Product Name

Name: MycoNator™-3 Antibiotic Solution 100X Conc.

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

Size: 10 mL, 20 mL, 100 mL

Product Description

MycoNator™-3 based on ciprofloxacin, a member of the 4-quinolone class, a newer family of the fluroquinolone 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 MycoNator™-3 will eventually lead to the death of microorganism.

Since the introduction of echinocandins (i.e., synthetically modified lipopeptides which inhibit the synthesis of β-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
- 100% pharmacokinetic activity

Predominant Characteristics

- Easy-to-use
- Liquid formulation
- Sterile-filtered (0.1 μm)
- Shows high anti-mycoplasma activity

Storage and Stability

The product should be kept at **-20°C.**
The product is **light-sensitive** and therefore should not be left in the light.
Shelf life: 18 months from date of manufacture

Procedure

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.

Recommended use

1. Add 1 mL of MycoNator™-3 to 100 mL of culture medium.
2. Continue the treatment for a total of 14 days and change the medium (containing the MycoNator™-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*.

Quality Control

MycoNator™-3 Antibiotic Solution 100X Conc. is tested for sterility.

Precaution and Disclaimer

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