# Antibiotic-Antimycotic Solution (100X)
# PRODUCT DATA SHEET

issue date 01/06/2020

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| **Product Name:** | Antibiotic-Antimycotic Solution (100X) |
| **Product Number:** | A045 |
| **CAS Number:** | 61-33-6; 57-92-1; 1397-89-3 |
| **Molecular Formula:** | $C_{16}H_{18}N_2O_4S$; $C_{21}H_{39}N_7O_{12}$; $C_{47}H_{73}NO_{17}$ |
| **Molecular Weight:** | 334.39; 581.57; 924.08 |
| **Form:** | Solution |
| **Appearance:** | Light yellow solution |
| **Solubility:** | Solubilized in a proprietary citrate buffer. |
| **Source:** | Mixture |
| **pH:** | 6.3-6.9 |
| **Storage Conditions:** | -20 °C |
| **Description:** | Antibiotic-Antimycotic is a solution is composed of penicillin (10,000 units/mL), streptomycin (10,000 ug/mL), and amphotericin B (25 ug/mL) in 0.9% NaCl that is used to control Gram-positive and Gram-negative bacteria and fungi in eukaryotic cell culture. |
| **Mechanism of Action:** | The penicillin works by destroying the cell walls of non-resistant cells by preventing peptidoglycan linkage followed by the triggering of autolysis. Streptomycin disrupts bacterial protein synthesis by binding the ribosomes. Amphotericin B, the anti-fungal element, works by increasing the permeability of the fungal cell membrane by binding to ergosterol . |
| **References:** | Campos CO et al (2012) Preventing Microbial Contamination during Long-Term *In Vitro* Culture of Human Granulosa-Lutein Cells: An Ultrastructural Analysis. Obstet Gynecol. 2012;2012:152781 PMID 22988519<br><br>Naleway JJ et al (2013) Metabolic lysosomal enzyme probes. Poster presented at Experimental Biology conference. Apr 20-24, 2013 Boston, MA poster 576.1<br><br>Negrete A, Ling TC. Lyddiatt A (2008) Effect of Pluronic F-68, 5% CO2 Atmosphere, HEPES, and Antibiotic:Antimycotic on Suspension Adapted 293 Cells. Open Biotchnol. J. 2:229-234<br><br>Prichard JF et al (1992) *In vitro* co-culture of early stage caprine embryos with oviduct and uterine epithelial cells. Human Reprod. 7(4):553-557 PMID 1522202 |