

Specification

Solid medium for the cultivation and enumeration of clostridia and other anaerobic bacteria.

Presentation

| | Packaging Details | Shelf Life | Storage |
|---|--|------------|---------|
| 20 Tubes Tube 16 x 113 mm with: 10 ± 0.3 ml | 1 box with 20 tubes, 16x113 mm glass tubes, ink labelled and metal-Non injectable cap. | 12 months | 8-25 °C |

Composition

| Composition (g/l): | |
|--------------------------|------|
| Peptone from casein..... | 10.0 |
| Yeast extract..... | 3.00 |
| Meat extract..... | 10.0 |
| D(+) Glucose..... | 5.00 |
| Sodium chloride..... | 5.00 |
| Sodium acetate..... | 3.00 |
| Starch..... | 1.00 |
| Cysteine..... | 0.50 |
| Agar..... | 15.0 |

Description /Technique

Description

Reinforced Clostridial Agar was originally described by Hirsch and Grinstead to enhance the growth of small inoculums and achieve a higher clostridial count. Later, Barnes and Ingram used the medium to develop vegetative cells in assays of *Clostridium perfringens*. Barnes also used this medium to count clostridia in food; moreover other authors used this medium in enumeration assays of *C. thermoscharolyticum* in sugar, the study of intestinal flora, and for bacterial counts in human or animal faeces, etc.

Technique recommended use:

Material to be examined is ground in a grinder or Stomacher®, and a dilution bank is prepared. From each of the dilutions, take an aliquot and add to plates or tubes, pour the molten medium at 50°C over the sample. Let it solidify. Incubate for a time and temperature suitable to the microorganism. An anaerobic environment can be achieved in tubes by covering with oil immediately after the Reinforced Clostridial Medium is solidified. If plates are used, they must be incubated in an anaerobic atmosphere.

Note: The solid mediums can be melted in different ways: autoclave, bath and, if the customer considers appropriate, also the microwave. Whenever the microwave option is chosen, it is necessary to take certain safety measures to avoid breaking of the containers, such as loosening the screw cap and putting the bottle or tube in a water bath in the microwave. The fusion temperature and time will depend on the shape of the container, the volume of medium and the heat source. Avoid overheating as both the heating periods.

Quality control

Physical/Chemical control

Color : Yellowish-brown pH: 6.8 ± 0.2 at 25°C

Microbiological control

Growth Promotion Test 50-100 CFU according to harmonized Pharmacopoeia monographs (EP) and test methods & ISO 11133:2014/A1:2018
Analytical methodology according to ISO 11133:2014/A1:2018; A2:2020.

Anaerobiosi. Incubation at 30 - 35°C reading at 48 h

Microorganism

Clostridium perfringens ATCC® 13124, WDCM 00007, NCTC® 8237
Clostridium sporogenes ATCC® 19404, WDCM 00008
Clostridium perfringens ATCC® 10543, WDCM 00174

Growth

Good - Gas Positive
Good - Gas D
Good - Gas Positive

Sterility control

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

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