TM 2102 - GLYCEROL MANNITOL ACETAMIDE CETRIMIDE AGAR (DOUBLE PACK)

INTENDED USE

For the enumeration of *Pseudomonas aeruginosa* from contaminated materials.

PRODUCT SUMMARY AND EXPLANATION

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*. 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 cherry red.

The medium was distributed in tubes as slants. The tubes were streaked and then incubated in water bath at 41-43°C for 24-48 hours. *Ps. aeruginosa* grew luxuriantly with a colour change from yellow orange to cherry red. The medium can also be used to enumerate *Ps. aeruginosa* in contaminated materials. The contaminated lake water or sewage were spread directlyon GMAC Agar in Kolle flasks and incubated at 41-43°C for 20-48 hours. After incubation the colonies surrounded by red zones were counted as *Ps. aeruginosa*. This medium does not support the growth of most organisms.

COMPOSITION

Ingredients	Gms / Ltr
Part I	
Peptone	0.200
Potassium sulphate	10.000
Magnesium chloride,6H2O	1.400
Cetrimide	0.300
D-Mannitol	5.000
Agar	15.000
Part II	
Phenol red	0.012
Acetamide	10.000

PRINCIPLE

Peptone in the medium supports growth. Glycerol serves as a carbon source. Potassium sulphate and magnesium chloride serves as a source of ions that stimulate metabolism. Mannitol is the fermenting sugar. Acetamide is a source of nitrogen and carbon. Phenol red is the indicator dye. Acetamide is deaminated by *Ps. aeruginosa* and mannitol is not fermented which is detected by phenol red indicator. This imparts cherry red colour.

INSTRUCTION FOR USE

- Dissolve 31.16 grams of part I in 900 ml distilled water containing 5 ml of glycerol.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 118°-121°C for 20 minutes.
- Dissolve 10.012 grams of part II Dispense in tubes or as desired.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

- Cool to 45-50°C.
- Aseptically add contents of Part B to Part A.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Part I: Cream to yellow homogeneous flowing powder Part II: Light yellow to pink-red deliquescent crystals.

Appearance of prepared medium : Yellow orange coloured clear to slightly opalescent gel forms in tubes as slants or can be poured into sterile Petri plates.

pH (at 25°C) : 7.0±0.2

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Deamination	Incubation Temperature	Incubation Period
Stenotrophomonas maltophila	*13637*	50-100	Good-luxuriant	>=50 %	Negative reaction, no cherry red colour	35-37°C	20-48 Hours
Pseudomonas aeruginosa	*27853*	50-100	Good-luxuriant	>=50 %	Positive reaction, no cherry red colour	35-37°C	20-48 Hours

PACKAGING:

In pack size of 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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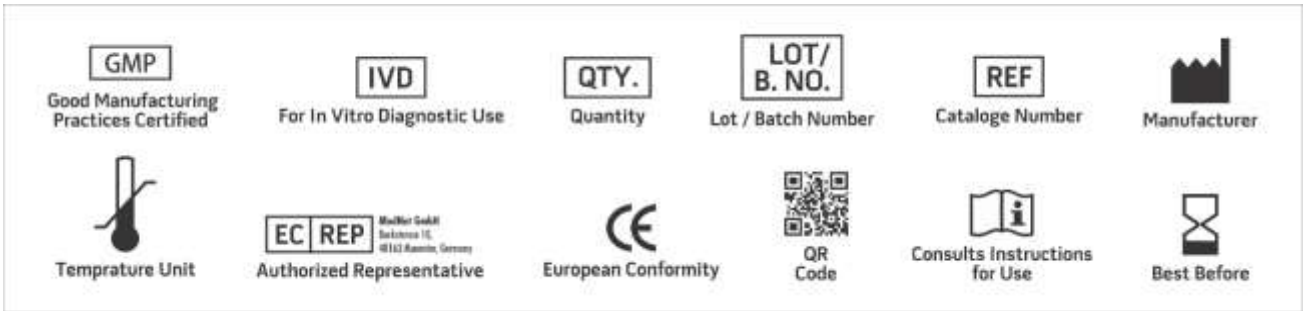

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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