

Normocin™

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

Catalog # ant-nr-1, ant-nr-2
<http://www.invivogen.com/normocin>

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

Version #16E20-MM

PRODUCT INFORMATION

Content

Normocin™ is supplied as a cell culture tested, sterile filtered red solution at 50 mg/ml. It is available in 2 pack sizes:

- **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 2 weeks 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 cultures¹⁻⁵. 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 retrotransposition 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.

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-1

TECHNICAL SUPPORT

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