CM 22555 - MANNITOL SALT AGAR PLATE (TRIPLE PACK)

INTENDED USE

For selection and subculture of *Staphylococcusaureus* in accordance with harmonized method USP/EP/BP/JP/IP.

PRODUCT SUMMARY AND EXPLANATION

MANNITOL SALTAGAR is used fortheselectiveisolation and enumeration of Staphylococci species. Chapman formulated Mannitol Salt Agar to isolate staphylococcibyinhibiting growth of most other bacteria with a high salt concentration. Pathogenic staphylococci, i.e. *Staphylococcusaureus* (coagulase test positive) is able to ferment Mannitol but other coagulase negative *Staphylococcus* are not.So,if that particular specimen contains *S. aureus*, it ferments mannitol and changes the pH of medium to acidic. As MSAcontains phenol red as a pH indicator, at pH levels below 6.9, the medium is a yellow colour. But if Coagulase negativestaphylococci grow, they can't ferment mannitol, so the colour of the media around the bacterial colony does not changetoyellow, it appears pink.
Note: *Staphylococcus saprophyticus* (coagulasenegative *Staphylococcus*) may ferment mannitol, producing yellow halo around colonies in MSA thus resembling with*S.aureus*

COMPOSITION

Ingredients	Gms / Ltr
Sodium chloride	75.000
Agar	15.000
Mannitol	10.000
Peptic digest of animal tissue	5.000
Pancreatic digest of casein	5.000
Beef extract	1.000
Phenol red	0.025

PRINCIPLE

Themedium contains Peptic digest of animal tissue, Pancreatic digest of casein and Beef extract which are the source of amino acid and nitrogen. Mannitol is the carbohydrate energy source and Phenol red is the pH indicator. The 7.5% concentration of sodium chloride results in the partial or complete inhibition of bacterial organisms other than Staphylococci. Agar is a solidifying agent. The dye turns the medium colour yellow when high acidic condition prevails in the medium due to mannitol fermentation. After the recommended incubation period, the plates should show isolated colonies in streaked areas and confluent growth in areas of heavy inoculation. Coagulase - positive Staphylococci produce growth of yellow colonies with yellow zones. Coagulase negative Staphylococci produce small red colonies with no color change to the medium.

INSTRUCTION FOR USE

Eitherstreak,inoculateorsurface spread the test inoculum aseptically on the plate.

QUALITY CONTROL SPECIFICATIONS

Appearance	:	Red coloured Medium
Quantity of Medium	:	25ml of medium in 90mm plates.
pH (at 25°C)	:	7.4± 0.2
Sterility Check	:	Passes release criteria

INTERPRETATION

Culturalresponsewasobserved after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Colour of colony	Recovery	Incubation Temperature	Incubation Period
Staphylococcus aureus	25923	50-100	Good-Luxuriant	Yellow	≥50%	30 - 35°C.	18-72 hours
Staphylococcus aureus	6538	50-100	Good-Luxuriant	Yellow	≥50%	30 - 35°C.	18-72 hours
Staphylococcus epidermidis	12228	50-100	Fair	Red	30-40%	30 - 35°C.	18-72 hours
Proteus mirabilis	12453	50-100	None to poor	Red	≤10%	30 - 35°C.	18-72 hours
Escherichia coli	25922	≥1000	Inhibited	-	0%	30 - 35°C.	=> 72 Hours
Escherichia coli	8739	≥1000	Inhibited	-	0%	30 - 35°C.	=> 72 Hours

* Formerly known as *Enterobacter aerogenes*

PACKAGING:

Triplelayeredpacking containing 5 number of plates with one silica gel desiccant bag packed inside it.

STORAGE

Onreceipt,store the plates at 15–30 °C. Avoid freezing and overheating. Do not open until ready to use. Prepared plates stored in their original sleeve wrapping until just prior to use may be inoculated up to the expiration date and incubated for recommended incubation times. Allow the medium to warm to room temperature before inoculation.

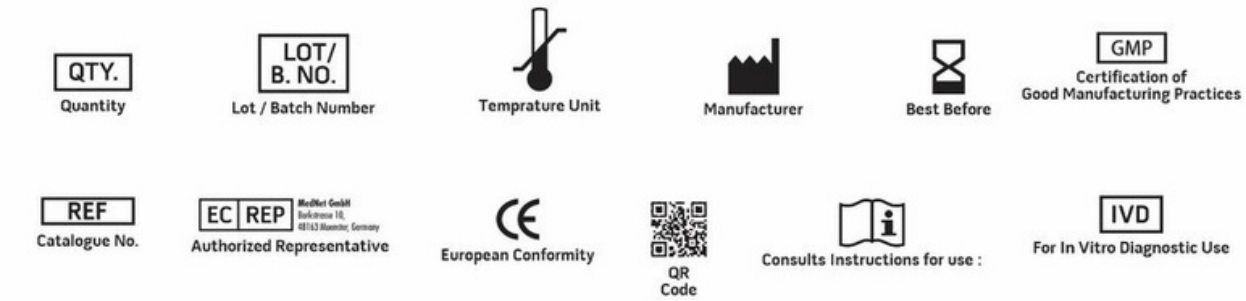
Product Deterioration: Do not use plates if they show evidence of microbial contamination, discoloration, drying, cracking or other signs of deterioration.

DISPOSAL

Afteruse,prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. Chapman G.H., 1945, J. Bact., 50:201.
2. Marshall R. (Ed.), 1992, Standard Methods for the Examination of Dairy Products, 16th ed., APHA, Washington, D.C.
3. Bacteriological Analytical Manual, 1995, Food and Drug Administration, 8th ed., AOAC, International, U.S.A.



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