Product Instruction

Vigor-S100S Insect Cell Serum-free Medium

Product Type: Vigor-S100S

Product Description

Vigor-S100S insect cell serum-free medium is a serum-free medium with independent intellectual property rights, developed by Shanghai BioEngine Sci-Tech Co., Ltd. This medium is developed according to the characteristics of growth and metabolism of insect cells such as Sf9, High Five, etc. The medium supports the rapid habituation of adherent insect cells such as Sf9, High Five, etc. and is suitable for suspension culture. What's more, it supports the rapid proliferation and high-density culture of suspended insect cells such as Sf9, High Five, etc. In addition, it also supports the baculovirus expression vector systems to produce recombinant gene proteins.

Product Formula

The intellectual property rights of Vigor-S100S insect cell serum-free medium formula are owned by Shanghai BioEngine Sci-Tech Co., Ltd. For additional information, please contact our technical support department.

Product Ingredient

The medium is a completely serum-free, and no serum or plasma needs to be added.

This product does not contain genetically modified plant origin or raw materials with mad cow virus origin.

This product does not contain any hormones, antibiotics or preservatives.

Product Preservation

- Store in a dark environment at 2-8℃.
- This product is vulnerable to water damage. Please use immediately after opening. If it needs to be stored, please sealed by heat sealing and sealing clips, avoiding damp and being ineffective.
- Do not recommend to use, when the product is beyond expiration date.

Instruction for the preparation of Vigor-S100S medium

Do the preparation of Vigor-S100S medium as per the one Table 1 shows

Component	Concentration
Dry powder of Vigor-S100S	41.60 g/L
$NaHCO_3$	350 mg/L
Additive of Vigor-S100S	1 ml/L

Table 1 Formula table of Vigor-S100S medium

(1) Weigh 100% water of the final medium preparation volume into the medium preparation container. Purified water or water for injection and above standard water should be used in preparation, and the water temperature should be controlled at 20-30℃. Turn on the mixing system of the medium preparation container, stir thoroughly, and avoid the generation of air bubbles during stirring.

(2) Accurately weigh 41.60 g/L of dry powder of Vigor-S100S, add them into the preparation container near the liquid surface or use special equipment such as homogenizer, and stir thoroughly for 20-30 min until it becomes clear.

(3) Accurately weigh 350 mg/L sodium bicarbonate powder, and add them into the preparation container near the liquid level or use special equipment such as homogenizer. In addition, add 1 ml/L Vigor-S100S additive, and stir thoroughly for 13-17 min.

(4) Use 10 mol/L sodium hydroxide solution to adjust the pH value of the medium to 6.0-6.2. (The addition amount of 10 mol/L sodium hydroxide is about 2 ml/L).

(5) Sterile filter the medium solution through a sterile filter membrane with 0.22 μm pore size.

(6) PS: The filter capacity of the single-layer membrane filter cup is small (about 1-2L). It is recommended to use a cartridge filter with a larger membrane area for filtration, if a large amount of liquid is about to be prepared.

(7) The prepared medium liquid should be stored in a dark environment at 2-8° C, and the expiration date is one month.

(8) The reference parameters of product

Indicator	Reference Standard
Product initial pH	3.50-4.50
Osmolality	370-420 mOsm/Kg
Product turbidity	≤4.00NTU

Notes:

(1) The above units of "g/L" are volume concentration (solute weight/solution volume).

(2) The above preparation parameters (such as stirring time, etc.) are for the reference of small-scale preparation in research and development. When in production, please set appropriate preparation parameters according to the stirring capacity of the preparation vessel.

(3) The product belongs to carbon dioxide buffer system. The product final pH value may rise when vigorous stirring or long-time stirring, which is a normal phenomenon and does not affect the use of the product.

Medium usage

Subculture

- Sf9 or High Five cells that have been suspended in other serum-free medium can be directly replaced with Vigor-S100S medium.
- The seeding density should be controlled at 0.8-1.2 × 10^6 cells/ml during serum-free suspension subculture, and subculture should be carried out every 48 hours.
- Use the shake flask and place it in a 27°C environment. The recommended shaker speed is 110-130 rpm.

Cryopreservation

Select the cells that are in good condition in the logarithmic growth phase for cryopreservation. The cryopreservation density is 2.5-3.5×10^7 cells/ml/tube. The ratio of cryopreservation solution is 45% fresh medium + 45% culture supernatant + 10% DMSO. Centrifuge 190 g cells for 5 min, discard the supernatant, resuspend the mixed freezing solution, and dispense the cells into freezing tube, 1 ml/vial. Then, place them in a programmed cooling box at - 80℃ overnight, and transfer to liquid nitrogen save

Recovery

Rotate the freezing tubes in the same direction in a 37°C water bath to quickly melt the cryopreservation solution, and take them out to a clean bench when only small ice crystals remain. Add 10 ml of medium and 190g cell to the centrifuge tube, centrifuge for 5 min, and wash away the DMSO. Use 20-30 ml of medium to resuspend the cells, and control the seeding density at 0.8-1.2×10^6 cells/ml.