CM 20,057 – NIH THIOGLYCOLLATE MEDIUM (ALTERNATIVE THIOGLYCOLLATE MEDIUM) (as per USP)

INTENDED USE

For sterility testing of turbid or viscous biological products.

PRODUCT SUMMARY AND EXPLANATION

NIHThioglycollate Medium isformulated as described in the N.I.H. memorandum. It is used for the sterility testing of certain biological products which are turbid or viscous and can't be tested using Fluid Thioglycollate Medium. Both the media have similar composition, except agar and resazurin that are not included in NIH Thioglycollate Medium. This deletion makes it suitable for sterility testing of viscous products.

COMPOSITION

Ingredients	Gms / Ltr
Tryptone	15.000
Yeast extract	5.000
Dextrose	5.500
Sodium chloride	2.500
L-Cystine	0.500
Sodium thioglycollate	0.500

PRINCIPLE

Thismediumcontains Tryptone that serves as a source of nitrogen and carbon compounds, long chain amino acids and other essential nutrients. Yeast extract serve as source of essential nutrients to the contaminants. Dextrose serves as the energy source. Sodium chloride maintains the osmotic equilibrium of the medium whereas L-cystine, an amino acid, also serves as source of essential growth factors. Sodium thioglycollate and L-cystine lower the oxidation-reduction potential of the medium by removing oxygen to maintain a low Eh. Sodium thioglycollate also helps to neutralize the toxic effects of mercurial preservatives.

INSTRUCTIONFOR USE

Dissolve 29.0 grams in 1000 ml purified / distilled water.
Heat if necessary to dissolve the medium completely.
Mix well and dispense into sterile tubes or flasks as desired.
Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 45-50°C.
Note: It is preferable to use freshly prepared medium, alternatively it should be boiled and cooled just once prior to use as on reheating, toxic oxygen radicles are formed.

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)	: 7.1 ± 0.2

INTERPRETATION

Culturalcharacteristics observed after incubation (incubated anaerobically)

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Salmonella Typhimurium	14028	50-100	Good-luxuriant	30-35°C	3 days
Staphylococcus aureus subsp. aureus	6538	50-100	Good-luxuriant	30-35°C	3 days
Clostridium perfringens	13124	50-100	Good-luxuriant	30-35°C	3 days
Clostridium sporogenes	14293	50-100	Good-luxuriant	30-35°C	3 days
Clostridium sporogenes	11437	50-100	Good-luxuriant	30-35°C	3 days
Pseudomonas aeruginosa	9027	50-100	Good-luxuriant	30-35°C	3 days

PACKAGING:

Inpacksizeof100 gm and 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

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

REFERENCES

1. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
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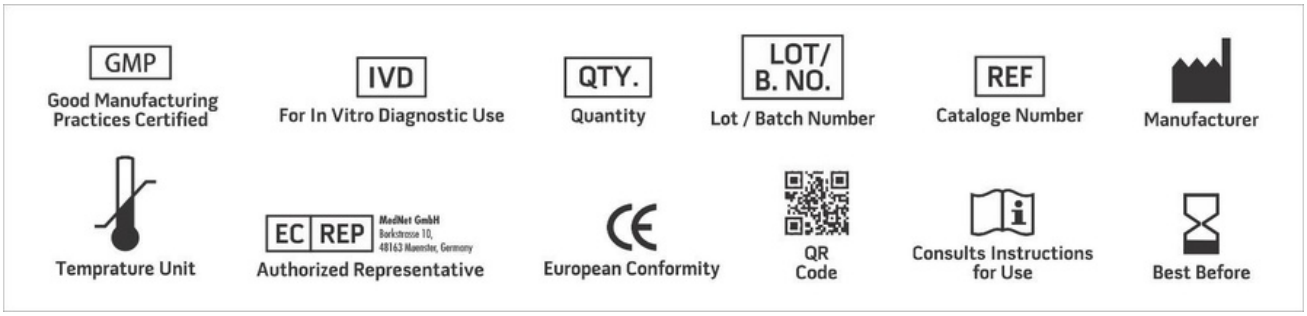
3. MacFaddin J. F., 2000, Biochemical Tests for Identification of Medical Bacteria, 3rd Ed., Lippincott, Williams and Wilkins, Baltimore
4. Nungester, Hood and Warren, 1943, Proc. Soc. Exp. Biol. Med., 52: 287
5. Portwood, 1944, J. Bacteriol., 48: 255

6.The United States Pharmacopoeia, 2006, USP29/NF24. The United States Pharmacopoeial Convention, Rockville, MD.



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

*For Lab Use Only