DMEM (High glucose), powder, without phenol red

Cat. No. : PM150223P

Size: 100L

General Information

Product Form	Powder
D-Glucose	4500 mg/L
Concentration	13.9 g/L
HEPES	Negative
L-Glutamine	4 mM
$NaHCO_3$	Negative
Phenol red	Negative
Sodium pyruvate	1 mM
Storage	2-8℃, Shading Light
Shipping	Room Temperature
Expiration date	36 months

Background

DMEM (Dulbecco's Modified Eagle Medium) was developed on the basis of MEM medium. Compared with MEM medium, the content of amino acid increased by 2 times, the content of vitamin increased by 4 times, and the content of non-essential amino acid, trace iron ion and sodium pyruvate were increased by 4 times. The glucose content of DMEM medium was originally designed as 1000 mg/L (low Glucose type), and then developed into 4500 mg/L (high Glucose type), which has been widely used in cell culture.

DMEM (High glucose) was widely used in fast growth, low adhesion cells, hybridoma myeloma cells, clone cells, DNA transfected transformation cells, various primary virus host cells, single cell culture and vaccine production.

DMEM (High glucose) contains many kinds of amino acids, vitamins, inorganic salts and other ingredients for cell culture, but does not contain protein, lipids or any growth factors, so the product should be used with serum or serum-free additives.

Preparation method

1. The preparation water should be purified water, ultra-pure water or water for injection (WFI), and the water temperature should be controlled between 20-30℃ during the preparation process.
2. Measure 90% of the final volume preparation water to the solution preparation system. Start stirring, and avoid generating bubbles. For example, if 1 L is required, add 900 mL of preparation water here. And it's recommended that the power output per unit volume (P/V) of the mixing system is greater than 10 W/m^3.
3. Weigh the appropriate amount of powder according to the concentration of 13.9 g/L accurately , and add it to the container prepared in step 2. Stir for more than 20 minutes dissolve all powder completely.
4. After the solution is clear, add $NaHCO_3$ at a concentration of 3.7 g/L, continue stirring for 5-10 minutes until

dissolved, then add ultra pure water to adjust the volume to the 100% of required.

5. If necessary, adjust the pH to 7.20-7.30 with 1 mol/L NaOH solution or 1 mol/L HCl solution. Since filtration will slightly increase the pH, the pH value here is lower than the target pH value (7.20-7.40).
6. The prepared solution should be sterilized using a 0.2 μm pore size filter membrane under positive pressure (ensure aseptic technique).
7. After filtration,a small amount of liquid culture medium can betaken for quality inspection, and use only after passing the test.
8. The filtered liquid medium should be used immediately or stored in glass bottles, culture medium bottles (PET), or single-use storage bags with an oxygen-barrier coating at 2-8℃ away from light. The liquid medium has a shelf life of 1 year under these conditions.

Notes

1. Please wear a lab coat and use disposable gloves and a mask during operation.
2. To ensure the optimal performance of this product, please strictly adhere to the recommended storage conditions for its preservation.
3. This product is intended for scientific research exclusively or as a raw material in the production process, and must not be applied for clinical diagnosis or treatment.