

MANNIYOL SALT AGAR / CETRIMIDE AGAR

INTENDED USE:

Mannitol Salt Agar is a selective medium for the isolation of presumptive pathogenic staphylococci. Most other bacteria are inhibited, with the exception of a few halophilic species.

Cetrimide Agar is used for the selective isolation and presumptive identification of *Pseudomonas aeruginosa* from clinical and nonclinical specimens.

PRINCIPLE AND INTERPRETATION:

This medium is important in medical laboratories by distinguishing pathogenic microbes in a short period of time. It contains a high concentration (about 7.5%-10%) of salt (NaCl), making it selective for Gram-positive bacteria (*Staphylococcus* and *Micrococcaceae*) since this level of salt is inhibitory to most other bacteria. It is also a differential medium for mannitol-fermenting staphylococci, containing carbohydrate mannitol and the indicator phenol red, a pH indicator for detecting acid produced by mannitol-fermenting staphylococci. *Staphylococcus aureus* produces yellow colonies with yellow zones, whereas other coagulase-negative staphylococci produce small pink or red colonies with no colour change to the medium. If an organism can ferment mannitol, an acidic byproduct is formed that causes the phenol red in the agar to turn yellow. It is used for the selective isolation of presumptive pathogenic (pp) *Staphylococcus* species.

Cetrimide is a quarternary ammonium compound with bactericidal activity against a broad range of Gram-positive organisms and some Gram-negative organisms.

Pseudomonas aeruginosa produces a number of water soluble iron chelators, including the yellow-green or yellow-brown fluorescent pyoverdinin. When pyoverdinin combines with the blue water-soluble pyocyanin, the bright green colour characteristic of *Pseudomonas aeruginosa* is created. The addition of magnesium chloride and potassium sulphate enhances the production of these chelators.

COMPOSITION:

| MANNITOL SALT AGAR | |
|--------------------|----------|
| Ingredients | Gr/Liter |
| Peptone | 10 gr |
| Meat extract B# | 1 gr |
| Mannitol | 10 gr |
| Sodium chloride | 75 gr |
| Phenol red | 0,025 gr |
| Agar | 15 gr |

| CETRIMIDE AGAR | |
|--------------------|----------|
| Ingredients | Gr/Liter |
| Gelatin peptone | 20 gr |
| Magnesium Chloride | 1,4 gr |
| Potassium Sulphate | 10 gr |
| Cetrimide | 0,3 |
| Agar | 13,6 gr |

pH 7,4 ± 0,2

pH: 7,2 ± 0,2

*Formula adjusted, standardized to suit performance parameters

PRECAUTIONS:

For professional use only. Do not use plates if they show evidence of microbial contamination, discoloration, drying, cracking or other signs of deterioration.

QUALITY CONTROL:**1.Sterility Control:**

Incubation 48 hours at 30-35°C and 72 hours at 20-25°C: NO GROWTH

2.Physical/Chemical Control

| | Mannitol Salt Agar | Cetrimide Agar |
|------------|--------------------|----------------|
| pH: | 7,4 ± 0,2 | 7,2 ± 0,2 |
| Apperance: | Pinkish red | Light amber |

3.Microbiological Control: Incubation at 35± 2 °C during 24-48 h

| Microorganism | Inoculum (CFU) | Results | |
|---------------------------------------|----------------|--|--------------------|
| | | Mannitol Salt Agar | Cetrimide Agar |
| Staphylococcus epidermidis ATCC 12228 | 10-100 | Colorless to pink colonies (mannitol-) | - |
| Staphylococcus aureus ATCC 25923 | 10-100 | Yellow colonies; yellow halo around colonies (mannitol+) | - |
| Escherichia coli ATCC 25922 | 100-1000 | Inhibition | Partial inhibition |
| Pseudomonas aeruginosa ATCC 9027 | 10-100 | - | Green-Yellow |
| Pseudomonas aeruginosa ATCC 27853 | 10-100 | - | Green-Brown |
| S.aureus ATCC 25923 | 100-1000 | - | Inhibition |

STORAGE CONDITIONS AND SHELF LIFE:

Store the prepared medium at 2 - 12°C. Use before expiry date on the label. Do not use beyond stated expiry date.

DISPOSAL:

Incubated prepared medium may contain active bacteria and micro-organisms. Do not open infected medium. Infected plate should be autoclaved, incinerated or opened and soaked in a chlorine-based disinfectant (liquid bleach) for 20 minutes prior to disposal.

PACKAGING:

Katalog Number: 03023

Packaging: Single wrap

Content: 10 plates/each package

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| STERILE A | Aseptic Sterile |
| LOT | Batch Code |
| REF | Catalogue Number |
| CONTROL - | Negative Controls |
| CONTROL + | Positive Controls |



Use by



Temperature
Limitation



Do not reuse



Contains sufficient
for <n> tests



Look at user manual



Manufacturer