TM 268 – PSEUDOMONAS ISOLATION AGAR

INTENDED USE

For selective isolation and identification of *Pseudomonas aeruginosa* from clinical and non-clinical samples.

PRODUCT SUMMARY AND EXPLANATION

Pseudomonas aeruginosa is an important human pathogen commonly found in nosocomial infections. It successfully combines adaptability to a variety of moist environments with a collection of potent virulence factors. *Pseudomonas* infections usually occur at any site where moisture tends to accumulate e. g. tracheostomies, in-dwelling catheters, burns, the external ear and weeping cutaneous wounds. Pseudomonas Isolation Agar Base, used for the selective isolation and identification of *P. aeruginosa*, is a modification of Medium A, originally formulated by King, Ward and Raney. The medium contains pigment-enhancing components and the selective agents, triclosan which selectively inhibits non-pseudomonads. The pigment-enhancers i.e. potassium sulphate and magnesium chloride enhance the blue or blue-green pigment production by *P. aeruginosa*, thus aiding in its identification.

COMPOSITION

Ingredients	Gms / Ltr
Peptic digest of animal tissue	20.000
Magnesium chloride	1.400
Potassium sulphate	10.000
Triclosan (Irgasan)	0.025
Agar	13.600

PRINCIPLE

This medium consists of Peptic digest of animal tissue which provides nitrogenous compounds and other essential growth nutrients. Glycerol is a source of energy and promotes pyocyanin i.e. pigment production which is characteristic of *Pseudomonas*. Potassium sulphate and magnesium chloride enhance pyocyanin production. Triclosan selectively inhibits gram-positive and gram-negative bacteria but *Pseudomonas* species are resistant to it. Some pyocyanin producing strains may also produce small amounts of fluorescein, resulting in the production of a blue-green to green pigment. Presumptive *Pseudomonas* should be further confirmed by performing biochemical tests, as some strains of Pseudomonas do not produce pyocyanin.

INSTRUCTION FOR USE

- Dissolve 45.03 grams in 1000 ml distilled water 20 ml glycerol.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Mix well and pour into sterile petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.

Appearance of prepared medium : Yellow coloured clear to slightly opalescent gel forms in Petri plates.

pH (at 25°C) : 7.0 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of colony	Incubation Temperature	Incubation Period
Pseudomonas aeruginosa	27853	50-100	Luxuriant	>=70%	Green	35-37°C	18-48 Hours
Pseudomonas aeruginosa	10145	50-100	Luxuriant	>=70%	Blue to blue-green	35-37°C	18-48 Hours
Escherichia coli	25922	>=10^3	Inhibited	0%	-	35-37°C	18-48 Hours
Proteus mirabilis	25933	>=10^3	Inhibited	0%	-	35-37°C	18-48 Hours

PACKAGING:
In pack size of 100 gm and 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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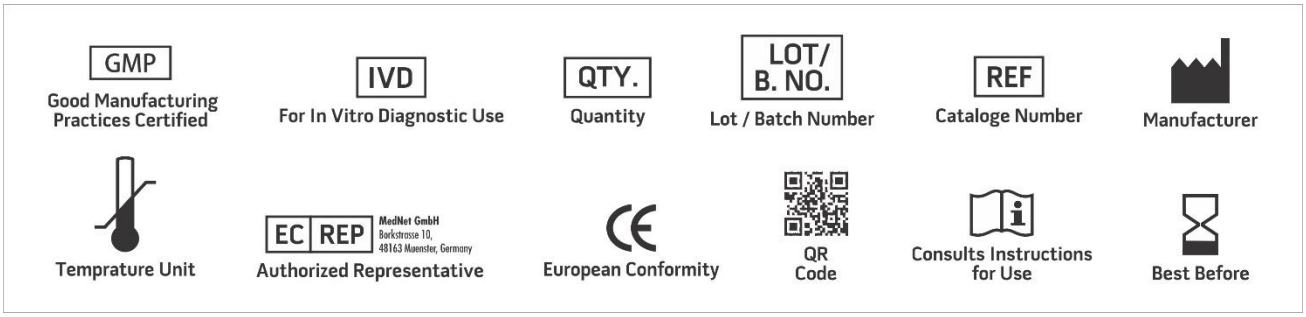

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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