Anti-Mycoplasma Treatment Reagent, 500 ×

Cat. No.: P-CMR-001
Size:1 mL / 1 mL×5

General Information

Product Form	Liquid
Concentration	500 ×
Storage	-5~-20°C, shading light. Avoid repeated freeze-thaw.
Shipping	Ice bag
Expiration date	24 months

Background

Mycoplasmas are a class of minimal prokaryotic microorganisms that lack a cell wall, exhibit remarkable pleomorphism, possess the capability to traverse bacterial filters, and are capable of proliferating in artificial culture media. Their distinctive ability to form filamentous and branching structures earns them the designation of mycoplasmas.

In cell culture, mycoplasma contamination is a prevalent and often underestimated issue. Infected cells may show morphological as well as functional changes, such as decreased or shut down proliferation or diminished production of cellular metabolites. In addition, an infection may occur unnoticed, resulting in undesired deviations of cellular function. Therefore, a frequent examination for possible contamination with mycoplasma and an effective treatment are essential for a successful work with cell cultures.

The main sources of mycoplasma contamination in cell culture include:

1) Cross-contamination between cells.
2) Contamination from the oral and skin of cell culture operators.
3) Contamination from the working environment or experimental equipment.
4) Poor aseptic techniques by experimenters.
5) Introduction of contamination from components used in cell culture, such as serum, culture media, etc..
6) Contamination from the original tissues or organs used for cell preparation.

Anti-Mycoplasma Treatment Reagent (500 ×) is a mixed solution developed by the Procell research team . It comprises specialized components that efficiently combat mycoplasmas by inhibiting their DNA replication and the synthesis of vital proteins essential for growth, ultimately resulting in their effective eradication.

Special Advantages

1. Ready-to-use solution
2. Effective removal of mycoplasma
3. No effect on cell proliferation
4. Broad range of action
5. Permanent cure for most cell types

Instructions for use

1. According to the characteristics of the cultured cells, Anti-Mycoplasma Treatment Reagent (500 ×)

is added to the corresponding complete culture medium. Prepare the fresh medium before use.

2. Anti-Mycoplasma Treatment Reagent (500 ×) is diluted in complete culture medium (e.g. 1 mL in 500 mL) and incubated with affected culture.
3. Cells should be rinsed with PBS at start of treatment and between changes of medium. Once a day for 3 consecutive days or every 2 days for a total of 6 treatments; if mycoplasma are still present after three weeks, increase concentration to 1:100 (1 mL in 100 mL) until the mycoplasma is cleared.
   Note: Cultures should be checked about once a week for presence of mycoplasma with a reliable method.
4. Since potential contamination sources may still exist in the environment, to prevent cells from being re-contaminated by mycoplasma, mycoplasma testing can be conducted every two month to ensure that there is no new mycoplasma contamination.
5. Operational procedures for preventing mycoplasma contamination
   If cells need to be cultured for a long time or there is a shared liquid nitrogen tank, it is recommend ed to carry out regular prevention every 2-3 weeks, add an appropriate amount of Anti-Mycoplasm a Treatment Reagent to the cell culture medium, and the recommended dilution multiple is usually 2500×. For example, add 2 μL of Anti-Mycoplasma Treatment Reagent to 5 mL of complete culture medium and mix well. Continuously add the drug and culture for 1-2 weeks to effectively prevent m ycoplasma contamination or inhibit mycoplasma proliferation.
   Note: Since embryonic stem cells are relatively fragile, it is recommended to use a concentration of 5000× to prevent mycoplasma.

Notes

1. This product is only used for scientific research or further research, not for diagnosis and treatment.
2. This product is sterilized by 0.1 μm filtration.
3. It is necessary to pay attention to the aseptic operation and avoid the pollution during the culture.
4. Store the reagent at -5~-20°C with shading light and avoid repeated freeze-thaw. If the reagent is stored at 2-8°C with shading light, please use it within 2 weeks.
5. Anti-Mycoplasma Treatment Reagent (500 ×) is yellow-green. Long periods of light will cause the reagent to failure. Do not use when the color changes to grayish green or dark brown.

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