MEM, with NEAA, powder

Cat. No.: PM150410P

Size: 5×1L / 1×10L / 1×50L / 100L / 500L

General Information

Product Form	Powder
D-Glucose	1000 mg/L
Concentration	9.59 g/L
HEPES	Negative
L-Glutamine	2 mM
$NaHCO_3$	Negative
Phenol red	10 mg/L
Balanced Salt Solution	Earle's
NEAA	Positive
Sodium pyruvate	Negative
Storage	2-8°C, Shading Light
Shipping	Room Temperature
Expiration date	36 months

Background

MEM medium (Minimum Essential Medium) was developed on the basis of Eagle basic medium. It is one of the most basic and widely used culture medium, and one of the most commonly used culture medium in animal cell culture. MEM medium contains 12 kinds of essential amino acids, glutamine and 8 vitamins, which is simple, mainly used in the culture of adherent cells.

MEM, with NEAA medium is added L-alanine, L-glutamic acid, L-asparagine, L-aspartic acid, L-proline, L- serine and glycine on the basis of MEM medium. These 7 kinds of NEAA, can reduce the side effects of producing non-essential amino acids during cell culture and promote cell proliferation and metabolism.

This product 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. Therefore, 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°C 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 9.59 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 2.2 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°C away from light. The liquid medium has a shelf life of 1 year under these conditions.

Notes

1. This product is only used for scientific research or further research, not for diagnosis and treatment.
2. Please wear a lab coat and use disposable gloves and a mask during operation.
3. To ensure the optimal performance of this product, please strictly adhere to the recommended storage conditions for its preservation.