Celer-F001aS 293 Serum-free Feed Medium

Product Name: Celer-F001aS

User Manual

Contents

Description

Celer-F001aS 293 feed is a proprietary, protein-free, and animal component-free cell culture medium independently developed, formulated, and manufactured by Shanghai BioEngine Sci-Tech Co., Ltd. It is suitable for fed-batch of human embryonic kidney cells 293 (Human Embryonic Kidney 293 Cells, HEK293). When used in conjunction with the Celer series of feed media (refer to "Related Products"), it can support high-density cell growth and maintenance, achieve higher levels of product expression and quality.

Application

This product is intended for research or further manufacturing in the bio-manufacturing industry, but not for human or therapeutic use.

Composition

The IP rights of Celer-F001aS basal medium formulation are owned by Shanghai BioEngine Sci-Tech Co., Ltd.

This medium contains:

☑ Carbohydrates, amino acids, vitamins, bulk salts.

☑ 90 g/L D-glucose，1. g/L P188.

Not contain:

☒ glutamine, cytokines, antibiotics, HEPES and phenol red.

☒ Raw materials from animal sources.

Storage

- Store medium at 2-8℃, away from light.
- Once opened, the powder medium should be stored protected from moisture in a tightly sealed container.
- Do not use it after the expiration date or being damped.

Reconstitution of Powder Medium

Table 1 shows the preparation of Celer-F001aS medium [1].

Ingredients	Concentration
Celer-F001aS medium powder	243.53 g/L [2]

Table 1. Preparation of Celer-F001aS medium

1) Weigh 80% water of the final volume into the preparation container using pure water, ultrapure water, or water for injection at 20-30 ℃. Mix thoroughly without creating air bubbles.

2) Accurately weigh the corresponding mass of Celer-F001aS basal medium at a concentration of 243.53 g/L and add it into the preparation container of step 1). Stir well for 30-40 minutes.

3) Slowly adjust the pH to 6.8-7.2 with 10 mol/L sodium hydroxide solution. Stir for 20-30 minutes. At this point, the solution should be clear.

4) Dilute to final production volume with pure water, ultrapure water, or water for injection. Mix for 10-15 min.

5) Pass the medium solution through a pore size of 0.22 or 0.2 μm sterile filter membrane, such as PES, using a pulse pump or compressed air (3-15 psi).

6) Use the prepared medium liquid immediately or store it in glass bottles, PET storage bottles, or disposable storage bags with an oxygen barrier membrane in a dark environment of 2~8 ℃. It's recommended for use within one month.

Note:

[1] The above parameters (such as stirring time) are set for small-scale liquid preparation. Adjust these parameters for large-scale preparation based on container capacity to ensure full dissolution of dry powder.

[2] The "g/L" unit denotes volumetric concentration (solute mass/solution volume).

Specifications of final liquid medium

Test	Unit	Specification
pH		6.8 – 7.2 [3]
Osmolality	mOsm/kg	1900 – 2500
Turbidity	NTU	< 8.00

Table 2. Specifications of final liquid medium

Note:

[3] The pH buffer system of the product is carbon dioxide-sodium bicarbonate. The final pH value should be strictly controlled within the specific range outlined in Table 2. The following operations, such as prolonged reconstitution time or aeration in the bioreactor without pH control, can result in a gradual pH increase. There is a risk of metal ion precipitation when the pH value exceeds the upper limit.

Fed-batch Culture

1) The fed-batch culture combined with Celer series basal media.
2) 24 h after transient transfection, add 5% Celer-F001aS, 0.5% Celer-F001bS, and 1% enhancer to cell suspension, culture was continued until harvest.
3) When performing the fed-batch culture of stable expressed 293 cells, supplemented with 3% Celer-F001aS and 0.3% Celer-F001bS every other day from day3. Residual glucose is not less than 2 g/L, maintain glucose concentration above 6 g/L.

Related Product

Product	Cat. No.	Form	Size	Packaging	Notes
Celer-S001 HEK293 Serum-free Medium	EXP0104003	Liquid	1 L	Bottle	● SF, PF, ADCF ● Supports adenovirus amplification
Celer-S001S HEK293 Serum-free Medium	EXP0108401	Powder	200 L	Bag	
	EXP0108402	Powder	100 L	Bag	
	EXP0108403	Powder	10 L	Bag	
Celer-S201 293 Serum-free Medium	EXP0103001	Liquid	1 L	Bottle	● SF, PF, ADCF, CD ● Supports protein expression
Celer-S201S 293 Serum-free Medium	EXP0103002	Powder	10 L	Bag	
	EXP0103003	Powder	100 L	Bag	
	EXP0103004	Powder	200 L	Bag	
Celer-F001aS 293 Serum-free Feed Medium	EXP0117301	Powder	10 L	Bag	● SF, PF, ADCF ● To be used with Celer-S201S in fed-batch culture
	EXP0117302	Powder	1 L	Bag	
	EXP0117303	Powder	20 L	Bag	
Celer-F001bS 293 Serum-free Feed Medium	EXP0117401	Powder	10 L	Bag	
	EXP0117402	Powder	1 L	Bag	

Scan the QR code for more product information.

Stay tuned for more updates.

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