Brucella Agar Base w/ 1% Dextrose

M1638

Intended Use:

Recommended for the cultivation and isolation of *Brucella* species.

Composition**

Ingredients	g/ L
Peptone	10.000
HM extract #	5.000
Dextrose (Glucose)	10.000
Sodium chloride	5.000
Agar	15.000
Final pH (at 25°C)	7.5±0.2

**Formula adjusted, standardized to suit performance parameters
Equivalent to Meat extract

Directions

Suspend 22.5 grams in 500 ml purified/distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C and aseptically add sterile 5% (v/v) inactivated Horse serum RM1239 (Inactivate RM1239 by heating at 56°C for 30 minutes) and rehydrated contents of one vial of NPBCVN Selective Supplement (FD005). Mix well and pour into sterile Petri plates.

Principle And Interpretation

Brucellosis is a zoonotic disease with a domestic animal reservoir. It is an occupational disease of veterinarians, microbiologists, farmers etc. The route of infections is genital, nasopharyngeal, gastrointestinal, conjunctival, respiratory and through abraded skin (1,2). Brucellosis in humans has a variable incubation period, an insidious or abrupt onset and no pathognomic symptoms or signs. Brucella Agar was designed for cultivating *Brucella* species from diagnostic specimens. With the incorporation of blood or other nutritious substances, it facilitates the cultivation of variety of fastidious anaerobic organisms (3). However, Brucella Medium is supplemented with antibiotics to prevent overgrowth of other accompanying organisms. Brucella Agar Base w/ 1.0% Dextrose was originally developed by Jones and Morgan (4) for preparations of serum-dextrose-antibiotic medium used for the isolation and cultivation of *Brucella* species.

The medium contains peptone and HM extract, which facilitates cultivation of variety of fastidious anaerobic organisms; by providing essential nutrients. Dextrose serves as source of energy. Addition of antibiotics (as FD) makes the medium highly selective for *Brucella* species. Ethyl violet and circulin, which were recommended initially, are no longer used (5).

Type of specimen

Clinical samples : vaginal secretions ; Dairy products

Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (6,7). For dairy samples, follow appropriate techniques for sample collection and processing as per guidelines (8,9). After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

In Vitro diagnostic use. For professional use only. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations

1. Individual organisms differ in their growth requirement and may show variable growth patterns on the medium.
2. All presumptive anaerobic organisms must be identified by confirmatory test.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance
Cream to yellow homogeneous free flowing powder
Gelling
Firm, comparable with 1.5% Agar gel
Colour and Clarity of prepared medium
Light yellow coloured, clear to slightly opalescent gel forms in Petri plates
Reaction
Reaction of 4.5% w/v aqeuous solution at 25°C. pH : 7.5±0.2
pH
7.30-7.70
Cultural Response
Cultural characteristics observed in presence of 10% Carbon dioxide (CO_2) atmosphere with added 5% sterile inactivated horse serum and NPBCVN Selective Supplement (FD005),after an incubation at 35-37°C for 24-48 hours

Organism	Growth
Brucella melitensis ATCC 4309	luxuriant
Brucella suis ATCC 4314	luxuriant
Escherichia coli ATCC 25922 (00013*)	inhibited
Staphylococcus aureus subsp. *aureus* ATCC 25923 (00034*)	inhibited

Key : *Corresponding WDCM numbers.

Storage and Shelf Life

Store below 10-30°C in a tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition Seal the container tightly after use. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (6,7).

Reference

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6.Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
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9.Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed.,APHA Inc., Washington, D.C.

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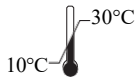
IVD ***In vitro*** **diagnostic medical device**



Storage temperature

EC REP CEpartner4U, Esdoornlaan 13,
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www.cepartner4u.eu

CE Marking

Do not use if package is damaged

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