Pseudomonas Agar Base

M085

Intended use :

Pseudomonas Agar Base with added supplements is recommended for selective isolation of *Pseudomonas* species from environmental samples, food and water samples.

Composition**

Ingredients	Gms / Litre
Tryptone	10.000
Gelatin peptone	16.000
Potassium sulphate	10.000
Magnesium chloride, anhydrous	1.400
Agar	11.000
Final pH (at 25°C)	7.1±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 24.2 grams in 500 ml distilled water containing 5 ml glycerol. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C and aseptically add sterile rehydrated contents of either CetriNix Supplement (FD029) or CFC Supplement (FD036) as desired. Mix well and pour into sterile Petri plates. Note : Do not keep the molten agar for longer than 4 hours.

Principle And Interpretation

Pseudomonas Agar Base is a modification of Kings A medium (5) which contains magnesium chloride and potassium sulphate to enhance pigment production. Goto and Enomoto (2) formulated CetriNix supplement for the selective isolation of *Pseudomonas aeruginosa* from clinical specimens. Lowbury and Collins (6) studied cetrimide as a selective agent. CetriNix supplement suppresses *Klebsiella, Proteus* and *Providencia* species.

Tryptone and gelatin peptone supplies nitrogenous and carbonaceous compounds, long chain amino acids, and other essential growth nutrients.

C-F-C Supplement was formulated by Mead and Adams (7) making the medium specific for isolation of *Pseudomonas* from chilled foods and processing plants, environmental samples and water. This medium is recommended for enumeration of *Pseudomonas* species from meat and meat products. It can also be used for clinical samples.

Examine inoculated plates after 24 hours and 48 hours using both white and UV light. The presence of blue-green or brown pigmentation may be considered as presumptive evidence of *Pseudomonas aeruginosa* . *Alteromonas* species may form brown or pink colonies on the medium.

Type of specimen

Clinical samples - pus, urine, body fluids, Food samples ; Water samples.

Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (3,4).

For food samples, follow appropriate techniques for sample collection and processing as per guidelines (8).

For water samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards.(1)

After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

In Vitro diagnostic Use only. Read the label before opening the container. The media should be handled by trained personnel only. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. Due to nutritional variation, some strains may show poor growth.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temmperature.

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.1% Agar gel.

Colour and Clarity of prepared medium

Yellow coloured clear to slightly opalescent gel forms in Petri plates

Reaction

Reaction of 4.84% w/v aqueous solution containing 1% v/v glycerol at 25°C. pH : 7.1±0.2

pH

6.90-7.30

Cultural Response

M085: Cultural characteristics observed after an incubation for 40-48 hours. Recovery rate is considered as 100% for growth on Soyabean Casein Digest Agar.

Organism	Inoculum (CFU)	Growth (at 34-38°C with FD029)	Recovery 34-38°C with FD029)	Growth (at 24-26°C with FD036)	Recovery (at 24-26°C with FD036)	Colour/ Fluorescence under uv
Cultural Response						
Proteus vulgaris ATCC 13315	>=10³	inhibited	0%	-	-	-
Pseudomonas aeruginosa ATCC 27853 (00025*)	50-100	good-luxuriant	>=50%	-	-	blue-green /positive
Pseudomonas aeruginosa ATCC 9027 (00026*)	50-100	good-luxuriant	>=50%	-	-	blue-green /positive
Pseudomonas aeruginosa ATCC 10145 (00024*)	50-100	good-luxuriant	>=50%	-	-	blue-green /positive
Pseudomonas cepacia ATCC 10661	50-100	-	-	good-luxuriant	>=50%	
Pseudomonas fluorescens ATCC 13525 (00115*)	50-100	-	-	good-luxuriant	>=50%	
Pseudomonas fragi ATCC 4973 (00116*)	50-100	-	-	good-luxuriant	>=50%	
Enterococcus faecalis ATCC 29212 (00087*)	>=10³	inhibited	0%	-	-	-
Enterococcus faecalis ATCC 19433 (00009*)	>=10³	inhibited	0%	-	-	-
Escherichia coli ATCC 25922 (00013*)	>=10³	inhibited	0%	inhibited	0%	
Escherichia coli ATCC 8739 (00012*)	>=10³	inhibited	0%	inhibited	0%	

M085: Cultural characteristics observed after an incubation for 40-48 hours. Recovery rate is considered by comparing with previously approved lot of the same medium.

Organism	Inoculum (CFU)	Growth (at 34-38°C with FD029)	Recovery 34-38°C with FD029)	Growth (at 24-26°C with FD036)	Recovery (at 24-26°C with FD036)	Colour/ Fluorescence under uv
Cultural Response						
Proteus vulgaris ATCC 13315	>=10³	inhibited	0%	-	-	-
Pseudomonas aeruginosa ATCC 27853 (00025*)	50-100	good-luxuriant	>=70%	-	-	blue-green /positive
Pseudomonas aeruginosa ATCC 9027 (00026*)	50-100	good-luxuriant	>=70%	-	-	blue-green /positive
Pseudomonas aeruginosa ATCC 10145 (00024*)	50-100	good-luxuriant	>=70%	-	-	blue-green /positive
Pseudomonas cepacia ATCC 10661	50-100	-	-	good-luxuriant	>=70%	
Pseudomonas fluorescens ATCC 13525 (00115*)	50-100	-	-	good-luxuriant	>=70%	
Pseudomonas fragi ATCC 4973 (00116*)	50-100	-	-	good-luxuriant	>=70%	
Enterococcus faecalis ATCC 29212 (00087*)	>=10³	inhibited	0%	-	-	-
Enterococcus faecalis ATCC 19433 (00009*)	>=10³	inhibited	0%	-	-	-
Escherichia coli ATCC 25922 (00012*)	>=10³	inhibited	0%	inhibited	0%	
Escherichia coli ATCC 8739 (00013*)	>=10³	inhibited	0%	inhibited	0%	

Key : * - Corresponding WDCM numbers

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition Seal the container tightly after use. Use before expiry date on the label.
Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (3,4).

References

1. Baird R.B., Eaton A.D., and Rice E.W., (Eds.), 2015, Standard Methods for the Examination of Water and Wastewater, 23rd ed., APHA, Washington, D.C.
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4. Jorgensen,J.H., Pfaller , M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
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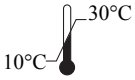
IVD	In vitro diagnostic medical device
CE	CE Marking
	Storage temperature
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