

## Anti-Nanobacteria Treatment Reagent, 200 ×

Cat. No. : P-CMR-002

Size : 1mL / 1mL×5

### General Information

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

### Background

Nanobacteria and their decomposition complexes are the common contaminant in cell cultures that co-exists with cells. Antibiotics are usually ineffective. Nanobacteria grows competitively with cells, which is unfavorable to cell growth, and in severe cases causes cell death. At present, many cells are contaminated with nanobacteria, which has a great impact on cell culture and subsequent experiments. The common characteristics of cells contaminated by nanobacteria are as follows:

- (1) The medium is not turbid, but when the cells are observed under a microscope, there are many "small black spots" around the cells or in the culture medium. With the extension of culture time, the "small black spots" gradually increase, and they cannot be removed by changing the culture medium or washing the cells;
- (2) The cells contaminated by the "small black spots" consume fast nutrients and require frequent replacement of the culture medium;
- (3) Nanobacteria - contaminated cells grow slowly, have poor cell states, and are severely vacuolated. They may even cause changes in cell morphology. Therefore, it is of great significance to clean up nanobacteria contamination in cell culture.

### Instructions for use

1. According to the characteristics of the cultured cells, the anti-nanobacteria treatment reagent is added to the corresponding complete culture medium. Prepare the fresh medium before use.
2. Recommended dilution ratio is 1:200. For example, add 50 µL of anti-nanobacteria treatment reagent to 10 mL of complete culture medium.
3. Discard the medium of cultured cells, wash the cells with sterile PBS solution, then add prepared fresh complete culture medium with anti-nanobacteria treatment reagent. The obvious effect can be seen after 3 days of continuous use. Nanobacteria can be cleaned up after 12-14 days of treatment. If the cell contamination is very serious, the treatment time can be extended 3-5 days appropriately.
4. Since nanobacteria may be present in the environment, in order to prevent the cells from being contaminated by the nanobacteria again, it is recommended that you continue to use anti-nanobacteria treatment reagent to achieve the effect of prevention.
5. Operational procedures for preventing nanobacteria contamination  
If cells need to be cultured for a long time or there is a shared liquid nitrogen tank, it is

recommended to carry out regular prevention every 2-3 weeks. Add an appropriate amount of Anti-Nanobacteria Treatment Reagent to the cell culture medium, and the recommended dilution factor is usually 1000 $\times$ . For example, add 2  $\mu$ L of Anti-Nanobacteria Treatment Reagent to 2 mL of complete culture medium and mix well. Continue to add the drug and culture for 1-2 weeks to effectively prevent nanobacteria contamination or inhibit nanobacteria proliferation.

**Note:** Since embryonic stem cells are relatively fragile, it is recommended to use a concentration of 2000  $\times$  to prevent nanobacteria.

## Notes

1. This product is for research use only.
2. This product is sterilized by 0.1  $\mu$ m filtration.
3. It is necessary to pay attention to the aseptic operation and avoid the pollution during the culture. It is not suitable for long time storage at room temperature.
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-Nanobacteria Treatment Reagent (200 $\times$ ) is yellow-green. Long periods of light will cause the reagent to fail. Do not use when the color changes to grayish green or dark brown.