

# Normocin®

For the prevention of cell culture contamination by mycoplasma, bacteria or fungi

Catalog code: ant-nr-05, ant-nr-1, ant-nr-2

<https://www.invivogen.com/normocin>

**For research use only. Not for human or veterinary use.**

Version 24G30-MM

## PRODUCT INFORMATION

### Content

Normocin® is supplied as a cell culture tested, sterile filtered red solution at 50 mg/ml. It is available in 3 pack sizes:

- **ant-nr-05:** 5 x 1 ml (250 mg)
- **ant-nr-1:** 10 x 1 ml (500 mg)
- **ant-nr-2:** 1 x 20 ml (1 g)

One 1 ml vial is sufficient for 500 ml of culture.

One 20 ml bottle is sufficient for 10 liters of culture.

### Shipping and Storage

- Normocin® is shipped at room temperature. Upon receipt it can be stored at 4 °C or at -20 °C. Avoid repeated freeze-thaw cycles.
- The expiry date is specified on the product label.

*Note: Product is stable for 1 month at room temperature.*

## QUALITY CONTROL

Each lot is thoroughly tested to ensure the absence of lot-to-lot variation:

- Endotoxin level: < 0.5 EU/mg
- Physicochemical characterization (pH, appearance)
- Cell culture tested: potency validated on bacterial and fungal reference strains

## DESCRIPTION

Normocin® is an innovative formulation of three antibiotics active against mycoplasma, bacteria and fungi. It is widely used and cited as a «routine addition» to cell culture media to prevent contamination in animal cell cultures<sup>1-5</sup>. It is active against Gram-positive (e.g. *Bacillus* and *Staphylococcus* species) and Gram-negative bacteria (e.g. *E. coli* and *Enterobacter*), mycoplasmas and fungi including yeasts (e.g. *C. albicans* and *S. cerevisiae*).

Normocin® can be used in combination with penicillin and streptomycin (Pen-Strep) solutions to broaden the anti-bacterial spectrum. It displays very efficient anti-mycoplasma action and eliminates basal resistance. Normocin® provides maximum protection against microbial contamination with minimum cytotoxicity.

1. **Shukla S. et al., 2016.** Inhibition of telomerase RNA decay rescues telomerase deficiency caused by dyskerin or PARN defects. *Nat Struct Mol Biol.* 23(4):286-92.
2. **Tuttle TR. et al., 2016.** The cyclic GMP/protein kinase G pathway as a therapeutic target in head and neck squamous cell carcinoma. *Cancer Lett.*, 370(2):279-85.
3. **Casson CN. et al., 2015.** Human caspase-4 mediates noncanonical inflammasome activation against gram-negative bacterial pathogens. *PNAS*, 112(21):6688-93.
4. **Hamdorf M. et al., 2015.** miR-128 represses L1 retro-transposition by binding directly to L1 RNA. *Nat Struct Mol Biol.*, 22(10):824-31.
5. **Lee EC. et al., 2014.** Complete humanization of the mouse immunoglobulin loci enables efficient therapeutic antibody discovery. *Nat Biotechnol.*, 32(4):356-63.

*Note: Normocin® is a registered trademark of InvivoGen.*

### TECHNICAL SUPPORT

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## COMPOSITION

Normocin® contains three compounds. Two of these compounds act on mycoplasmas, Gram-positive and Gram-negative bacteria by blocking DNA and protein synthesis. The third compound eradicates fungi, including yeasts, by disrupting ionic exchange through the cell membrane.

## METHOD

For cell culture maintenance, Normocin® is used at a concentration of 100 µg/ml, which represents a 1:500 dilution of stock solution. Refer to the table below to determine the volume needed.

| Reagent   | T25 with 5 ml medium | T75 with 15 ml medium | 500 ml bottle |
|-----------|----------------------|-----------------------|---------------|
| Normocin® | 10 µl                | 30 µl                 | 1 ml          |

1. Split an actively dividing culture of cells into medium containing 100 µg/ml of Normocin®.
2. Remove and replace with fresh Normocin® containing medium every 3-4 days.
3. Repeat every time you change culture medium.

## RELATED PRODUCTS

| Product                 | Description                     | Cat. Code |
|-------------------------|---------------------------------|-----------|
| Fungin™                 | Antifungal agent                | ant-fn-1  |
| Normocure™              | Antibacterial agent             | ant-noc   |
| Plasmocin® Prophylactic | Anti-mycoplasma agent           | ant-mpp   |
| Plasmocin® Treatment    | Mycoplasma removal agent        | ant-mpt   |
| PlasmoTest™             | Mycoplasma detection kit        | rep-pt1   |
| Primocin®               | Antimicrobial for primary cells | ant-pm-05 |