



Reference: 06-021LYO1

Scharlau Microbiology - Technical Data

Product: Polymyxin B Selective Supplement

Specification

Sterile selective supplement used for *Bacillus cereus* isolation and enumeration in food samples.

Presentation

	Packaging Details	Shelf Life	Storage
10 Freeze dried vials Vial with: 3 ± 0.1 g	23x60 mm glass vials, tag labelled, White plastic cap - 10 vials per box.	49 months	2-25 °C

Composition

Composition (IU/vial)

Polymyxin B sulfate..... 50.000 IU
Excipient (sufficient amount)

NOTE : Each vial is sufficient to supplement 500 ml of *Bacillus cereus* agar base.

Reconstitute the original freeze-dried vial
by adding
Sterile Distilled Water..... 6 ml

Description /Technique

Description:

This supplement is recommended for Bacillus Cereus Selective Agar, following PEMBA formulation and/or MYP one. These media permit an easily and readily detection of a small number of *Bacillus Cereus* in a presence of a large number of food contaminants : *Bacillus cereus* grows in very typical colonies and it allows a rapid macroscopic identification. PEMBA= blue colonies, surrounded by a clear zone of egg yolk
MYP= brilliant pink opaque colonies, with clear lecithinase halo

Technique:

Collect, dilute and prepare samples and volumes as required according to specifications, directives, official standard regulations and/or expected results.
Reconstitute the vial with the sterile diluent in aseptic conditions and add it to 450 ml of melted Agar base cooled to 50°C, previously supplemented also with 50-100 ml of sterile Egg Emulsion, according to ISO.
Do not overheat once supplemented.
Pour the complete medium into Petri dishes and, once solidified on a flat surface, spread the plates either by streaking or by spiral method.
Incubate the plates in aerobic atmosphere at 30-37 ± 1°C for 24-48h, according to ISO.
Incubation times longer than those mentioned above or different incubation temperatures may be required depending on the sample or the specifications.
After incubation, count all the colonies that have appeared onto the surface of the agar.
Presumptive isolation of *Bacillus cereus* must be confirmed by further microbiological and biochemical tests.



Reference: 06-021LYO1

Scharlau Microbiology - Technical Data

Product: Polymyxin B Selective Supplement

Quality control

Physical/Chemical control

Color : White-Gray

Microbiological control

Reconstitute 1 vial as indicated in COMPOSITION; shake and dissolve completely

Distribute the complete medium, cooled at 50°C, in plates

Analytical methodology according to ISO 11133:2014/A1:2018; A2:2020.

Aerobiosis. Incubation at 30 ± 1 °C, read after 24 ±3h - 44 ±4h

Microbiological control according to ISO 11133:2014/A1:2018.

Microorganism

Bacillus cereus ATCC® 11778, WDCM 00001

Escherichia coli ATCC® 25922, WDCM 00013

Bacillus subtilis ATCC® 6633, WDCM 00003

Growth

Good

Inhibited

Yellow colonies without halous

Sterility control

Add 5mL of the sample to 100 mL of TSB and to 100 mL Thioqlycollate.

Incubation 48 h at 30-35 °C and 48 h at 20-25 °C: NO GROWTH.

Check at 7 days after incubation in same conditions.

Bibliography

- ATLAS, R.M. & L.C. PARKS (1993) Handbook of Microbiological Media. CRC Press. London.
- CORRY, J.E.L., G.D.W. CURTIS & R.M. BAIRD. (2003) Handbook of Culture Media for Food Microbiology. Elsevier Sci. B.V. Amsterdam. The Netherlands.
- DOWNES, F.P. & K. ITO (2001) Compendium of methods for the microbiological examination of foods. 4th ed. APHA. Washington DC. USA.
- FIL-IDF 181:1998 Provisional Int. Standard. Dried Milk Products. Enumeration of *Bacillus cereus*.- Most probable number technique.
- ISO 7932 Standard (2004) 3rd ed. Microbiology of food and animal feeding stuffs. Horizontal method for the enumeration of presumptive *Bacillus cereus*. Colony count technique at 30°C.
- ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.
- ISO 21871 Standard (2006) 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.
- MOSSEL, D.A.A., KOOPMAN. M.J. & JONGERIUS, E. (1967) Enumeration of *Bacillus cereus* in foods. Appl. Microbiol. 15:650-653.
- PASCUAL ANDERSON, M^a.R^a (1992) Microbiología Alimentaria. Díaz de Santos, S.A. Madrid.