

M199 (Without Phenol Red) Complete Medium Product manual

Basic Information

Cat.NO	Size	Shelf	Form	Storage	Transportation
CMC0034	500mL	6 months	Liquid	Store at 2-8°C away from light	2-8°C

Product Introduction

Components	M199 (Without Phenol Red)(CMB0075)+10% Nutrient+1% Supplement
Concentration	Ready-to-use
Bacteria Detection	Negative
Fungi Detection	Negative
Mycoplasma Detection	Negative
Endotoxin Content (EU/mL)	< 3

Background

M199 stands for Medium 199, which was designed by Morgan et al. in 1950. It was originally used for nutritional research on chicken embryo fibroblasts and is now widely used in the culture of various animal cells, including some non-mammalian animal cells. M199 is particularly suitable for the culture of non-transformed cells. It is also commonly used in virology, vaccine production, and the culture of rat pancreatic epithelial cells and mouse lens tissue. Compared with other basal culture media, M199 contains unique ingredients, including adenine, adenosine, hypoxanthine, thymine, and other vitamins. M199 has two balanced salt components. Earle's salt components are often used in CO₂ environments, and Hank's salt components are used in non-CO₂ environments.

This product contains a variety of ingredients such as amino acids, vitamins, inorganic salts, etc. required for various types of cell culture, but does not contain proteins, lipids or any growth factors. Therefore, this product needs to be used with serum or serum-free supplements.

Phenol red is used as a pH indicator in culture media to continuously monitor the pH of the culture medium. At low pH values, phenol red makes the culture medium yellow, while at higher pH values, the culture medium turns purple. It turns red at pH 7.2-7.4, which is most suitable for cell culture. However, phenol red also has some disadvantages. Studies have shown that phenol red can simulate the effects of steroid hormones (especially estrogen). Therefore, when using estrogen-sensitive cells (such as breast tissue), it is best to use a culture medium that does not contain phenol red. Phenol red can interfere with detection during flow cytometry analysis. In addition, the presence of phenol red in some serum-free culture medium formulas can interfere with sodium-potassium balance.

Precautions

1. During the entire process, be sure to pay attention to aseptic operation to avoid contamination;
2. To maintain the best use effect of this product, please do not perform freeze-thaw treatment;
3. This product is only used for research or further research, not for diagnosis and treatment.
4. It is not suitable for long time storage at room temperature.
5. This product is a ready-to-use medium. If there is no special need, don't add serum, penicillin and streptomycin. It can be used directly.