

Specification

Selective supplement for the isolation of *Burkholderia cepacia* in clinical, water, cosmetics and other samples.

Presentation

10 Freeze dried vials
Vial
with: 3 ± 0.1 g

Packaging Details

23x60 mm glass vials, tag labelled, White plastic cap -
10 vials per box.

Shelf Life

49 months

Storage

2-25 °C

Composition

Composition (g/vial):

Polymixin B Sulphate..... 300,000 IU
Gentamicin 5.00 mg
Vancomycin..... 1.25 mg.

Note: Each vial is sufficient to supplement
500 ml of medium Base for *Burkholderia cepacia*
spp.

Reconstitute the original
freeze-dried vial
by adding 1 vial with sterile
distilled water..... 6 ml

Description /Technique

Description:

BCSA selective supplement is added to *Burkholderia cepacia* Agar Base in order to obtain a complete medium suitable for the isolation of *Burkholderia cepacia* in clinical samples.

The detection of *Burkholderia cepacia* is important in water systems, particularly where the water is to be used for the preparation of pharmaceuticals and cosmetics. The organism is resistant to many commonly-used disinfectants. *Burkholderia cepacia* is an important opportunistic pathogen in urinary, abdominal, respiratory and other infections.

Technique:

Collect, dilute and prepare samples and volumes as required according to specifications, directives, official standard regulations and/or expected results.

Once solidified on a flat surface, spread the plate streaking methodology or by spiral method.

Reconstitute the vial with 6 ml of steril distilled water in aseptic conditions and add it to 500 ml of sterilized BCSA Agar base cooled to 50°C.

Do not overheat once supplemented.

Once solidified on a flat surface, spread the plates by streaking methodology or by spiral method.

Incubate the plates right side up aerobically at 33-37°C for 48-72h.

(Incubation times longer than those mentioned above or different incubation temperatures may be required depending on the sample, on the specifications, etc.)

After incubation, enumerate all the colonies that have appeared onto the surface of the agar.

Each laboratory must evaluate the results according to their specifications.

Precautions

For in vitro diagnostic use. Do not reuse. For professional use only.

Do not use the product if it shows evidence of microbial contamination, discoloration, drying, cracking or other signs of deterioration.

Quality control

Physical/Chemical control

Color : White-Gray

Microbiological control

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

Add 1 vial to 500 ml of medium base. DO NOT HEAT once supplemented.

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

Aerobiosis. Incubation at 30-35 °C. Reading at 24-48 until 72 h

According to ISO 11133 & USP Pharmacopeia

Microorganism

Burkholderia cepacia ATCC® 25416

Burkholderia cepacia ATCC® 25608

Staphylococcus aureus ATCC® 6538, WDCM 00032

Ps. aeruginosa ATCC® 9027, WDCM 00026

Burkholderia cenocepacia ATCC® BAA-245

Burkholderia multivorans ATCC® BAA-247

Growth

Good (≥50%) - Greenish–brown colonies with yellow halo

Good (≥50%) - Greenish–brown colonies with yellow halo

Inhibited

Inhibited

Good (≥50%). White colonies

Good (≥50%). White colonies surrounded by red zone

Sterility control

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

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

- COENYE, T., P. VANDAMME, J.R.W. Govan and J.J. LiPuma. 2001. Taxonomy and identification of the Burkholderia cepacia Complex. J. Clin. Microbiol. 39:10:3427-3436.
- ERAM, S.M., Q.B. NEJAD, G.R. Khatami, N. NAFISSI. 2004. Detection of Burkholderia cepacia Complex in Patients with cystic fibrosis. Tanaffos 3:9:47-52.
- GILLIGAN, P.H., P.A. GAGE, L.M. BRADSHAW, D.V. SCHIDLOW and LV DeCicco. 1985. Isolation medium for the recovery of Pseudomonas cepacia from respiratory Secretions of Patients with cystic fibrosis. J. Clin. Microbiol. 22:5-8.
- HENRY, d.Ä., M.E. CAMPBELL, J.J. LiPuma and D.P. SPEERT. 1997. Identification of Burkholderia cepacia Isolates from Patients with cystic fibrosis and use of a simple new selective medium. J. Clin. 35:3:614-619 Microbiol.
- HENRY, d.Ä., M.E. CAMPBELL, C. McGimpsey, A. CLARKE, L. Louden, J.L. BURNS, M.H. ROE, P. VANDAMME and D.P. SPEERT. 1999. Comparison of isolation media for recovery from Burkholderia cepacia Complex Respiratory Secretions of Patients with cystic fibrosis. J. Clin. Microbiol. 37:4:1004-1007
- ISLES, A., I. MACLUSKY, M. COREY, R. GOLD, C. Prober, P. FLEMING, and H. LEVISON. 1984. Pseudomonas cepacia in cystic fibrosis Infection: An Emerging problem. J. Pediatr. 104:206-210.
- MILLER, JJ, 1996.A guide to Specimen Management in Clinical Microbiology. ASM Press., Washington D.C.
- WELCH, DF, M.J. Muszynski, C.H: PAI, M.J. MARCON, M.M. Hribar, P.H. Gilligan, J.M. Matsen, P.G. Ahlin, B.C.
- HILMAN and SA CHARTRAND. 1987. Selective and differential medium for recovery from the Pseudomonas cepacia respiratory tracts of Patients with cystic fibrosis. J. Clin. Microbiol. 25:1730-1734.
- ISO Standard 11133:2014 Microbiology of food, animal feed and water. Preparation, production, storage, and performance testing of culture media.
- USP 42 - NF 37 1S (2019) Chapter <60> Microbiological examination of nonsterile products: Test for *Burkholderia cepacia* complex. USP Corp. Inc. Rockville. MD. USA.