



Brucella Broth Base

M348

Intended Use:

Brucella Broth Base with supplement is recommended for enrichment and cultivation of *Brucella* or *Campylobacter* species from clinical and nonclinical specimens.

Composition**

Ingredients	Gms / Litre
Tryptone	10.000
Peptone	10.000
Yeast extract	2.000
Dextrose (Glucose)	1.000
Sodium chloride	5.000
Sodium bisulphite	0.100
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 14.05 grams in 500 ml distilled water. Heat if necessary 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 by heating at 56°C for 30 minutes) and add rehydrated contents of one vial of Brucella Selective Supplement (FD005). Mix well before pouring into sterile tubes.

For *Campylobacter* : Aseptically add sterile rehydrated contents of 1 vial of Campylobacter Supplement I (FD006)(Blaser Wang) or Campylobacter Supplement II (FD007) (Butzler) or Campylobacter Supplement III (FD008) (Skirrow) and Campylobacter Growth Supplement (FD009) to 500 ml of sterile medium.

Principle And Interpretation

Brucella Broth Base is formulated so as to support luxuriant growth of fastidious bacteria like *Brucella* species (1). *Brucella* is an intracellular parasite that causes epizootic abortions in animals and septicemic febrile illness or localized infections of bone, tissue or organ systems in humans (2, 3). *Brucella* species are highly fastidious and therefore require a nutrient rich medium to be able to grow. Also, *Brucella* species are highly infective and so extreme care should be taken while handling. The basal medium (with addition of Campylobacter Supplements) can be also used for the isolation of *Campylobacter* (4).

Peptone and casein enzymic hydrolysate provide nitrogenous and carbonaceous compounds, long chain amino acids, vitamins and other nutrients to the organisms. Yeast extract also supply some nitrogenous nutrients but mainly it serves as a source of Vitamin B complex. Dextrose serves as an energy source. It can be enriched with 5% v/v sterile defibrinated horse blood. For selective isolation of *Brucella* species, antibiotic mixtures are incorporated into the base (5,6,7). When non-selective medium is required, Brucella Broth Base may be employed with the addition of serum only (i.e. without antibiotics). It is suggested that half the tubes to be incubated in the normal atmosphere, and half in a 10% CO₂ enriched atmosphere. *Brucella* species are highly infectious and so extreme care should be taken while handling.

Type of specimen

Clinical: faeces

Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (8,9).

Warning and Precautions

Please refer disclaimer Overleaf.

In Vitro diagnostic 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

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

Colour and Clarity of prepared medium

Light amber coloured, clear solution in tubes

Reaction

Reaction of 2.81% w/v aqueous solution at 25°C. pH : 7.0±0.2

pH

6.80-7.20

Cultural Response

Cultural characteristics observed under 10% Carbon dioxide (CO₂) with added 5%v/v inactivated horse serum (RM1239) and Brucella Selective Supplement (FD005), after an incubation at 35-37°C for 24-72 hours

Cultural Response

Organism	Growth	Inoculum (CFU)
Cultural Response		
<i>Brucella melitensis</i> ATCC 4309	luxuriant	50-100
<i>Escherichia coli</i> ATCC 25922 (00013*)	inhibited	≥10 ³
<i>Staphylococcus aureus</i> ATCC 25923 (00034*)	inhibited	≥10 ³

Key : *Corresponding WDCM numbers.

Storage and Shelf Life

Store below 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. Use before expiry date on the label. 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 (8,9).

Reference

1. Finegold et al (Ed.), 1990, Bailey and Scotts Diagnostic Microbiology, 8th ed., The C.V. Mosby Co., St. Louis.
2. Moyer N. P., and Holcomb L. A., Laboratory Diagnosis and Infectious Diseases: Principles and Practice, Vol. I, Springer-Verlag, New York
3. Smith L. D., and Fient T. A., 1990, Crit. Rev. Microbiol., 17 : 209-230
4. Murray P. R., Baron E. J., Jorgensen J. H., Tenover F. C., Tenover P. C., (Eds.), 8th Ed., 2003, Manual of Clinical Microbiology, ASM, Washington, D.C.
5. Jones L. M. and Brinley M.W.J., 1958, Bull. Wld. Hlth. Org., 19:200.

6. Kuzdas C.D., and Morse E.V., 1953, J. Bact., 66 (4):502.
7. Renoux G., 1954, Ann. Inst. Pasteur, 87 (3):325.
8. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
9. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

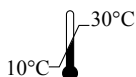
Revision : 03/ 2018



In vitro diagnostic medical device



CE Marking



Storage temperature



Do not use if package is damaged



HiMedia Laboratories Pvt. Limited,
23 Vadhani Industrial Estate,
LBS Marg, Mumbai-86, MS, India



CE Partner 4U, Esdoornlaan 13, 3951
DB Maarn The Netherlands,
www.cepartner4u.eu

Disclaimer :

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.