Bacterial contamination of precious cell cultures can be devastating. Unfortunately, common antibiotic treatments, such as Penicillin/Streptomycin, cannot always protect cells, especially against non-fermenting Gram- bacteria, a group of environmental bacteria, that are often multidrug resistant and thus very difficult to eliminate. InvivoGen can help! We introduce Normocure™, a novel very potent antibiotic cocktail for the elimination of virtually all the bacteria in cell cultures.

- Highly potent antibiotic cocktail
- Active against multidrug resistant bacteria
- Visible results in as little as 3 to 4 days

InvivoGen's latest weapon

The Antibacterial Super Agent
Save Your Valuable Cell Lines from Invaders

Broad-spectrum antibacterial agent
- Staphylococcus sp.
- Pseudomonas sp.
- Bacillus sp.
- Alcaligenes sp.
- ...

To learn more, visit: www.invivogen.com/normocure

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HEK293 cells (3 × 10^5 cells/ml) were spiked with a mixture of Gram- non-fermenting bacilli (Pseudomonas aeruginosa, Alcaligenes xylosodans, Achromobacter sp. and Stenotrophomonas maltophilia) at the concentration of 10^5 colony forming units (cfu)/ml, and were then either left untreated, or treated with 100 U/ml penicillin and 100 μg/ml streptomycin or with 100 μg/ml Normocure™. After 4 days at 37°C, 5% CO₂, the bacteria were quantified (cfu per ml).

Normocure™ is provided as a ready-to-use solution at 50 mg/ml. Simply add it to bacteria contaminated cell cultures at the concentration of 100 μg/ml for 2 weeks. After the first passage, >99% of bacterial contaminants are eradicated. After 3 passages, the bacterial contamination is totally eliminated.

**Bacterial Contamination of Cell Cultures**

Although microbial contamination of cell cultures has been known for over 50 years, it remains a widespread cause of erroneous research results, reduced reproducibility and even of unusable therapeutic products. Bacteria are found virtually everywhere, in the air, the soil, and water, and in and on plants and animals, including humans. These organisms can usually be readily detected in a cell culture within a few days of contamination, either directly, by microscopic observation, or indirectly, by their effects on the cell culture (pH shifts, turbidity [visible by naked eye from 10^4 cfu/ml], and cell destruction).

There are two major sources of bacterial contaminants; the animate environment (e.g. man) represented by Staphylococcus species, and the inanimate environment, represented by saprophytic and particularly by waterborne organisms, such as Pseudomonas species and Flavobacterium species. The latter two bacterial species, as well as Achromobacter sp., Alcaligenes sp. and Bordetella sp., are nonfermenting gram-negative bacilli, a heterogenous group of environmental opportunistic bacteria. Bacteria from this group have been reported to infect cell cultures and to be very difficult to eliminate, as they are resistant to most antibiotics used to treat cell cultures, including penicillin/streptomycin.


**Also Available**

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<tr>
<td>Normocure™</td>
<td>ant-noc</td>
<td>160 € / £ 132</td>
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For more information, visit [www.invivogen.com/cell-culture-contamination](http://www.invivogen.com/cell-culture-contamination)