

TM 564 - SALT MEAT BROTH

INTENDED USE

For isolation of Staphylococci from grossly contaminated samples.

PRODUCT SUMMARY AND EXPLANATION

Salt Meat Broth is an enrichment medium used for the isolation of halophilic staphylococci from contaminated samples such as faeces especially in case of food poisoning. The medium is sensitive as it can detect even low numbers of staphylococci from samples having large proportions of heterogeneous microbial flora. The medium is selective for staphylococci because of the presence of sodium chloride in high concentration. *Staphylococcus aureus* is tolerant to high concentration of sodium chloride that inhibits most other bacteria. Salt Meat Broth can also be used to cultivate some halophilic micrococci associated with hides and raw salt supplies. *Staphylococci* growing on this medium cannot be directly tested for coagulase production; therefore, they should be first subcultured on a medium containing less salt such as Blood Agar.

COMPOSITION

Ingredients	Gms / Ltr
Beef extract	10.000
Peptic digest of animal tissue	10.000
Neutral ox-heart tissue	30.000
Sodium chloride	100.000

PRINCIPLE

Peptic digest of animal tissue and beef extract provide essential nutrients for bacterial metabolism. Sodium chloride maintains osmotic equilibrium.

Emulsify the food specimen in Peptone Water and inoculate in Salt Meat Broth. After an incubation at 35°C for 24 to 48 hours, subculture on Mannitol Salt Agar or Staphylococcus Medium No. 110.

INSTRUCTION FOR USE

- Dissolve 150 grams in 100 ml distilled water. Soak for 5 minutes.
- Heat if necessary to dissolve the medium completely.
- Disperse and dispense in 5/8-inch diameter test tube.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Yellow coloured clear solution without any precipitate.
pH (at 25°C) : 7.6±0.2

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
<i>Escherichia coli</i>	25922	$\geq 10^3$	Inhibited	35 - 37°C	18 - 48 Hours
<i>Proteus vulgaris</i>	13315	$\geq 10^3$	Inhibited	35 - 37°C	18 - 48 Hours
<i>Staphylococcus aureus</i>	25923	50-100	Luxuriant	35 - 37°C	18 - 48 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.

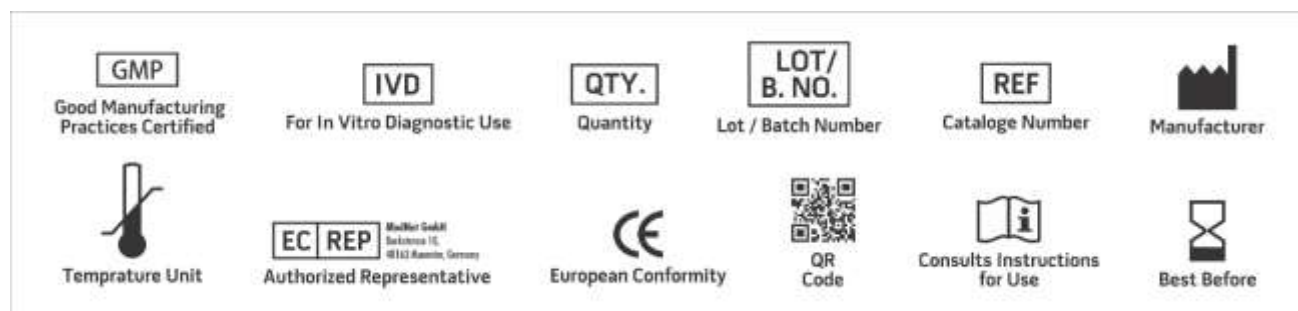
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. Maitland H. B., and Martyn G., 1948, J. Path. Bacteriol., 60:553.
2. Fairbrother R. W. and Southall J. E., 1950, Mon. Bull. Min. Hlth. Publ. Hlth. Serv., 9:170.
3. Collee J. G., Fraser A. G., Marmion B. P., Simmons A., (Eds.), Mackie and McCartney, Practical Medical Microbiology, 1996, 14th Edition, Churchill Livingstone.



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

***For Lab Use Only**
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