TM 449 – THIOL MEDIUM

INTENDED USE

For cultivation of bacteria from body fluids containing Penicillin, Streptomycin and Sulphonamides.

PRODUCT SUMMARY AND EXPLANATION

Thiol Medium is used for culturing microorganisms from body fluids and also other materials containing antibiotics like penicillin, streptomycin or sulphonamides. The efficacy of Thiol Medium to retain viability of Vibrio was initially described by Huddleson. The ability of Thiol Medium to neutralize antibacterials was demonstrated by Christensen. This media can also be used for the cultivation and maintenance of *Haemophilus*, *Vibrio* and *Meningococci*.

10 ml of Thiol Medium has capacity to nullify 100 units of penicillin and 1000 units of streptomycin supporting good growth of *Staphylococci* and other test organisms. Even dilute inocula of the test organisms can initiate and result in good growth within 24 hours. For testing, medium is prepared and tested with and without concentrations of 5, 100 and 1000 units of penicillin and 100, 1000 and 10,000 micrograms of streptomycin per 10 ml of tube. It is further inoculated with test organisms and incubated at 18 - 48 hours at 35-37°C

COMPOSITION

Ingredients	Gms / Ltr
Proteose peptone	10.000
Yeast extract	5.000
Dextrose	1.000
Sodium chloride	5.000
Thiol compound	8.000
p-Amino benzoic acid (PABA)	0.050
Agar	1.000

PRINCIPLE

Proteose peptone and yeast extract provide nitrogenous compounds, vitamin B complex and other essential growth nutrients. Dextrose is the energy source. The small quantity of agar keeps the oxido-reductive potential quite congenial for the growth of aerobic, microaerophilic and anaerobic microorganisms. p-Amino benzoic acid serves as a preservative.

INSTRUCTION FOR USE

- Dissolve 30.05 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Dispense in tubes or flasks to a depth of 6 cm for neutralization of Penicillin or in shallow layers for neutralization of Streptomycin.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Use within 4 days of preparation.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Light yellow coloured clear to slightly opalescent solution.
pH (at 25°C)	: 7.1±0.2

INTERPRETATION

Cultural characteristics observed after incubation.

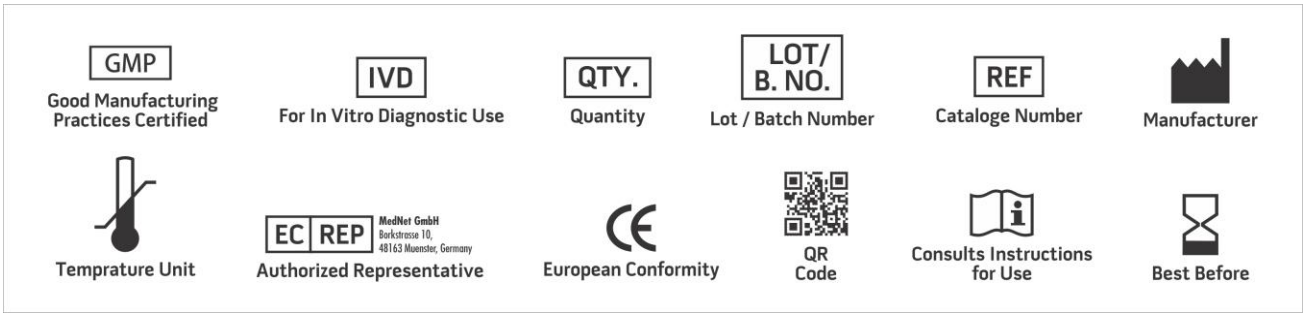
Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Neisseria meningitidis	13090	50-100	Poor-fair	35-37°C	18-48 Hours
Staphylococcus aureus	25923	50-100	Good-luxuriant	35-37°C	18-48 Hours
Streptococcus pneumoniae	6303	50-100	Good-luxuriant	35-37°C	18-48 Hours
Streptococcus pyogenes	19615	50-100	Good-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. Huddleson I. F., 1948, J. Bacteriol., 56:508.
2. Christensen D. H., 1947, Presented at the Michigan Branch, Society of American Bacteriologists, Detroit, Mich, December 12, 1947.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.
***For Lab Use Only**
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