

## TM 1074 - SA AGAR BASE (as per APHA)

### INTENDED USE

For isolation, cultivation and differentiation of *Aeromonas hydrophila* from foods by starch hydrolysis.

### PRODUCT SUMMARY AND EXPLANATION

The isolation of *Aeromonas hydrophila* group has been extensively studied by clinical microbiologists and many media have been developed for their isolation. It was found that clinical media were not suitable because of lower recovery percentage and difficulties in distinguishing the *A. hydrophila* group from the background microflora.

To overcome these difficulties, Starch Ampicillin (SA) Agar was formulated as described by Palumbo et al and is a slight modification of SA Agar recommended by APHA for isolation and cultivation of *A. hydrophila* from foods. Very few bacteria in food are capable of hydrolyzing starch. Starch hydrolysis is a differentiating character for *A. hydrophila*.

SA Agar is also used for the quantitative detection of *Aeromonas hydrophila*, *A. sobria* and *A. caviae* in fresh foods of animal origin and fresh vegetable. *A. sobria* and *A. caviae* are further identified by biochemical tests. Starch hydrolysis is determined by flooding 5 ml of Lugol's Iodine solution per plate.

### COMPOSITION

Ingredients	Gms / Ltr
Casein enzymic hydrolysate	10.000
Sodium chloride	5.000
Starch, soluble	1.000
Phenol red	0.018
Agar	15.000

### PRINCIPLE

Casein enzymic hydrolysate in the medium provides essential growth nutrients. Sodium chloride maintains osmotic equilibrium. Ampicillin suppresses the contaminating microflora. Phenol red is the pH indicator.

### INSTRUCTION FOR USE

- Dissolve 31.02 grams in 1000 ml distilled water
- Heat to boiling to dissolve the medium completely
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes
- Cool to 45-50°C. Aseptically add rehydrated contents of 1 vial of Ampicillin Supplement
- Mix well before pouring into sterile Petri plates.

### QUALITY CONTROL SPECIFICATIONS

- Appearance of Powder** : Light yellow to pink homogeneous free flowing powder .  
**Appearance of prepared medium** : Red coloured clear to slightly opalescent gel forms in Petri plates .  
**pH (at 25°C)** : 7.4±0.2

### INTERPRETATION

Cultural characteristics observed after an incubation with added Ampicillin Supplement.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Color of the colony	Incubation Temperature	Incubation Period
<i>Aeromonas hydrophila</i>	7966	50-100	Luxuriant	>=70%	Positive, clearing around the colony	30°C	24-48 Hours
<i>Escherichia coli</i>	25922	50-100	Poor-fair	10-30%	Negative, no clearing	30°C	24-48 Hours
<i>Staphylococcus aureus</i>	25923	>=10 <sup>3</sup>	Inhibited	0%	-	30°C	24-48 Hours

**PACKAGING:**

In pack size of 500 gm bottles.

**STORAGE**

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.













**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

**DISPOSAL**

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

**REFERENCES**

1. Polumbo S. A., Maxino F., Williams A. C., Buchanan R. L., Thayer D. W., 1985, Appl. Environ. Microbiol., 50:1027.
2. Downes F. P. and Ito K., (Ed.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed. American Public Health Association, Washington, D.C.
3. Murray P. R., Baron J. H., Pfaller M. A., Jorgensen J. H. and Tenover F. C., (Ed.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C

 GMP Good Manufacturing Practices Certified	 IVD For In Vitro Diagnostic Use	 QTY. Quantity	 LOT/ B. NO. Lot / Batch Number	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 EC REP Authorized Representative	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

**\*For Lab Use Only**  
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