TM 1136 – AEROMONAS ISOLATION MEDIUM BASE

INTENDED USE

For selective & differential isolation of *Aeromonas hydrophila* from clinical & environmental samples.

PRODUCT SUMMARY AND EXPLANATION

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. It is observed that the major cause of gastrointestinal infections by *Aeromonas* species is because of ingesting infected water. This medium therefore, may be considered as a useful diagnostic aid for investigating diarrhoeal disease.

Aeromonas medium was found to be superior over some other formulae for detection of *Aeromonas* species in tap water, bottled water and foods including meat, poultry, fish and seafood. Aeromonas Isolation Medium is based on the formulation of Ryan. It is a modification of XLD Medium, which supports the growth of *Aeromonas*, *Plesiomonas*, *Proteus*, as well as *Enterobacteriaceae* so the medium is used as universal medium in the investigation of enteric disease. The 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. It was noted that the recovery of *Aeromonas* species was very low from fresh foods of animal origin when cultivated on clinical media. Also difficulties were encountered in distinguishing the *Aeromonas hydrophila* group from the background microflora. Polumbo et.al formulated Starch Ampicillin Agar with starch hydrolysis as the differential trait and ampicillin to suppress the background microflora.

COMPOSITION

Ingredients	Gms / Ltr
Peptone, special	5.000
Yeast extract	3.000
L-Lysine hydrochloride	3.500
L-Arginine hydrochloride	2.000
Inositol	2.500
Lactose	1.500
Sorbose	3.000
Xylose	3.750
Bile salts	3.000
Sodium thiosulphate	10.670
Sodium chloride	5.000
Ferric ammonium citrate	0.800
Bromo thymol blue	0.040
Thymol blue	0.040
Agar	12.500

PRINCIPLE

Peptone special and yeast extract provide essential nitrogenous and carbonaceous compounds, long chain amino acids, vitamins and other essential growth nutrients. The salts provide the essential minerals and electrolytes. Sodium chloride maintains osmotic equilibrium. Lactose, sorbose, inositol and xylose are sources of carbon and energy. Ampicillin, bile

salts and sodium thioglycollate makes the medium selective. Bromothymol blue and thymol blue acts as indicators giving the characteristic colony colour.

INSTRUCTION FOR USE

- Dissolve 28.15 grams in 500 ml purified / distilled water.
- Heat to boiling to dissolve the medium completely.
- DO NOT AUTOCLAVE.
- Cool to 45-50°C and aseptically add rehydrated contents of 1 vial of Aeromonas Selective Supplement.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Light yellow to light tan homogeneous free flowing powder.
Appearance of prepared medium : Dark green coloured clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 8.0±0.2

INTERPRETATION

Cultural characteristics observed after incubation with added Aeromonas selective supplement.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colony characteristics	Incubation Temperature	Incubation Period
Aeromonas hydrophila	7966	50-100	Luxuriant	>=70%	Dark green, opaque with dark centre	35-37°C	18-24 Hours
Escherichia coli	25922	>=10^4	Inhibited	0%	-	35-37°C	18-24 Hours
Pseudomonas aeruginosa	27853	50-100	Good-luxuriant	>=50%	Dark green, opaque with dark centre	35-37°C	18-24 Hours
Salmonella Typhi	6539	>=10^4	Inhibited	0%	-	35-37°C	18-24 Hours
Shigella flexneri	12022	>=10^4	Inhibited	0%	-	35-37°C	18-24 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

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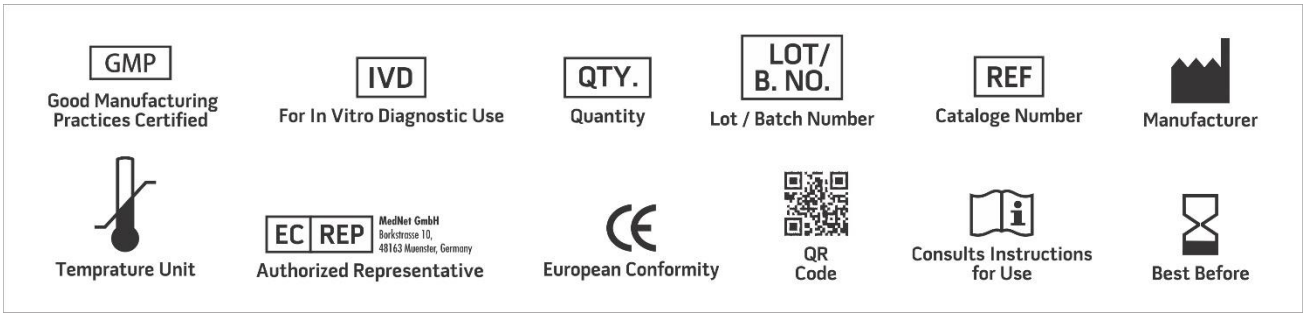

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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