

Aeromonas Supplement

Cat. 6052

Selective supplement for the isolation of *Aeromonas hydrophila*.

Practical information

| Applications | Categories |
|---------------------|------------|
| Selective isolation | Aeromonas |

Industry: Water

Principles and uses

Aeromonas Agar Base (RYAN) is based on the formulation of Ryan. It is a modification of the XLD Medium that has been designed to improve the count and isolation of *Aeromonas* in clinical and environmental samples. The medium is better than other media in the detection of *Aeromonas* in water, bottled water and food (meat, fish, etc).

Proteose peptone provides nitrogen, vitamins, minerals and amino acids essential for growth. L-Lysine and L-Arginine provide nitrogen, sulfur and trace elements. Yeast extract is a source of vitamins, particularly the B-group. Inositol, lactose, sorbitol, and xylose are the carbohydrate substrates. Sodium thiosulfate provides sulphur, and ferric ammonium citrate is the indicator for H₂S production. H₂S positive colonies have a black center. The mixed indicators bromothymol blue and thymol blue change their color to yellow when acid is formed. Sodium chloride supplies essential electrolytes for transport and osmotic balance and Bile Salts are inhibitors of Gram-positive organisms.

Aeromonas are aquatic organisms, fresh water bacteria that were identified during the last century as responsible for infectious processes in aquatic animals: amphibians, reptilian, fish, snails, and others. *Aeromonas* also cause intestinal tract diseases. Infections are contracted frequently due to direct exposure to the water in which these microorganisms live. This medium is also used for clinical diagnoses.

Formula per vial

| | |
|------------------------|-----|
| Sodium ampicillin (mg) | 2,5 |
|------------------------|-----|

Preparation

Aseptically reconstitute 1 vial with 5 ml of sterile distilled water. Mix gently until complete dissolution and aseptically add to 500 ml of *Aeromonas* Agar Base (RYAN) (Cat. 1370), autoclaved and cooled to 50 °C. Mix well and distribute into sterile containers.

Instructions for use

Membrane filtration method:

- Filter an appropriate volume of the sample through the membrane.
- Place the membrane on the surface of the agar plate, avoiding the formation of air bubbles.
- Invert the plates and incubate at 30-35 °C for 24 hours.

Quality control

| Solubility | Appearance | Color of the dehydrated medium | Color of the prepared medium | Final pH (25°C) |
|------------|--------------------|--------------------------------|------------------------------|-----------------|
| w/o rests | Lyophilized tablet | N/A | Transparent | N/A |

Microbiological test

Incubation conditions: (30-35 °C / 24 h).

| Microrganisms | Specification | Characteristic reaction |
|------------------------------------|---------------|-------------------------|
| <i>Escherichia coli</i> ATCC 25922 | Inhibition | |

Pseudomonas aeruginosa ATCC 27853
Aeromonas hydrophila ATCC 7966
Pseudomonas aeruginosa ATCC 9027

Good growth
Good growth
Good growth

Blue-green colonies
Green colonies with a black center
Blue green colonies

Storage

Temp. Min.:2 °C
Temp. Max.:8 °C

Bibliography

Ryan N. (1985) Personal communication.
Rogol M., Sechter I., Grinberg L., Gerichter Ch. B. (1992) J. Med. Microbiol. 12. 229-231.