Hyber-F100S Hybridoma Cell Feed Medium

Product Name: Hyber-F100S

User Manual

Contents

Description

Hyber-F100S is a protein-free and animal-free feed medium specifically designed for fed-batch process of hybridoma cells. The medium enables the excellent growth performance of hybridoma cells and the high-level expression of antibodies, in conjunction with hybridoma cell serum-free medium (Refer to the "Related Product" section).

Application

Hyber-F100S feed medium is suitable for fed-batch culture with hybridoma cells.

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 Hyber-F100S feed medium formulation are owned by Shanghai BioEngine Sci-Tech Co., Ltd.

This medium contains:

☑ Carbohydrates, amino acids, vitamins, bulk salts, and trace elements.

☑ 28 g/L D-glucose，2 g/L P188, 40 mM glutamine.

Not contain:

☒ Cytokines, antibiotics, HEPES and phenol red.

☒ Raw materials from animal sources.

Storage

- Store medium at 2-8˚C, 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 Hyber-F100S medium [1].

Ingredients	Concentration
Hyber-F100S medium powder	123.18 g/L [2]
Sodium hydroxide	1.90 g/L
L-tyrosine	1.00 g/L

Table 1. Preparation of Hyber-F100S medium

1) Weigh 20% water of the final volume into the preparation container using pure water, ultrapure water, or water for injection at 20-30˚C. Mix thoroughly (Power per Volume (P/V)>10 W/m^3) without creating air bubbles.

2) Accurately weigh 1.90 g/L of sodium hydroxide and add it into the preparation container of 1) step. Stir for 5-10 minutes.

3) Weigh 1.00 g/L of L-tyrosine and add it into the preparation container of 1) step. Stir well for 5-10 minutes.

4) Weigh 80% water of the final volume into the preparation container of 1) step using pure water, ultrapure water, or water for injection.

5) Accurately weigh 123.18 g/L of Hyber-F100S medium powder into the preparation container. Stir well for 20-30 minutes.

6) Adjust to pH 5.4-5.5 with 5 mL/L (recommended) concentrated hydrochloric acid solution. Stir for 20-25 minutes. At this point, the solution should be clear.

7) Slowly adjust to pH 6.0-6.3 with 5-10 mol/L sodium hydroxide solution. Stir for 10-15 minutes.

8) 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).

9) 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°C. It's recommended for use within 1 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		6.0 – 6.3 [3]
Osmolality	mOsm/kg	600 – 1000
Turbidity	NTU	< 4.00

Table 2. Specifications of final liquid medium

Fed-batch culture

1) The hybridoma cells should be adapted in hybridoma cell serum-free medium at least two passages.

2) Ensure that the cell viability is >90%, and the growth rate is in mid-logarithmic phase prior to inoculation.

3) Calculate the volume of cell culture and medium necessary to seed at 1.0-1.5×10^6 viable cells/mL in a shake flask.

4) Incubate at 37°C in a humidified atmosphere of 5% CO_2 in air on an orbital shaker platform rotating at 110-130 rpm (110 rpm for 50 mm amplitude; 130 rpm for 10 mm amplitude).

5) The day of inoculation was recorded as day 0 (D0). Follow the suggested feed strategy as outlined in Table 3.

6) Harvest the cells on day 7 or when viability falls below 50%.

Feed Medium	D1	D2	D3	D4	D5	D6	D7
Hyber-F100S Feed medium （%，v/v）	3	3	3	3	3	3	/

Table 3. Recommended feed strategy

Related Product

Product Name	Cat. No.	Form	Size	Packaging	Note
Hyber-B100S Hybridoma Cell Serum-free Medium	EXP0111202	Powder	10 L	Bag	● SF, PF, ADCF ● Suitable for high-density hybridoma cell suspension cultures and supports high protein expression ● The additive is added to powder medium at a ratio of 1:1000
	EXP0111205	Powder	200 L	Barrel	
Hyber-B100S Additive	EXP0120901	Liquid	100 mL	Bottle	
	EXP0120902	Liquid	50 mL	Bottle	
Hyber-F100S Hybridoma Cell Feed Medium	EXP0111302	Powder	2 L	Bag	● SF, PF, ADCF ● Used with Hyber-B100S in fed-batch culture
	EXP0111303	Powder	30 L	Barrel	

Scan the QR code for more product information.

Stay tuned for more updates.

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