Mycoplasma Prevention Solution (Catalog#8005)

BACKGROUND

Mycoplasma contamination is one of the most common and major problems in cell cultures for research laboratories and industries. A conservative estimate states that around 15-35% of all continuous cell cultures are contaminated with mycoplasma. Mycoplasma is one type of the smallest and simplest self-replicating prokaryotes and can't be detected by visual inspection. The mycoplasma gradually affects cell growth and alters DNA, RNA, and protein synthesis in the host cells.

DESCRIPTION

The Mycoplasma Prevention Solution is designed to prevent mycoplasma contamination in cultured cells when it has been added into culture medium. The activity of this solution is stable in culture medium and not be affected by penicillin, streptomycin, and serum. This solution exhibits no toxicity to cultured cells.

CONTENT

Mycoplasma Prevention Solution in 5x 1ml tubes at a concentration of 5 mg/ml.

The solution has been sterilized and filtered through 0.2 µm filter.

APPLICATIONS

Prevent mycoplasma contamination in cultured cells.

STORAGE CONDITIONS

The Mycoplasma Prevention Solution is shipped at room temperature and should be stored at -20°C upon arrival for long-term storage. The solution is stable for 2 weeks at room temperature and at least one year at -20°C. Avoid repeated freeze-thaw cycles.

This product is for in vitro research use only and is not intended for use in humans or animals in therapeutic or diagnostic procedures.

SUGGESTED PROTOCOL

To prevent mycoplasma contamination, the cells should be kept mycoplasma free and the environment should be cleaned by AntiMycoplasma Spray.

1. Decontaminate the external surface of the tube of solution by spraying with 70% ethanol.
2. Add 0.1mL mycoplasma Prevention Solution into 500mL of culture medium at a concentration of 5 µg/ml (1:5000 dilution from stock concentration of 25 mg/ml) under aseptic condition.
3. Remove the old medium from plate and replace with fresh medium containing Mycoplasma Prevention Solution.
4. The medium should be changed every other day. If the cells are stem cells or iPS cells, the medium should be changed every day.
5. To prevent mycoplasma contamination, the cells should be cultured in this solution for at least one week and frequently tested by using conventional PCR or cell-based staining.
6. If the cells were contaminated, we suggested using AntiMycoplasma Solution (Cat# TBS8006).

REFERENCE

1. Drexler HG, Uphof CC (2002). Cytotechnology 39: 75–90

2. Aldecoa-Otalora E, Langdon WB, Cunningham P, Arno MJ (December 2009). "Unexpected presence of mycoplasma probes on human microarrays". BioTechniques 47 (6): 1013–5.

RELATED PRODUCTS

AntiMycoplasma Solution (Catalog# TBS8006)
AntiMycoplasma Spray (Catalog# TBS8007)
Fetal Bovine Serum (Catatlog# TBS8001)
PBS (Catalog# TBS5003 or TBS5027)

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