Aeromonas Selective Agar (BSIBG)

M1890

Intended Use:

Recommended for the selective isolation of *Aeromonas* species from food and clinical samples.

Composition**

Ingredients	g / L
HM peptone B #	5.000
Proteose peptone	5.000
D-Xylose	10.000
Sodium thiosulfate	5.440
Brilliant green	0.005
Neutral red	0.025
Bile salt	8.500
Irgasan	0.005
Agar	11.500
Final pH (at 25°C)	7.0±0.2

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

Directions

Suspend 45.48 grams in 1000 ml purified / distilled water. Heat to boiling to dissolve the medium completely. **DO NOT AUTOCLAVE**. Cool to 45-50°C. Mix well and pour into sterile Petri plates.

Principle And Interpretation

Aeromonas species occur widely in soil and water where these species cause disease in fish and amphibians. Also found in untreated and chlorinated drinking water, raw food and raw milk (1,2). It is observed that the major cause of gastrointestinal infections by *Aeromonas* species (1,3) is because of ingesting infected water (4,5).

The media was originally formulated for the selective isolation of *Aeromonas* species from faeces (6). Proteose peptone and HM peptone B provide essential nitrogenous compounds. D-xylose is source of carbon and energy. Gram positive organisms are inhibited by bile salts and brilliant green and gram negative organisms which possess a type A nitratase are inhibited by irgasan. Organisms which survive are differentiated by their ability to ferment xylose. *Aeromonas* species do not ferment xylose and oxidase test can be performed on colonies that do not produce acid. The current formulation of Aeromonas Selective Agar (BSIBG Agar) is recommended for the isolation of *Aeromonas* species from food which is better than that of ampicillin containing media.

Type of specimen

Clinical sample- Faeces ; Food and dairy samples, Water samples

Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (7,8).

For food and dairy samples, follow appropriate techniques for sample collection and processing as per guidelines (9,10,11). For water samples, follow appropriate techniques for sample collection and processing as per guidelines (12).

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. Some strains may show poor growth due to nutritional variations.
2. Further biochemical and serological tests must be performed for confirmation

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

Light yellow to pink homogeneous free flowing powder

Gelling

Firm, comparable with 1.15% Agar gel.

Colour and Clarity of prepared medium

Reddish orange coloured clear to slightly opalescent gel forms in Petri plates.

Reaction

Reaction of 4.55% w/v aqueous solution at 25°C. pH : 7.0±0.2

pH

6.80-7.20

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth	Recovery	Colony characteristics
Aeromonas hydrophila ATCC 7966 (00063*)	50-100	luxuriant	>=50%	transluscent colonies
Escherichia coli ATCC 25922 (00013*)	>=10^4	inhibited	0%	
Proteus mirabilis ATCC 25933	>=10^4	inhibited	0%	

Key : (*) Corresponding WDCM numbers.

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 20-30°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 (7,8).

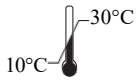
Reference

1.Buchanan R. L. and Palumb S. A., 1985, J. Food Safety, 7:15.
2.Steering Group on the Microbiological Safety of Foods (SGMSF) in Methods for Use in Microbiological Superveillance, 1994, MAFF, Ergon House, London SWIP3TR.
3.Burke V. et al 1984, Appl. Environ. Microbiol., 48:361.
4.George W. L., 1987, Clin. Microbiol., Newsletter 9, 121.
5.Holmberg S. D., et al, 1986, Ann. Intern. Med., 105:683.
6.Hunt,G.H., Price, E.H., Patel, U., Messenger, L., Stow, P. and Salter, P. (1987), Isolation of Aeromonas species from faecal specimens. J. Clin. Pathol. 40, 1382-1384.
7.Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
8.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.
9.American Public Health Association, Standard Methods for the Examination of Dairy Products, 1978, 14th Ed., Washington D.C.
10.Salfinger Y., and Tortorello M.L.2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
11.Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.
12.Lipps WC, Braun-Howland EB, Baxter TE,eds. Standard methods for the Examination of Water and Wastewater, 24th ed. Washington DC:APHA Press; 2023.

Revision : 05/2024

HiMedia Laboratories Pvt. Limited,
Plot No.C-40, Road No.21Y,
MIDC, Wagle Industrial Area,
Thane (W) -400604, MS, India

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



Storage temperature

EC REP

CEpartner4U, Esdoornlaan 13,
3951DB Maarn, NL
www.cepartner4u.eu

CE Marking

Do not use if package is damaged

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.