Block 5, Street 9 inside The Ismailia free zone. Ismailia- Egypt
Post Code-41511
Tel.-Fax: +202 21813500/ +202 21813600
Mob.: +2 01211550941/ +2 01119225860
E-mail: sales@arenabioscientific.com
Website: www.arenabioscien.com

Acetamide Agar (Twin Pack)

Designed for confirmation of *Pseudomonas aeruginosa i*n water samples.

0REF: BS.1/NZ01.100.0100	100 Gram	REF: BS.1/NZ01.250.0250	250 Gram
REF: BS.1/NZ01.500.0500	500 Gram		

PRINCIPLE AND INTERPERTATION :

Acetamide Agar was developed according to the recommendations of Standard Methods for the Examination of Water and Wastewater (1). Studies by Gilardi and co-workers demonstrated that many non-fermentative bacteria are able to utilize acetamide when grown on basal mineral media (3,11). Nevertheless, only a limited number of these organisms can metabolize acetamide through deamination via acrylamidase activity (8,9), making this reaction valuable for the differentiation and identification of several non-fermenting Gram-negative bacteria (2,4,10). This characteristic is commonly observed in Pseudomonas aeruginosa, Pseudomonas aciovorans Group III (Achromobacter xylosoxidans), and Alcaligenes odorans (7). During acetamide deamination, ammonia is released, causing an increase in the medium's pH. As a result, the phenol red indicator changes color from yellow-orange to purplish red, indicating a positive reaction. Some strains may require up to seven days to produce this reaction because of their slow deamination of acetamide. It should be noted that only approximately 40% of non-pyocyanin-producing strains of Pseudomonas aeruginosa give a positive result. Therefore, this test should not be used as the sole criterion for identification. The medium contains inorganic salts and acetamide, which serves as the sole source of carbon and nitrogen. Sodium chloride maintains osmotic balance, while phenol red functions as the pH indicator.

MEDIA COMPOSITION

Item	Formula per liter of medium
Part A	-
Acetamide	10.00 g
Part B	-
Sodium chloride	5.0
Dipotassium hydrogen phosphate	1.390
Potassium dihydrogen phosphate	0.730
Phenol red	0.012
Magnesium sulphate	5.0
Agar	15.0

Final pH 7.0 ± 0.2
** Formula adjusted, standardized to suit performance parameters.

PRECAUTIONS AND WARNINGS

Media to be handled by entitled and professionally educated person. Do not ingest or inhale.

Good Laboratories practices using appropriate precautions should be followed in:

- Wearing personnel protective equipment (overall, gloves, glasses,).
- Do not pipette by mouth.
- In case of contact with eyes or skin; rinse immediately with plenty of soap and water. In case of severe injuries; seek medical advice immediately.
- Respect country requirement for waste disposal.
  S56: dispose of this material and its container at hazardous or special waste collection point.
  S57: use appropriate container to avoid environmental contamination.
  S61: avoid release in environment.

For further information, refer to the Acetamide Agar material safety data sheet.

STORAGE AND STABILITY

BioScien Acetamide Agar Store between 10-30°C in a tightly closed container and the prepared medium at 15-25°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 Product performance is best if used within stated expiry period.

PREPARATION

Suspend 22.63 grams of part B in 1000 ml purified / distilled water. Add 10.0 grams of Part A. Heat to boiling to dissolve the medium completely. Dispense in tubes or flasks as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool the tubes in a slanted position.

Deterioration

The color of ***BioScien*** Acetamide Agar.Part A :Colourless deliquescent crystals Part B : Light yellow to brick red homogeneous free flowing powder.prepared medium is Orange coloured clear to slightly opalescent gel forms in tubes as slants.

EQUIPMENT REQUIRED NOT PROVIDED

- Sterile petri dishes
- Incubator
- Autoclave

PERFORMANCE CHARACTERISTICS

Cultural characteristics observed after an incubation at 35-37°C for 4-7 days.

Organism	Growth	Deamination
Pseudomonas aeruginosa ATCC 27853	Luxuriant	positive reaction, purplish red colour within 7 days
Stenotrophomonas maltophila ATCC 13637	Luxuriant	negative reaction ,no purplish red colour within 7 days

QUALITY CONTROL

To ensure adequate quality control, it is recommended that positive and negative control included in each run. If control still out of range please contact ***BioScien*** technical support.

REFERENCE

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.
2. Buhlmann, Vischer and Bruhin, 1961, J. Bacteriol., 82:787
3. Gilardi, 1974, Antonie Van Leeuwenhoek, J. Microbiology Serol., 39:229.
4. Hedberg, 1969, Appl. Microbiol., 17: 481.
5. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
6. 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.
7. Oberhofer and Rowen, 1974, Appl. Microbiol., 28:720.
8. Pickett M. J. and Pedersen M.M., 1970, Can. J. Microbiol.,16:351.
9. Pickett M. J. and Pedersen M.M., 1970, Can. J. Microbiol., 16:401.
10. 10. Smith and Dayton, 1972, Appl. Microbiol., 24: 143
11. Stainier, Palleroni and Doudoroff, 1966, J. Gen Microbiol., 43:159.

SYMBOLS IN PRODUCT LABELLING

IVD	For in-vitro diagnostic use	Σ	Number of <n> test in the pack
LOT	Batch Code/Lot number		Caution
REF	Catalogue Number		Do not use if package is damaged
	Temperature Limitation		Consult Instruction for use
	Expiration Date		
	Manufactured by		