

TCM 20,013 – ACETAMIDE AGAR, MODIFIED (DOUBLE PACK)

INTENDED USE

For confirmation of *Pseudomonas aeruginosa* in water samples.

PRODUCT SUMMARY AND EXPLANATION

Acetamide Agar, Modified is formulated as per recommendation of Standard Methods for Examination of Water and Wastewater. Gilardi and others showed that a wide variety of non-fermenting organisms were capable of utilizing acetamide by using basal mineral media. However very few organisms growing in the medium metabolize acetamide by the process of deamination (acrylamidase activity). This unique ability is useful in identification of various non-fermenting gram-negative organisms. This ability is shown by *Pseudomonas aeruginosa*, *Pseudomonas aciovorans* Group III (*Achromobacter xylosoxidans*) and *Alcaligenes odorans*.

COMPOSITION

| Ingredients | Gms / Ltr |
|--------------------------------|-----------|
| Part I | |
| Acetamide | 3.000 |
| Part II | |
| Sodium chloride | 5.000 |
| Yeast extract | 0.500 |
| Potassium dihydrogen phosphate | 1.000 |
| Phenol red | 0.030 |
| Dextrose (Glucose) | 0.200 |
| Agar | 15.000 |

PRINCIPLE

Acetamide deamination leads to the liberation of ammonia, which thereby increases the pH of the medium, leading to a subsequent colour change of the phenol red indicator from yellow orange to purplish red. Some strains require up to seven days to exhibit a positive reaction as they deaminate acrylamide slowly. However, only about 40% of apyocyanogenic strains of *Pseudomonas aeruginosa* exhibit a positive reaction. It is therefore, not advisable to rely on this test as the only criterion for identification.

INSTRUCTION FOR USE

Suspend 21.73 grams of part II in 1000 ml purified / distilled water.

Add 3.0 grams of Part I. Heat to boiling to dissolve the medium completely.

Dispense in tubes or flasks as desired.

Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool the tubes in a slanted position.

QUALITY CONTROL SPECIFICATIONS

| | |
|---|--|
| Appearance of Powder | : Part I: Colourless deliquescent crystals Part II : Light yellow to brick red homogeneous free flowing powder. |
| Appearance of prepared medium pH (at 25°C) | : Orange coloured clear to slightly opalescent gel forms in tubes as slants. : 6.30±0.2 |

INTERPRETATION



Cultural characteristics observed after incubation.

| Microorganism | ATCC | Inoculum (CFU) | Growth | Deamination | Incubation Temperature | Incubation Period |
|------------------------------|-------|----------------|----------------|---|------------------------|-------------------|
| Stenotrophomonas maltophilia | 13637 | 50-100 | Good-luxuriant | Negative reaction ,no purplish red colour within 7 days | 35-37°C | 4-7 days |
| Pseudomonas aeruginosa | 27853 | 50-100 | Good-luxuriant | Positive reaction, purplish red colour within 7 days | 35-37°C | 4-7 days |

PACKAGING:

Inpacksizeof500 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

Afteruse,prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

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7. 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.
8. Buhlmann, Vischer and Bruhin, 1961, J. Bacteriol., 82:787.
9. Gilardi, 1974, Antonie Van Leeuwenhoek, J. Microbiology Serol., 39:229.
10. Hedberg, 1969, Appl. Microbiol., 17: 481

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|  GMP Good Manufacturing Practices Certified |  Best Before |  QTY. Quantity |  REF Catalogue Number |  Manufacturer |
|  Temperature Unit |  LOT/ B. NO. Lot / Batch Number |  Consults Instructions for Use |  QR Code | |

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

*For LabUse Only

