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Product Information

MANNITOL SALT AGAR

Product Number **M9052**

Product Description

Mannitol Salt Agar is used as a selective media for the isolation of pathogenic *Staphylococci*. It is recommended for the detection and enumeration of coagulase-positive *Staphylococci* in milk, food and other specimens. It is recommended in U.S.P. for use in the performance of microbial limit tests.

Mannitol Salt Agar contains beef extract and proteose peptone, which makes it very nutritious as they provide essential growth factors and trace nutrients. Many other bacteria except *Staphylococci* are inhibited by 7.5% sodium chloride. Mannitol is the fermentable carbohydrate source.

Staphylococcus aureus grows on this medium and ferments mannitol to produce yellow colonies. Most coagulase negative species of *Staphylococci* and *Micrococci* do not ferment mannitol and grow as small red colonies. The color of the colonies and the medium is due to the reactivity of phenol red to the pH of the medium. Phenol red is red at pH 8.4 and phenol red is yellow at pH 6.8.

Components

| Item | g/L |
|------------------|-------|
| Proteose Peptone | 10.00 |
| Beef Extract | 1.00 |
| Sodium Chloride | 75.00 |
| D-Mannitol | 10.00 |
| Phenol Red | 0.025 |
| Agar | 15.00 |

Final pH (at 25°C) 7.4 ± 0.2

Precautions and Disclaimer

For laboratory use only. Not for drug, household or other uses.

Preparation Instructions

Suspend 111 grams of Mannitol Salt Agar in 1000 mls of distilled water. Boil to dissolve the medium completely. Sterilize by autoclaving at 15 lbs. pressure (121°C) for 15 minutes. If desired, sterile Egg Yolk Emulsion (E7899) can be added to a final concentration of 5% v/v after autoclaving.

Storage

Store the dehydrated medium at 24 °C and the prepared medium at 2-8 °C.

Product Profile

| | |
|-------------------|--|
| Appearance | Light pink colored, homogeneous, free flowing powder. |
| Gelling | Firm |
| Color and Clarity | Red colored, clear to slightly opalescent gel forms in petri plates. |
| Cultural Response | Cultural characteristics observed after 18-48 hours at 35-37°C |

| Organisms | (ATCC) | Growth | Color |
|-----------------------------------|---------|-------------------|--------|
| <i>Staphylococcus aureus</i> | (25923) | Good to luxuriant | yellow |
| <i>Staphylococcus epidermidis</i> | (12228) | Good to fair | red |

References:

1. Chapman, G. H., (1945). J. Bact., 50,201.
2. Standard Methods for the Examination of Dairy Products. (1992). Marshall, R. ed. 16th Edition. APHA. Washington, D.C.
3. The United States Pharmacopeia, (1985). 21st
4. Revision. U.S. Pharmacopeial Convention, Inc. Rockville, Maryland.
5. American Type Culture Collection, Manassas, Va., U.S.A.

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