sub>, and shaking at 120-150rpm.

3. For feeding, OptiVibro® CHO Serum-free Feed Medium CA01 $\alpha$  (at concentrations of 3%, 4%, 5%, 5%, and 5%) and OptiVibro® CHO Serum-free Feed Medium CA01 $\beta$  (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.