

## CM 22078 -MacConkey SORBITOL AGAR BASE (ISO 16654-2001)

### INTENDED USE

Aselectivemedium for isolation and detectionofEscherichia coli O157:H7.

### PRODUCTSUMMARY ANDEXPLANATION

MacConkey Sorbitol Agar Base is recommendedforthe isolation and identification of enteropathogenic Escherichia coli strains. It is based on the formulation describedbyRappaport and Henigh which was modified by the ISO Committee. In this medium, E.coli O157: H7 is detected on thebasis of its inability to ferment sorbitol, thus growing as colourless colonies.

### COMPOSITION

| Ingredients                | Gms / Ltr |
|----------------------------|-----------|
| Casein enzymic hydrolysate | 17.000    |
| Agar                       | 13.500    |
| D-Sorbitol                 | 10.000    |
| Sodium chloride            | 5.000     |
| Meat peptone               | 3.000     |
| Bile salt                  | 1.500     |
| Neutral red                | 0.030     |
| Crystal violet             | 0.001     |

### PRINCIPLE

Mediumcontains Casein enzymic hydrolysate and Meat peptone which supply necessary nutrients like nitrogenous and carbonaceous compounds, long chain amino acids, minerals, vitamins and trace ingredients for the growth of organisms. Crystal violet and bile salt present in the medium inhibit the growth of gram-positive bacteria. Sodium chloride maintains osmotic equilibrium. Neutral red is an indicator. D-Sorbitol is the fermentable carbohydrate. Agar acts as a solidifying agent.

### INSTRUCTIONFOR USE

- Dissolve 40.03 grams of Part I in 990 ml distilled water. Add 10.0 grams of Part II in it.
- Gently heat to boiling with swirling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi (121°C) for 15 minutes.
- Cool to 45-50°C.
- Aseptically Add rehydrated contents 2 vials of Tellurite-Cefixime Supplement (TS 087).
- Mix well and pour into sterile petri plates.

### QUALITY CONTROL SPECIFICATIONS

|                                 |   |                                                         |
|---------------------------------|---|---------------------------------------------------------|
| Appearance of Dehydrated powder | : | Light yellow to pink, homogeneous free flowing powder   |
| Appearance of Prepared medium   | : | Purplish red coloured, clear to slightly opalescent gel |
| pH (at 25°C)                    | : | 7.1± 0.2                                                |

### INTERPRETATION

Culturalcharacteristics observed after incubation with addition of Tellurite-Cefixime Supplement (TS 087). Recovery rate is considered 100% on Soya Agar.



| Microorganism                   | ATCC  | Inoculum (CFU/ml) | Growth         | Recovery | Colour of colony | Incubation Temperature | Incubation Period |
|---------------------------------|-------|-------------------|----------------|----------|------------------|------------------------|-------------------|
| <i>Escherichia coli</i> 0157:H7 | 35150 | 50-100            | Good-Luxuriant | ≥50%     | Colourless       | 35-37°C                | 18-24 Hours       |
| <i>Pseudomonas aeruginosa</i>   | 27853 | 50-100            | None to poor   | ≤10%     | Colourless       | 35-37°C                | 18-24 Hours       |
| <i>Escherichia coli</i>         | 25922 | ≥1000             | Inhibited      | 0%       | -                | 35-37°C                | 18-24 Hours       |
| <i>Staphylococcus aureus</i>    | 25923 | ≥1000             | Inhibited      | 0%       | -                | 35-37°C                | 18-24 Hours       |

#### PACKAGING

In 500g packaging size.

#### STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°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 powder show evidence of microbial contamination, discoloration, drying, or 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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|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| <br>Good Manufacturing Practices Certified | <br>Best Before        | <br>Quantity                       | <br>Catalogue Number | <br>Manufacturer |
| <br>Temperature Unit                       | <br>Lot / Batch Number | <br>Consults Instructions for Use | <br>QR Code          |                                                                                                       |

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

\*For Lab Use Only

