

## Product Name

Name: MycoClear-3 Antibiotic Solution 100X Conc.

Cat. No.: C3472-0010、C3472-0020、C3472-0100

Size: 10 mL / 20 mL / 100 mL

## Product Description

MycoClear -3 based on ciprofloxacin, a member of the 4-quinolone class, a newer family of the fluoroquinolone class, broad-spectrum, bactericidal antibiotics. It is one of several synthetic antibiotics available to prevent, treat and control contamination of cell lines by *Mycoplasma* species. The mode of action (MOA) of ciprofloxacin inhibits bacterial nuclear DNA synthesis by targeting DNA gyrase (topoisomerase II), an enzyme responsible for growth, repair, and reproduction of bacteria. Specifically, it is responsible for the supercoiling and uncoiling of DNA so that DNA can be twisted in a number of chromosomal domains and seal around an RNA core. Supercoiling of DNA allows the long DNA molecule to fit into the cells. Uncoiling of the DNA is the initiative step for replication, transcription, and repair of the DNA. Therefore, the prolonged inhibition caused by MycoClear -3 will eventually lead to the death of microorganism.

Since the introduction of echinocandins (i.e., synthetically modified lipopeptides which inhibit the synthesis of  $\beta$ -D-glucan in fungal cell wall) and the broad-spectrum azoles, amphotericin B formulations became less popular in use. However, with its long-proven track record, its place in the anti-fungal armamentarium is still ensured.

The current role of this anti-mycotic solution in cell culture is multi-faceted and may be divided into several principal functions.

- Anti-mycotic spectrum only (not bactericidal or virucidal)
- Interacts with the fungal cell membranes by increasing membrane permeability
- One hundred percent (100%) pharmacokinetic activity

## Predominant Characteristics

- Easy-to-use
- Liquid formulation
- Sterile-filtered (0.1 $\mu$ m)
- Shows high anti-mycoplasma activity

The MycoClear -3 antibiotic treatment regimen is easy to perform. When utilized properly and at the recommended concentrations, no cytotoxic or other untoward effects have been reported. Treat the cell culture as follows:

1. Add 1 mL of MycoClear -3 to 100 mL of culture medium.
2. Continue the treatment for a total of 14 days and change the medium (containing the MycoClear -3) every 2-3 days.
3. Retain the cells in the growth medium for an additional 14 days before re-testing for the presence of *Mycoplasma*.

## Handling & Stability

The product should be stored at -20°C and should be warmed to room temperature prior to use. The product should not be left in the light for prolonged periods as it is light-sensitive. When stored in the dark under ideal conditions, the product is stable until the expiry date shown on the label.

## Instructions

1. Take a bottle out from the freezer and read the label.
2. Thaw to room temperature.



3. Ensure that the cap of the bottle is tight.
4. Gently swirl the solution in the bottle.
5. Wipe the outside of the bottle with a disinfectant solution such as 70% ethanol.
6. Take appropriate volume of the solution using aseptic/sterile technique under a laminar flow culture hood.

**Manufacturer**

Shanghai Dr. Cell Co., Ltd.

**Effective Date**

April 2023

**Precaution and Disclaimer**

For research use only, not for clinical diagnosis and treatment.

