



Aeromonas Selective Agar (BSIBG Agar)

M1890

Aeromonas Selective Agar is recommended for the selective isolation of *Aeromonas* species from food.

Composition**

Ingredients	Gms / Litre
Beef extract	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

Directions

Suspend 45.48 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. DO NOT AUTOCLAVE. 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 (2, 3). It is observed that the major cause of gastrointestinal infections by *Aeromonas* species (3, 4) is because of ingesting infected water (5, 6).

The media was originally formulated for the selective isolation of *Aeromonas* species from faeces (1). Proteose peptone and beef extract 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.

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.

Cultural Response

Organism	Inoculum (CFU)	Growth	Recovery	Colony characteristics
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Cultural Response

<i>Aeromonas hydrophila</i> ATCC 7966	50-100	luxuriant	$\geq 50\%$	translucent colonies
<i>Escherichia coli</i> ATCC 25922	$\geq 10^3$	inhibited	0%	
<i>Proteus mirabilis</i> ATCC 25933	$\geq 10^3$	inhibited	0%	

Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.

Reference

- 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.
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