AEROMONAS MEDIUM

- For in vitro use only - Catalogue No. PA25

Our Aeromonas Medium is a selective medium used for the isolation of *Aeromonas* species from a variety of samples including clinical specimens.

Aeromonas hydrophilia has been increasingly implicated in gastrointestinal disease; Adder et al. found *A. hydrophilia* only in patients with diarrhea and none in the control group. *Aeromonas*-associated gastroenteritis affects both children and adults making their isolation and detection critical.

Our Aeromonas Medium is based on the work of Ryan who modified XLD Agar so that it would support the growth of *Aeromonas* and *Plesiomonas* species. The addition of ampicillin to the medium makes it highly selective for *Aeromonas* as reported by numerous researchers. It should be noted that some strains of *Aeromonas* are susceptible to ampicillin, and is a key feature of *Aeromonas trota*.

Formula per Litre of Medium

Proteose peptone	5.0 g
Yeast Extract	3.0 g
L-Lysine HCl	3.5 g
L-Arginine HCl	2.0 g
Inositol	2.5 g
Lactose	1.5 g
Sorbitol	3.0 g
Xylose	3.75 g
Bile Salts No. 3	3.0 g
Sodium Thiosulfate	10.7 g
Sodium Chloride	5.0 g
Ferric Ammonium Citrate	0.8 g
Bromothymol Blue	0.04 g
Thymol Blue	0.04 g
Agar	12.5 g
Ampicillin	5.0 mg

pH 8.0 ± 0.2

Recommended Procedure

1. Allow medium to adjust to room temperature prior to inoculation.
2. Using a direct inoculum from the specimen, perform a four-quadrant streak to obtain well-isolated colonies.
3. Incubate aerobically at 35°C.
4. Examine plates after 24 hours for typical colonies and confirm as *Aeromonas* spp.

Interpretation of Results

Aeromonas species will typically appear as dark green colonies with dark centers. Their size is typically between 0.5 and 1.5-mm.

Pseudomonas species can also grow on this medium and appear as bluish-gray, translucent colonies. They are generally smaller in size, and range from pinpoint to 0.25-mm.

Typical colonies should be confirmed as presumptive *Aeromonas* spp. by performing an oxidase test and inoculating into Hugh & Leifsons O/F medium. *Aeromonas* spp. will give a positive oxidase reaction and demonstrate both oxidative and fermentative metabolism. *Pseudomonas* spp. will also be oxidase positive, but do not possess fermentative metabolism.

Additional biochemical and serological test should be performed on isolated colonies from pure culture in order to complete identification.

- *Ampicillin-susceptible Aeromonas strains such as A. trota may be inhibited on this medium*

- *Pseudomonas species may grow on this medium but can be ruled out by colony morphology alone*

Quality Control

After checking for correct pH, colour, depth, and sterility, the following organisms are used to determine the growth performance of the completed medium.

Organism	Expected Result
Aeromonas hydrophilia ATCC 7966	Growth, green colonies
Escherichia coli ATCC 25922	Partial inhibition

Storage and Shelf Life

Our Aeromonas Medium should be stored at 4°C to 8°C and protected from light. The medium side should be uppermost to prevent excessive accumulation of moisture on the agar surface. Under these conditions the medium has a shelf life of 4 weeks from the date of manufacture.

References

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4. Carnahan AM, Chakraborty T, Fanning GR, Verma D, Ali A, Janda JM, Joseph SW. Aeromonas trota, sp. Nov., an ampicillin-susceptible species isolated from clinical specimens. J Clin Microbiol 1992, 29:1206-10.
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