Nanobacteria Removal Reagent (500×)

Introduction

Nanobacteria and their complexes are the common contaminants in cell culture and cannot be removed by conventional 0.22 μm filtration. Nanobacteria are small black swimming dots with a motion characteristic similar to Brownian motion under the microscope. Nanobacteria contamination generally has the following characteristics:

1) Although the medium is not turbid, a large number of small black spots around the cells and in the culture medium can be seen under the microscope, and the number of small black spots gradually increases with the extension of culture time. Changing the medium or washing the cells does not improve.

2) Commonly used antibiotics such as penicillin, streptomycin, gentamicin, etc., are ineffective.

3) The nanobacteria can result in slow cell growth, poor condition, vacuolation, and even changes in cell morphology.

Nanobacteria Removal Reagent (500×) is a reagent that can effectively kill nanobacteria in serum, culture medium and cells, and its main component is antibiotic. This reagent also has a certain killing effect on common bacteria, but it is non-toxic to cells, and this reagent hardly affects the proliferation of the cells.

Components and Storage

Components \ Size	400 μL	Storage
Nanobacteria Removal Reagent (500×)	400 μL	-20°C away from light
Shipping: Dry ice	**Shelf life: 1 year**	

Protocol

1. Before use, Centrifugal and mix the Nanobacteria Removal Reagent (500×), then wipe with 75% ethanol and put it into the clean bench.
2. Dilute Nanobacteria Removal Reagent (500×) in a fresh complete culture medium at a ratio of 1:500. For example, add 10 μL of Nanobacteria Removal Reagent (500×) into 5 mL of complete culture medium. Prepare a fresh complete culture medium containing Nanobacteria Removal Reagent (500×) every time.

***Note:** The dilution ratio can be adjusted according to the specific situation, generally within 1:500-1:1000. At the same time, this

product already contains antibiotics, it is not recommended to use together with other antibiotics to avoid antagonistic effects.

3. Make sure that the density of cells that need to be treated is 50-70%.
4. Remove the medium and wash the cells 2-3 times with PBS. Add the fresh complete culture medium containing Nanobacteria Removal Reagent (500×) to culture cells.
5. Place cells in the incubator and culture normally.
6. Change the fresh complete culture medium containing Nanobacteria Removal Reagent (500×) every two days, and treat 3 times consecutively. Nanobacteria can be significantly eliminated.

***Note:** In order to prevent the cells from becoming contaminated again, it is recommended to continue using this product for a period of time for a preventive effect.

Note

1. The dilution ratio can be adjusted according to the specific situation, generally within 1:500-1:1000.
2. At the same time, this product already contains antibiotics, it is not recommended to use together with other antibiotics to avoid antagonistic effects.
3. Cell aging or poor condition may produce black cellular secretions, which will continue to be produced with cell culture. Because it is not nanobacteria, it cannot be effectively removed by this product
4. For your safety and health, please wear lab coats and gloves during the experiment.
5. For research use only. Not to be used in clinical diagnostic or clinical trials.

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