



BACILLUS CEREUS ANTIMICROBIC SUPPLEMENT

Freeze-dried selective supplement

1 – INTENDED USE

Freeze-dried supplement for culture media to permit the selective isolation and enumeration of *Bacillus cereus*.

2 - COMPOSITION - VIAL CONTENTS FOR 500 mL OF MEDIUM

Polymyxin B sulphate 50.000 IU

3 - PRINCIPLE OF THE METHOD AND EXPLANATION OF THE PROCEDURE

The supplement contains polymyxin B in lyophilised form and is used as a selective additive for media for the isolation and counting of *Bacillus cereus*: MYP agar and PEMBA.

Polymyxin B is a mixture of polymyxins B1 and B2 cationic polypeptides with antimicrobial activity mainly against Gram negative bacteria. Polymyxin B exerts its antimicrobial effect through its cationic detergent action on cell membranes resulting in an alteration of cell membrane structure and cell death. On MYP and PEMBA media supplemented with polymyxin B, the growth of many not-target organisms is suppressed.

MYP agar is recommended by ISO 7932¹ ISO 21871², FDA-BAM³ and APHA⁴ for detection and enumeration of *B. cereus* in foods.

PEMBA is recommended by ISO 21871² for detection and enumeration of low number of *B. cereus* in foods

4 - DIRECTIONS

Dissolve the content of one vial of Bacillus Cereus Antimicrobial Supplement with 5 mL of sterile purified water, using aseptic conditions.

Use for the supplementation of the following basal media cooled to 44-47°C:

450 mL of Bacillus Cereus Agar Base (MYP) + 50 mL of Egg Yolk Emulsion,

470 mL of Bacillus Cereus Agar Base (PEMBA) + 25 mL of Egg Yolk Emulsion.

Refer to the Instructions for Use of culture media (REF 401111 and 401112) for the details of the method of preparation

5 – PHYSICAL CHARACTERISTICS

Appearance of lyophilised product short, dense, white pastille
Appearance of reconstituted product colourless, clear solution

6 - MATERIALS PROVIDED - PACKAGING

Product	Type	REF	Pack
Bacillus Cereus Antimicrobial Supplement	Freeze-dried supplement	4240001	10 vials, each for 500 mL of medium

7 - MATERIALS REQUIRED BUT NOT PROVIDED

Suitable basal media, autoclave, water bath, incubator and other laboratory equipment. Flasks, sterile plates and tubes, loops and sterile swabs for microbiology.

8 - SPECIMENS

Products intended for human consumption and the feeding of animals, and environmental samples from the area of food production and food handling

9 - TEST PROCEDURE

Refer to the Instructions for Use of culture media (REF 401111 and 401112) for inoculation, incubation and reading procedures.

10 - USER QUALITY CONTROL

All manufactured lots of the product are released for sale after the Quality Control has been performed to check the compliance with the specifications. However, the end user can perform its own Quality Control testing in accordance with the local applicable regulations, in compliance with accreditation requirements and the experience of the Laboratory. Refer to the Instructions for Use of culture media (REF 401111 and 401112) for suggested quality control strains.

11 - LIMITATIONS OF THE METHOD

Refer to the Instructions for Use of culture media (REF 401111 and 401112) for the limitations of the method.

12 - PRECAUTIONS AND WARNINGS

- Bacillus Cereus Antimicrobial Supplement is for microbiological control and for professional use only; it must be used by adequately trained and qualified laboratory personnel, observing approved biohazard precautions and aseptic techniques.
- Supplements containing antibiotics must be handled with appropriate protection. Consult the Safety Data Sheet before use.
- The supplement and the medium base shall be used in association according to the directions described above. Apply Good Manufacturing Practice in the preparation process of plated media.
- Bacillus Cereus Antimicrobial Supplement is sterilized by membrane filtration.
- Be careful when opening the metal ring to avoid injury.
- All laboratory specimens should be considered infectious.
- The laboratory area must be controlled to avoid contaminants such as medium powder and supplements or microbial agents.
- Sterilize all biohazard waste before disposal. Dispose the unused supplements and the sterilized media inoculated with samples or microbial strains in accordance with current local legislation.
- Do not use Bacillus Cereus Antimicrobial Supplement as active ingredients for pharmaceutical preparations or as production materials intended for human and animal consumption.
- The Certificates of Analysis and the Safety Data Sheet of the product are available on the website www.biolifeitaliana.it.
- The information provided in this document has been defined to the best of our knowledge and ability and represents a guideline for the proper use of the product but without obligation or liability. In all cases existing local laws, regulations and standard procedures





must be observed for the examination of samples collected from human and animal organic districts, for environmental samples and for products intended for human or animal consumption. Our information does not relieve our customers from their responsibility for checking the suitability of our product for the intended purpose.

13 - STORAGE CONDITIONS AND SHELF LIFE

Upon receipt, store the product in the original package at 2-8°C away from direct light. If properly stored, the product may be used up to the expiry date printed on the label; do not use beyond this date. Once the vial has been opened and the lyophilised product has been reconstituted, the resulting solution should be used immediately. Before use, examine the lyophilized and reconstituted product and discard if there are obvious signs of deterioration (e.g., contamination, atypical colour or other abnormal characteristics).

14 – REFERENCES

1. ISO 7932:2004/AMD 1:2020 Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of presumptive *Bacillus cereus* — Colony-count technique at 30 degrees C — Amendment 1: Inclusion of optional tests
2. ISO 21871:2005 - Microbiology of food and animal feeding stuffs -- Horizontal method for the determination of low numbers of presumptive *Bacillus cereus* -- Most probable number technique and detection method
3. U.S. Food and Drug Administration. Bacteriological Analytical Manual (BAM) Chapter 14: *Bacillus cereus*. Content current as of: 06/29/2021
4. APHA Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington D.C., 2015

TABLE OF APPLICABLE SYMBOLS

 or  Catalogue number	 Batch code	 Manufacturer	 This side up	 Fragile
 Temperature limitation	 Content sufficient for <n> tests	 Consult instructions for Use	 Use by	 Keep away from direct light

REVISION HISTORY

Version	Description of changes	Date
Revision 1	Updated layout and content	2024/09

Note: minor typographical, grammatical, and formatting changes are not included in the revision history.

