PRODUCT INFORMATION

Product Type: PETRI DISHES 90mm

Cat No. PD033 - MANNITOL SALT AGAR

Intended Use:
Mannitol Salt Agar is used for the selective Detection, Isolation and Enumeration of pathogenic *staphylococci* in food, nonsterile pharmaceuticals and clinical specimens
This medium conforms with specifications of The United States Pharmacopeia (USP) and European Pharmacopeia (EP).
Complies: USP, ISO/DIS, 11014

Principle and Uses:
Mannitol salt agar (MSA) is both a selective and differential medium. It contains 7.5% sodium chloride and thus selects for those bacteria which can tolerate high salt concentrations. MSA also distinguishes bacteria based on the ability to ferment the sugar mannitol, the only carbohydrate in the medium. Most unwanted bacteria are inhibited with the exception of some halophilic marine organisms. Presumptive coagulase-positive staphylococci produce colonies surrounded by bright yellow zones while non-pathogenic staphylococci produce colonies with reddish purple zones.
This medium is listed as one of several recommended for the enumeration of gram-positive bacteria in cosmetics, and is recommended in the USP for use in the performance of Microbial Limit Tests.
Mannitol Salt Agar is a nutritive medium due to its content of peptones and beef extract, which supply essential growth factors, such as nitrogen, carbon, sulfur and trace nutrients. The 7.5% concentration of sodium chloride results in the partial or complete inhibition of bacterial organisms other than *staphylococci.* Mannitol fermentation, as indicated by a change in the phenol red indicator, aids in the differentiation of *staphylococcal* species.

Reading of Plate

- Easy to differentiate*: Staphylococcus aureus* forms yellow colonies with yellow halo while *Staphylococcus epidermidis* forms pink colonies with medium turning pink.

MSA (Mannitol Salt Agar)

Performance & Limitations
If excessive moisture is observed, invert the bottom over an off-set lid and allow to air dry in order to prevent formation of a seal between the top and bottom of the plate during incubation. Pathogenic microorganisms, including hepatitis viruses and Human Immunodeficiency Virus, may be present in clinical specimens.
Standard precautions and institutional guidelines should be followed in handling all items contaminated with blood and other body fluids. After use, prepared plates, specimen containers and other contaminated materials must be sterilized by autoclaving before discarding.

Warnings
- Do not use plates if they show any evidence or contamination or deterioration
- Do not use the product beyond its expiry date.

Composition
Pancreatic Digest of Casein - 5.0 g/L
Peptic Digest of Animal Tissue - 5.0 g/L
Beef Extract - 1.0 g/L
D-Mannitol - 10.0 g/L
Sodium Chloride - 75.0 g/L
Agar - 15.0 g/L
Phenol Red - 25.0 mg/L

Storage: 2-8°C
Appearance: pink, slightly opalescent
pH Range: 7.2 - 7.6

Package contents: 10 plates in a package
Exp. Date: Printed on label and on the item.
Required materials not supplied: Laboratory equipment as required.

Warning and Precautions - For professional use only. Follow good microbiological lab practices while handling specimens and culture. Do not use Petri dishes if they show evidence of microbial contamination, discoloration, drying, cracking, or other signs of deterioration. Avoid freezing and overheating. The Petri Dishes may be used / inoculated up to the expiration date and incubated for the recommended incubation times. After use and prior to discarding, specimen containers and all contaminated material, including the used culture media and contaminated culture containers, must be sterilized or incinerated by validated procedures. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.
If excessive moisture is observed, invert the bottom over an off-set lid and allow to air dry in order to prevent formation of a seal between the top and bottom of the plate during incubation. Storage Instructions: On receipt, store plates in the dark at 2–8 °C. Avoid freezing and overheating. Do not open until ready to use.

Waste Disposal
After interpretation all items should be destroyed by standard incineration methods.

Performance Testing Results:
GPT: inoculum 10-100 cfu
Inhibitory properties: inoculum 1000 cfu

TEST	ATCC	Incubation Temp. (℃)	Incubation Cond.	Reaction 1	
Staphylococcus aureus	6538	30-35 ℃	Aerobic, 18-24 hours	Growth	Yellow colonies surrounded with yellow halo
Staphylococcus epidermidis	12228	30-35 ℃	Aerobic, up to 72 hours	Growth	Small pink colonies, on pink background
Escherichia coli	8739	30-35 ℃	Aerobic, 72 hours	Inhibited	

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