

bioGenous™ OrganoQC Anti-Fungal Supplement (1000X)

Catalog: E238007

Product Description

bioGenous™ OrganoQC Anti-Fungal Supplement (1000X) is a mixed antimicrobial supplement specifically designed for organoid culture, with a broad antimicrobial spectrum covering fungi, yeasts, and bacteria. During organoid establishment, insufficient washing of biopsy or surgically resected tissues—especially those derived from the gastrointestinal tract, biliary tract, respiratory tract, and cervix—may introduce yeasts or environmental fungi. In addition, organoid culture procedures involving basement membrane matrices, culture media handling, frequent plate opening, and air exposure increase the risk of introducing fungal spores. Once contamination occurs, organoid cultures are typically unusable. Therefore, preventive antimicrobial supplementation is strongly recommended, particularly when working with valuable primary organoid samples.

Amphotericin B is a polyene antifungal agent that irreversibly binds to sterols (primarily ergosterol) in fungal cell membranes, forming transmembrane channels that disrupt membrane integrity. This leads to leakage of intracellular small molecules such as monovalent ions (K^+ , Na^+ , Cl^-), nucleotides, and amino acids, ultimately impairing normal fungal metabolism and causing cell death. Therefore, Amphotericin B is widely used to suppress fungal and yeast contamination. Gentamicin is an aminoglycoside antibiotic effective against a wide range of Gram-positive and Gram-negative bacteria. It functions by binding to the bacterial 30S ribosomal subunit, thereby inhibiting protein synthesis and leading to bacterial cell death. In addition, gentamicin also exhibits inhibitory activity against certain mycoplasma contaminants.

This product contained **250 µg/mL Amphotericin B and 50 mg/mL Gentamicin**. The recommended working concentrations in cell culture medium are 50 µg/mL for gentamicin and 0.25 µg/mL for Amphotericin B, corresponding to a 1:1000 dilution of this supplement. This product is sterile-filtered and can be directly added to organoid culture media. It is also suitable for tissue washing steps during primary organoid establishment.

Product Information

| Component | Catalog# | Volume | Storage & Stability |
|--|----------|------------|---------------------|
| bioGenous™ OrganoQC Anti-Fungal Supplement (1000X) | E238007 | 1mL*5 tube | -20°C, 12 months |

Directions for Use

bioGenous™ OrganoQC Anti-Fungal Supplement (1000×) can be used according to either of the following methods:

- Method 1: Direct addition to sterile organoid culture medium**
Add 50 µL of OrganoQC Anti-Fungal Supplement (1000×) to every 50 mL of sterile organoid culture medium. Mix gently but thoroughly before use.
- Method 2: Addition during preparation of organoid culture medium followed by sterilization**
Add 1 mL of OrganoQC Anti-Fungal Supplement (1000×) per 1 L of organoid culture medium during preparation. After preparation, sterilize the complete medium by filtration before use.
- Method 3: Use during primary tissue processing (washing step)**

Add 50 µL of OrganoQC Anti-Fungal Supplement (1000×) to 50 mL of sterile Phosphate-Buffered Saline (PBS). Use this solution to wash tissue samples during primary organoid tissue preprocessing to help reduce the risk of fungal and yeast contamination.

Precautions

1. Avoid repeated freeze–thaw cycles to maintain product stability and activity.
2. When using antibiotics to prevent fungal contamination, potential cytotoxic effects on certain sensitive cell types, such as stem cells or primary cells, should be considered. It is recommended to perform preliminary validation experiments before routine use. Do not exceed the recommended concentration unless experimentally validated.
3. The supplement is fully compatible with penicillin–streptomycin, which may be added separately if required.

Quality Control

All components are negative for bacterial and fungal contamination. Certificates of authenticity (COAs) for all other products are available upon request.

Safety information

For research use only, not for use in diagnostic procedures. Read the Safety Data Sheets (SDSs) and follow the manufacture’s instruction.

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Contact and Support

For questions, suggestions, and technical supports, please contact us at E-mail: info@biogenous.cn.

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