ACETAMIDE AGAR (DOUBLE PACK) TM 401

For confirmation of *Pseudomonas aeruginosa* in water samples

Composition

Ingredients	g/L
Part I	
Acetamide	10.000
Part II	
Agar	15.000
Sodium chloride	5.000
Dipotassium hydrogen phosphate	1.390
Potassium dihydrogen phosphate	0.730
Magnesium sulphate	0.500
Phenol red	0.012

*Dehydrated powder, store in a dry place, in tightly - sealed containers below 2 - 8°C and protect from direct Sunlight.

Instructions for Use

Dissolve 22.63g of Part II in 1000ml of distilled water. Mix properly and add 10g of Part I to the Part II solution. Gently heat to boil with gentle swirling and dissolve the medium completely. Dispense medium in culture tubes and sterilize by autoclaving at 15 psi (121ºC) for 15 minutes. Cool the tubes at 50ºC, keep in slanted position at room temperature.

Appearance: Orange colour, clear to light opalescent gel
pH (at 25°C): 7.0 ± 0.2

Principle

ACETAMIDE AGAR (DOUBLE PACK) is used for the confirmation of *Pseudomonas aeruginosa* in water samples.

Medium contains buffers; Dipotassium hydrogen phosphate and Potassium dihydrogen phosphate, Sodium chloride for osmotic balance, Magnesium sulphate for normal cell division and growth and Agar as a solidifying agent.

Phenol red indicator to detect the deamination of acetamide in the medium to distinguish *P. aeruginosa* from other species of *Pseudomonas*. *P. aeruginosa* produces enzyme acylamidase, which is responsible for deamination of acetamide (sole caron source). Deamination leads to formation of ammonia, which makes the medium alkaline, results in medium colour change orange to purplish red.

Microbiological parameters (Growth promotion test)

Cultural characteristics observed after inoculation (10^3CFU / ml) and incubation at 35±2°C for 4 - 7days.

Test strains	ATCC	Inoculum (CFU/ml)	Growth	Deamination reaction
Pseudomonas aeruginosa	27853	10^3	Good	Positive, purplish red colour
Escherichia coli	8739	10^3	Poor	Negative, no colour change
Proteus mirabilis	77289	10^3	None	Negative, no colour change

References

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6. Smith and Dayton, 1972, Appl. Microbiol., 24: 143.