Technical Information

Brucella Agar Base, Modified

Product Code: DM 1074A

Application: Brucella Agar Base, Modified is recommended for cultivation of *Campylobacter* species.

Composition**

Ingredients	Gms / Litre
Casein enzymic hydrolysate	15.000
Peptic digest of animal tissue	5.000
Yeast extract	2.000
Dextrose	1.000
Sodium chloride	5.000
Sodium citrate	1.000
Sodium bisulphite	0.100
Agar	15.000
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

This medium is formulated so as to support luxuriant growth of fastidious bacteria like *Campylobacter* and *Brucella* species [1]. Peptic digest of animal tissue, casein enzymic hydrolysate provide organic nitrogen to the organisms. Yeast extract also supply some nitrogenous nutrients but mainly it acts 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 [2,3,4]. Farrel and Robinson formulated a highly selective antibiotic medium [5]. Ethyl violet and Circulin, which were recommended originally, are no longer used [6]. 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 in case of broth medium that half the tubes be incubated in the normal atmosphere, and half in a 10% CO_2 enriched atmosphere. *Brucella* species are highly infectious and so extreme biosafety steps should be taken while handling. All presumptive anaerobic organisms must be further confirmed by the tests to confirms the diagnosis.

Methodology

Suspend 22 grams of powder media in 500 ml distilled water. Shake well &Heat 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 and rehydrated contents of one vial of Campylobacter Supplement III (Skirrow) (MS2008) and sterile reconstituted contents of one vial of Campylobacter Growth Supplement (MS2009). Mix well before pouring into sterile petri plates. For cultivation of *Brucella* Species add rehydrate contents of one vial of *Brucella* Selective Supplement (MS2005).

Quality Control

Physical Appearance

Cream to yellow coloured homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

Yellow coloured clear to slightly opalescent gel or solution forms in petri plates

Reaction

Reaction of 4.3% w/v aqueous solution at 25°C. pH : 7.0±0.2

pH Range: 6.8-7.2

Cultural Response/Characteristics

DM 1074A: Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours under 10% CO_2 with added sterile 5% v/v inactivated horse serum & growth supplements.

Organism	Inoculum (CFU)	Growth	Recovery
Campylobacter jejuni ATCC 29428	50-100	luxuriantgood-luxuriant	>=50%
Campylobacter coli ATCC 33559	50-100	good-luxuriant	>=50%
Escherichia coli ATCC 25922	>=10^3	inhibited	0%
Staphylococcus aureus ATCC 25923	>=10^3	inhibited	0%

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.
Prepared Media: 2-8^0 in sealable plastic bags for 2-5 days.

Further Reading

1. Finegold et al (Ed.), 1990, Bailey and Scotts Diagnostic Microbiology, 8th ed., The C.V. Mosby Co., St. Louis.
2. Jones L. M. and Brinley M.W.J., 1958, Bull. Wld. Hlth. Org., 19:200.
3. Kuzdas C.D., and Morse E.V., 1953, J. Bact., 66 (4):502.
4. Renoux G., 1954, Ann. Inst. Pasteur, 87 (3):325.
5. Farrell I.D. and Robinson L., 1972, J.Appl. Bact., 35:625.
6. Alton G.G. and Jones L.M., 1967, Lab Technique in Brucellosis WHO, Geneva.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conforms solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate.
- **Central Drug House 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 diagnostic or therapeutic use but for laboratory, research or further manufacturing of diagnostic reagents extra.
- 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.
- Do not use the products if it fails to meet specificatons for identity and performens parameters.