TM 302 – NIH THIOGLYCOLLATE MEDIUM (ALTERNATIVE THIOGLYCOLLATE MEDIUM) (as per IP)

INTENDED USE

For sterility testing of turbid or viscous biological products.

PRODUCT SUMMARY AND EXPLANATION

NIH Thioglycollate Medium is formulated as described in the N.I.H. memorandum, Indian Pharmacopoeia. This medium is used for sterility testing for detecting the presence of viable forms of microorganisms in or on pharmaceutical preparations. This medium is also used for sterility checking for devices having tubes with small lumina. NIH Thioglycollate Medium is generally used for products containing mercurial preservatives when the oxidation reduction indicator is not present or required. Lack of an indicator in the medium avoids possible toxicity to organisms. NIH Thioglycollate Medium contains sodium thioglycollate that can neutralize the bacteriostatic effect of mercurial preservatives. Absence of agar makes it suitable for testing viscous materials and devices having tubes with small lumina.

COMPOSITION

Ingredients	Gms / Ltr
Pancreatic digest of Casein	15.000
Yeast extract	5.000
Dextrose	5.500
Sodium chloride	2.500
L-Cystine	0.500
Sodium thioglycollate	0.500

PRINCIPLE

This medium contains Pancreatic digest of casein, yeast extract, dextrose monohydrate, L-cystine that provides nitrogenous and carbonaceous compounds, vitamin B complex, trace elements and other essential growth nutrients. Sodium Thioglycollate and L-cystine lower the oxidation-reduction potential of the medium by removing oxygen radicals and thus preventing the accumulation of peroxides that can be toxic to some organisms. The sulfhydryl groups of these compounds also neutralize the antibacterial effect of mercurial preservatives with heavy metals. Dextrose is the fermentable carbohydrate energy source, and Sodium Chloride maintains the osmotic balance of the medium.

INSTRUCTION FOR USE

- Dissolve 28.50 grams of dehydrated medium in 1000 ml purified/distilled water.
- Distribute into tubes or flasks as desired.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 20 minutes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Light yellow coloured clear solution without any precipitate.
pH (at 25°C) : 7.1 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Bacteroides vulgatus	8482	50-100	Luxuriant	30-35°C	<=3 days
Clostridium sporogenes	19404	50-100	Luxuriant	30-35°C	<=3 days
Clostridium sporogenes	11437	50-100	Luxuriant	30-35°C	<=3 days
Pseudomonas aeruginosa	27853	50-100	Luxuriant	30-35°C	<=3 days
Escherichia coli	25922	50-100	Luxuriant	30-35°C	<=3 days
Clostridium perfringens	13124	50-100	Luxuriant	30-35°C	<=3 days

PACKAGING:

In pack size of 100 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.

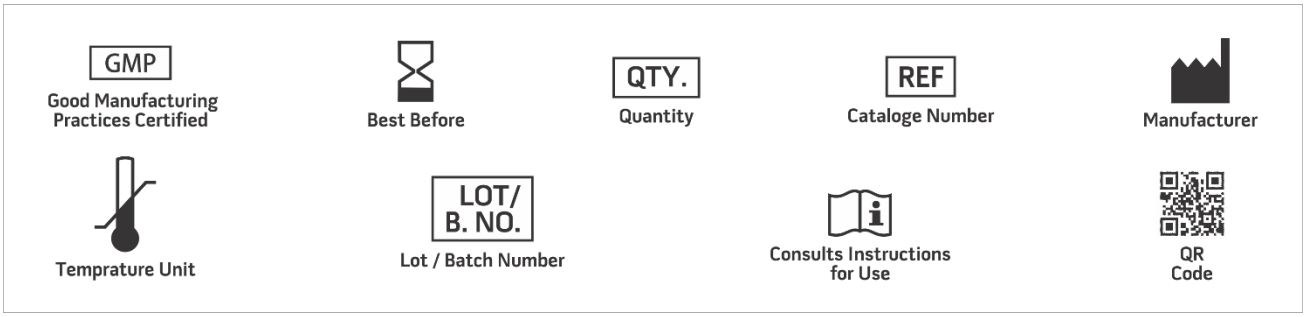
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. N.I.H. Memorandum, 1955: Culture Media for Sterility Tests, 4th Revision.
2. Indian Pharmacopoeia, 2010, Govt. of India, the controller of Publication, Delhi, India.



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

***For Lab Use Only**

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