PEN-STREP (100 X)
For research use only

Catalogue number: BI-1203

Product Description

Penicillin and streptomycin are broad-spectrum bacteriostatic and bactericidal agents effective against Gram positive and Gram negative bacteria. Penicillin, originally purified from Penicillium, acts through the inhibition of cell wall synthesis. Streptomycin, originally purified from Streptomyces griseus, blocks the formation of initiation complex of protein synthesis by binding to the 30S subunit of bacterial ribosome 70S, thus interfering with the protein synthesis. Penicillin-Streptomycin solution can be toxic to some cell lines at high concentrations; therefore, a dose-response testing is required to determine the toxic level of penicillin- streptomycin solution.

Specification

- This product is the Penicillin-Streptomycin (100X) solution with 10000 Units/ml penicillin and 10000ug/ml streptomycin.
- The validated application of the product is the prevention of cell culture contamination.
- Use 10 ml/l concentration for cell culture applications. This concentration is for serum- containing culture media; serum-free media generally require lower concentration.

Notes

- Respect storage conditions of the product.
- Do not use the product after its expiry date.
- Store the product protected from light.
- Manipulate the product in aseptic conditions (e.g. under laminar air flow).
- To avoid contamination, wear clothes adapted to the manipulation of the product (e.g. gloves, mask, and hygiene cap).
- In order to preserve the complete quality of the product, it is recommended to thaw out the flask and aliquote in several tubes. Repeated freeze thawing should be avoided.
- It is recommended to use the product immediately after thawing.
- For research use only. Do not use it in therapy, human or veterinary applications.

Quality Control

- **Appearance:** Colorless Solution, Clear
- **pH:** 5.80 -6.40
- **Sterility:** tested
- **Storage:** -5°C to -20°C; Protect from light.
- **Shelf life:** 12 months
- **Shipping condition:** Dry Ice

Citations

1. Rahmati, Shahram, et al. "Synthesis and in vitro evaluation of electrodeposited Barium titanate coating on Ti6Al4V." Journal of medical signals and sensors 6.2 (2016): 106.
2. Shamsdin, Seyedeh Azra, et al. "Alterations in Th17 and the Respective Cytokine Levels in Helicobacter pylori Induced Stomach Diseases. "Helicobacter 20.6 (2015): 460-475.
3. Golafshan, Nasim, Mahshid Kharaziha, and Mohammadhossein Fathi. "Tough and conductive hybrid graphene-PVA: Alginate fibrous scaffolds for engineering neural construct." Carbon 111 (2017): 752-763.
4. Sisakhtnezhad, Sajjad, Mojdeh Heidari, and Ali Bidmeshkipour. "Eugenol enhances proliferation and migration of mouse bone marrow-derived mesenchymal stem cells in vitro." Environmental toxicology and pharmacology 57 (2018): 166-174.
5. Sharafi, Seyedeh M., et al. "Monoclonal Antibodies Production Against a 40KDa Band of Hydatid Cyst Fluid." Recent patents on biotechnology 12.1 (2018): 57-64.
6. Alehosseini, Morteza, et al. "Hemocompatible and Bioactive Heparin Loaded PCL-α-TCP Fibrous Membranes for Bone Tissue Engineering." Macromolecular Bioscience (2018): 1800020.
7. Adelipour, Maryam, et al. "Correlation of micro vessel density and c-Myc expression in breast tumor of mice following mesenchymal stem cell therapy." Tissue and Cell 49.2 (2017): 315-322.