M199, powder

Cat. No. : PM150610P

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

General Information

Product Form	Powder
Balanced Salts	Earle's
D-Glucose	1000 mg/L
Concentration	9.53 g/L
HEPES	Negative
L-Glutamine	0.685 mM
$NaHCO_3$	Negative
Phenol red	20.0 mg/L
Sodium pyruvate	Negative
Storage	2-8°C, Shading Light
Shipping	Room temperature
Expiration date	36 months

Background

M199 (Medium 199), designed by Morgan et al. in 1950, was originally used for nutrition research of chicken embryo fibroblasts and has been widely used in the culture of various animal cells, including some non-mammalian cells. M199 is particularly suitable for the culture of non-transformed cells, and is also commonly used in the culture of rat pancreatic epithelial cells and mouse lens tissue. Compared to other basal media, M199 contains unique components, including adenine, adenosine, hypoxanthine, thymine, and other vitamins. M199 has two balanced salt components, Earle's salt component is commonly used in CO_2 environments, and Hank's salt component is used in non-CO_2 environments. This product contains many kinds of cell culture required amino acids, vitamins, inorganic salts and other ingredients, but does not contain protein, lipids or any growth factors, so this 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 1L 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 9.53 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 be taken 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.