Mannitol Agar w/ Prilion

M1624

Intended Use:

Recommended as a Selective agar used for isolation and differentiation of Salmonellae from *Proteus* species.

Composition**

Ingredients	g / L
HM peptone #	10.000
HM extract $	7.000
Sodium chloride	3.000
Disodium hydrogen phosphate	2.000
D-Mannitol	15.000
Water blue	0.625
Metachrome yellow	1.875
Pril	2.000
Agar	13.000
Final pH (at 25°C)	7.2±0.2

**Formula adjusted, standardized to suit performance parameters
Equivalent to Meat peptone
$ Equivalent to Meat extract

Directions

Suspend 54.5 grams in 1000 ml purified/distilled water. 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. Mix well and pour into sterile Petri plates.

Principle And Interpretation

Mannitol Agar w/ Prilion is a selective medium developed by Pietzsch (1) for the isolation and differentiation of *Salmonella* from *Proteus* species. This medium is the modification of Gassner Agar (2), with lactose being replaced with mannitol and the addition of the selective component Pril.

The detergent Pril inhibits flagellate movement and thus prevents swarming of *Proteus*, without affecting the growth of *Salmonella* (3,4). This medium helps to distinguish between lactose-negative, mannitol-positive *Salmonella* colonies from lactose-negative, mannitol-negative *Proteus* colonies by their different colouration. But as both *Salmonella* and coliform bacteria ferment mannitol, they cannot be differentiated from one another on this medium. The prepared culture medium is green; in the acidic pH range it becomes blue-green to blue. At alkaline pH; however the yellow colour of the metachrome yellow becomes increasingly apparent.

Type of specimen

Clinical samples - Faeces

Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (5,6).

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

Warning and Precautions :

In Vitro diagnostic Use only. For professional use only. Read the label before opening the container. 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.Individual organisms differ in their growth requirement and may show variable growth patterns on the medium.

2.Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement.

3. Presumptive *Salmonella* should be confirmed by biochemical tests.

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 temperature.

Quality Control

Appearance

Light yellow to blue homogeneous free flowing powder

Gelling

Firm comparable with 1.3% agar gel

Colour and Clarity of prepared medium

Olive green coloured clear to slightly opalescent gel forms in Petri plates **Reaction**

Reaction of 5.45% w/v aqueous solution at 25°C pH : 7.2±0.2

pH

7.00-7.40

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth	Recovery	Colour of colonies and medium
Escherichia coli ATCC 25922 (00013*)	50-100	good	40-50%	blue
Klebsiella pneumoniae ATCC 13883 (00097*)	50-100	good	40-50%	blue
Salmonella Typhimurium ATCC 14028 (00031*)	50-100	good	40-50%	blue
Salmonella Enteritidis ATCC 13076 (00030*)	50-100	good	40-50%	blue
Proteus mirabilis ATCC 14273	50-100	fair	20-30%	yellow
Proteus vulgaris ATCC 13315	50-100	fair to good	30-40%	yellow

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. 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 (5,6).

Reference

1. Pietzsch O,1967, Fleischwirtsch., 1:31-32
2. Gassner G., 1918, Centralbl. F., Backt. I. Orig., 80: 219
3. Doll W., 1956, Zbl. Bakt., I. Abt. Orig., 166; 43-47.
4. Doll W, 1958, Zbl. Bakt., I. Abt. Orig., 171;151-152.
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.

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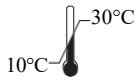
IVD *In vitro* **diagnostic medical device**



Storage temperature

EC REP

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CE **CE Marking**

Do not use if package is damaged

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