



## INSTRUCTIONS

# CurePlasma™

## Mycoplasma Elimination Reagent

**Package Contents:** 1 vial

CurePlasma™					
Catalog No.	Package	Price	Quantity/Unit	Form	Sipping and Storage Guidelines
R-CP01	1 ml	1150	1 vial.	Liquid. Light yellow.	Stable for 2 weeks at room temperature. Storage at 4 °C for 1 year.
R-CP02	2 ml	1610			
R-CP03	5 ml	2420			
R-CP04	10 ml	3388			

### Storage

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CurePlasma is shipped at room temperature. Upon receipt, it can be stored at 4 °C for 1 month or at -20 °C for long-term storage. Avoid repeated freezing and thawing.

#### *Notes:*

A crystalline precipitate may form during storage. If this occurs, vortex the product until the crystalline precipitate disappears. The formation of a crystalline precipitate does not affect the product activity.

### BACKGROUND

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There exists mycoplasma contamination in up to 35% of cell cultures, which could alter DNA, RNA and protein synthesis, introducing chromosomal aberrations and causing alterations or modifications of host cell plasma membrane antigens. Unlike bacterial or fungal contaminations, mycoplasma contamination cannot be detected by visual inspection and may affect cell growth rates unnoticeably. Thus, long-lasting and successful elimination is required.

### DESCRIPTION

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CurePlasma is a highly cited broad-spectrum anti-mycoplasma reagent. Cell cultures contaminated with mycoplasmas, such as *M. arginini*, *M. fermentans*, *M. laidlawii*, and *M. hyorhina* can be efficiently cured by CurePlasma treatment. In contrast to other anti-mycoplasma compounds, CurePlasma is active in both extracellular mycoplasmas and intracellular forms, for one component of CurePlasma can be actively transported into mammalian cells.



In addition, CurePlasma™ is active at low concentrations on a broad range of Gram-positive bacteria, such as Staphylococcus species, and Gram-negative bacteria, such as E. coli, Enterobacter, Pseudomonas, and Alcaligenes.

A great number of cell lines infected by mycoplasmas have been successfully treated with CurePlasma™, including hybridomas, lymphocytes, epithelial cells, murine embryonic stem cells, and retrovirus packaging cells. It has been shown that treatment with CurePlasma restores cellular responses following mycoplasma clearance.

## ADVANTAGES

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1. Effective with only one treatment, easily removed after the treatment.
2. Long-lasting, successful elimination.
3. Broad-spectrum anti-mycoplasma reagent, eliminating mycoplasma by directly killing.
4. Active on both extracellular and intracellular mycoplasmas.
5. Low cytotoxicity, causing no undesirable side effects on eukaryotic cells.
6. No resistant mycoplasma strains have been developed.

## PROCEDURE

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### **For Adherent Cell Lines:**

1. Prepare cells and the elimination mix in a sterile 6-cm petri dish.
2. Add 3 ml of standard cell culture medium and 5 µl CurePlasma Reagent to the dish.
3. Transfer 2 ml of  $1 \times 10^4$  to  $1 \times 10^5$  of freshly trypsinized cells in cell culture medium into the mix. The total volume of the treatment mixture is 5 ml.
4. Maintain the cells in the elimination mixture for two entire passages (approximately 3-8 days) in normal growth conditions. Then, remove the elimination mix by discarding the supernatant. Refresh the medium with standard cell culture medium.

### ***Note:***

*To prevent mycoplasma contamination, cells can be cultured in the presence of 1:2000 diluted CurePlasma in normal growth conditions.*

### **For Suspension Cell Lines:**

1. Add 1.5ml mix of 0.125% trypsin and 5 mM EDTA in PBS and 3 µl of CurePlasma Reagent to a sterile centrifuge tube.
2. Transfer 1.5-ml standard cell culture medium with  $1 \times 10^4$  to  $1 \times 10^5$  suspension cells into the mixture.
3. Maintain the cells in the elimination mixture for two entire passages (approximately 3-8 days) in normal growth conditions.
4. To remove the elimination mix, pellet the cells gently by centrifugation (600g, 5 min), discard the supernatant and resuspend the cells with CurePlasma-free standard cell culture medium.

### **CAUTIONS**

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1. Make sure the treatment is on single cells by checking with a microscope. If necessary, extend trypsin treatment time or detach the cells from each other by repeat pipetting.
2. Add cells directly to the elimination mix to avoid evaporation.
3. The most effective method is to maintain cells in the elimination mixture for two passages in normal growth conditions.
4. Trypsin is needed to avoid cell aggregates.

#### ***Note:***

*To prevent mycoplasma contamination, cells can be cultured in the presence of 1:2000 diluted CurePlasma in normal growth conditions.*

### **TROUBLESHOOTING**

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Following a 2-week treatment with CurePlasma, mycoplasmas should be eliminated. If mycoplasma contamination is reduced but still present, treat your cells with CurePlasma for a further week. However, if there is no reduction of the mycoplasma contamination following treatment with CurePlasma, the mycoplasma may be resistant to CurePlasma.

### **Cytotoxicity of CurePlasma**

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Similar to all other products available for mycoplasma inactivation, CurePlasma also shows a cytotoxic effect on adherent and nonadherent cell lines. CurePlasm has been tested on numerous cell lines and a cytotoxicity between 10-80% has been found, with enough viable cells recovering from further subcultivation. Generally, higher proliferation rates due to the removal of parasite will compensate for the lose of cell material.

## Contact Information

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Genemedi Biotech. Inc.

For more information about reagents, please visit: <https://www.genemedi.net/i/reagent>

For more information about Genemedi products and to download manuals in PDF format, please visit our web site: [www.genemedi.net](http://www.genemedi.net)

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