Penicillin-Streptomycin-Amphotericin B Solution, 100 ×

Cat. No. : PB180121

Size : 100mL

General Information

Product Form	Liquid
Concentration	100 ×
pH	4.0-6.5
Amphotericin B	25 μg/mL
Dissolvent	Normal Saline
Antimicrobial spectrum	Gram-positive bacteria, Gram-negative bacteria & Fungi
Penicillin G	10 kU/mL
Streptomycin sulfate	10 mg/mL
Storage	-5~-20°C, shading light
Shipping	Ice bag
Expiration date	12 months

Background

Penicillin-streptomycin solution mixture is the most commonly used antibiotic to prevent microbial contamination in vitro. Penicillin can interfere with the synthesis of bacterial cell wall, especially for Grampositive bacteria. Streptomycin could bind to ribosomal ribosome for 30S and inhibit the synthesis of bacterial protein. It was effective for Gram-negative bacteria and Gram-positive bacteria, but especially for Gramnegative bacteria. Amphotericin B can bind with ergosterol on the membrane of fungi, leading to damage of the membrane, improvement of permeability, leakage of substances inside the cell, disruption of normal metabolism and bacteriostatic effect, but no effect on bacteria. The combined use of penicillin, streptomycin & amphotericin B can prevent most bacterial and fungus contamination. But penicillin solution is sensitive to temperature and pH, easy to degrade at room temperature, and needs cryopreservation, the stability of penicillin solution is the most stable when pH is 6.0 - 6.5. Streptomycin was relatively stable, and pH 5.0-7.5 was the most stable. Amphotericin B solution is unstable at room temperature, easily destroyed by light, heat and acid, and has the strongest antibacterial effect at pH 6.0 - 7.5.

Notes

1. This product is only used for scientific research or further research, not for diagnosis and treatment.
2. This product is sterilized by 0.1 μm filtration.
3. It is necessary to pay attention to the aseptic operation and avoid the pollution.
4. It is not suitable for long time storage at room temperature or 2-8°C.
5. Thaw in 2-8°C and mix fully before use. Avoid repeated freezing and thawing. It is recommended to aliquot the solution and store at -5~-20°C.
6. This product is a concentrated solution and dilute it to the desired concentration before use.