TM 2201 - M-STAPHYLOCOCCUS BROTH

INTENDED USE
For detection and isolation of Staphylococci by membrane filter technique.

PRODUCT SUMMARY AND EXPLANATION
The swimming pool water is generally potable and treated with additional disinfectants but it also may come from thermal springs or salt water. Modern pools have a recirculation system for filtration and disinfection. Staphylococci are gram-positive cocci residing on the skin and mucous membrane of humans and other organisms.
M-Staphylococcus Broth is used for detection and isolation of Staphylococci by membrane filter technique. This broth is especially used for isolating pathogenic and enterotoxigenic Staphylococci and gelatin.
Inoculate the tubes of M-Staphylococcal Broth and incubate at 35 ± 2°C for 24 hours. Streak from positive tubes (turbid growth) on plates of Lipovitellin Salt Mannitol Agar Base and incubate at 35-37°C for 48 hours. Opaque, yellow zones around the colonies are positive evidence of lipovitellin- lipase activity and mannitol fermentation. Alternatively, around 2 ml of M-Staphylococcus Broth is used to saturate sterile absorbent cotton pads. Membrane filters used for filtration are aseptically placed on these saturated cotton pads. Following an incubation at 35-37°C for 18-48 hours, observe membrane for growth and pigment production. Mannitol fermentation can be visualized as yellow colouration by addition of a few drops of bromothymol blue to the areas from where colonies have been removed.

COMPOSITION

Ingredients	Gms / Ltr
Casein enzymic hydrolysate	10.000
Yeast extract	2.500
Lactose	2.000
Mannitol	10.000
Dipotassium hydrogen phosphate	5.000
Sodium chloride	75.000
Sodium azide	0.049

PRINCIPLE
Casein enzymic hydrolysate and yeast extract supply essential growth factors such as nitrogen, carbon, sulphur, vitamins and trace ingredients. The 7.5% concentration of sodium chloride results in partial or complete inhibition of bacteria except Staphylococci. Mannitol and lactose are utilized as energy sources.

INSTRUCTION FOR USE
- Dissolve 104.55 grams in 1000 ml distilled water.
- Mix thoroughly and heat to boiling for 5 minutes. Do not autoclave.
- For 10 ml inoculate, use double strength medium.

Warning: Sodium azide has a tendency to form explosive metal azides with plumbing materials. It is advisable to use enough water to flush off the disposables.

QUALITY CONTROL SPECIFICATIONS
Appearance of Powder : Cream to yellow homogeneous free flowing powder
Appearance of prepared medium : Light amber coloured clear solution without any precipitate
pH (at 25°C) : 7.0±0.2

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Enterococcus faecalis	*29212*	>=10^3	inhibited	0%	35-37°C	18-24 Hours
Escherichia coli	*25922*	>=10^3	inhibited	0%	35-37°C	18-24 Hours
Staphylococcus aureus	*25923*	50-100	good-luxuriant	>=50 %	35-37°C	18-24 Hours
Staphylococcus epidermidis	*12228*	50-100	good-luxuriant	>=50 %	35-37°C	18-24 Hours
Streptococcus pyogenes	*19615*	>=10^3	inhibited	0%	35-37°C	18-24 Hours

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°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.

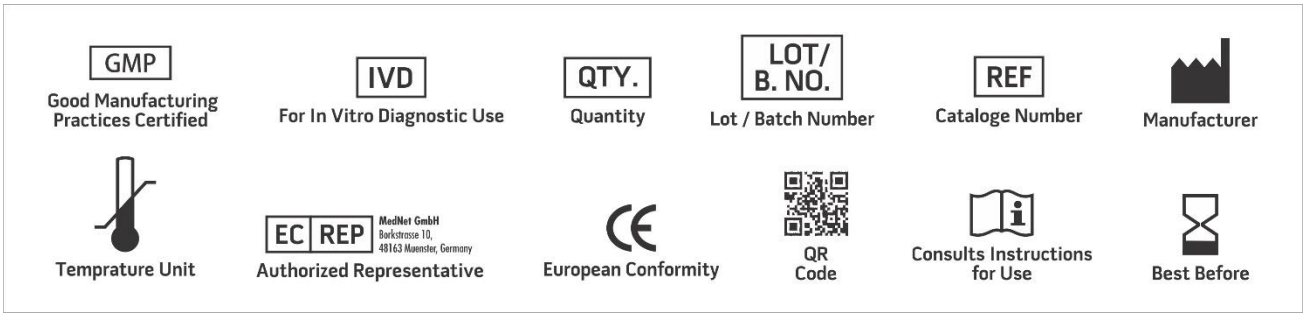
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Maintenance-of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.
2. Eaton A. D., Clesceri L. S. and Greenberg A. E., (Eds.), 1995, Standard Methods for the Examination of water and Wastewater, 19th Ed. American Public Health Association, Washington, D.C.



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

***For Lab Use Only**

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