



M-Aeromonas Selective Agar Base (Havelaar)

M1283

M-Aeromonas Selective Agar Base (Havelaar) is used for the detection of *Aeromonas* species in water and other liquid samples by membrane filter technique.

Composition**

Ingredients	Gms / Litre
Tryptose	5.000
Yeast extract	2.000
Dextrin	11.400
Sodium chloride	3.000
Potassium chloride	2.000
Magnesium sulphate	0.100
Ferric chloride	0.060
Sodium deoxycholate	0.100
Bromothymol blue	0.080
Agar	13.000
Final pH (at 25°C)	8.0±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 36.74 grams in 1000 ml 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 rehydrated contents of 1 vial of Ampicillin Supplement (FD082). Mix well and pour into sterile Petri plates.

Principle And Interpretation

Aeromonas species are natural inhabitants of aquatic environments worldwide. Procedures to isolate, enumerate and identify *Aeromonas* from water and wastewater sources is of significance, because of their role in causing human and animal disease, their ability to colonize treatment plants and distribution systems and their presence and distribution as an alternative indicator of the trophic state of water (1).

M-Aeromonas Selective Agar Base is recommended for the detection of *Aeromonas* species in water sample by the membrane filter technique. This medium was formulated by Havelaar et al (2, 3) and also complies with the recommendations of USEPA Approved Method 1605 (2001) which describes Ampicillin Dextrin Agar with Vancomycin (4). *Aeromonas* utilize Dextrin in the medium to form acids which are detected by the pH indicator bromothymol blue by changing the colour from blue to yellow.

Tryptose and yeast extract provide nitrogenous compounds along with other essential nutrients for growth of *Aeromonas* . Sodium chloride maintains the osmotic balance of the medium. *Aeromonas* forms acid from dextrin, which is indicated by change in colour from blue to yellow. Selectivity of the medium is increased by the addition of ampicillin. The effectiveness of ampicillin as a selective agent has been reported by several workers (5-8).

Membrane filters through which water samples have been passed are aseptically placed on M-Aeromonas Selective Agar Base plates. After an incubation at 35-37°C for 24 hours *Aeromonas* species appear as large, yellow colonies with a purple periphery.

Quality Control

Appearance

Light yellow to greenish yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.3% Agar gel.

Colour and Clarity of prepared medium

Dark green coloured clear to slightly opalescent gel forms in Petri plates

Reaction

Reaction of 3.67% w/v aqueous solution at 25°C. pH : 8.0±0.2

pH

7.80-8.20

Cultural Response

M1283: Cultural characteristics observed after an incubation at 35-37°C for 24 hours with added Ampicillin Supplement (FD082).

Organism	Inoculum (CFU)	Growth
Cultural Response <i>Aeromonas hydrophila</i> ATCC 7966	50-100	good-luxuriant
<i>Escherichia coli</i> ATCC 25922	>=10 ³	inhibited
<i>Staphylococcus aureus</i> ATCC 25923	>=10 ³	inhibited

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

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