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TM 2370 – THIOGLYCOLLATE MEDIUM W/O DEXTROSE

INTENDED USE

For cultivation of aerobes, microaerophiles, anaerobes and for fermentation studies with various carbohydrates.

PRODUCT SUMMARY AND EXPLANATION

Thioglycollate Medium without Dextrose is the modification of original Thioglycollate medium used for the fermentation study of anaerobes and for enhancement of sporulation. Omission of dextrose facilitates it to be used in fermentation studies with the addition of desired carbohydrate. Some Clostridia remain viable for a longer period and sporulate better in the absence of carbohydrate and thus this medium could be used for sporulations.

COMPOSITION

Ingredients	Gms / Ltr
Casein enzymic hydrolysate	20.000
Sodium chloride	2.500
Dipotassium phosphate	1.500
Sodium thioglycollate	0.600
L-Cystine	0.400
Sodium sulphite	0.200
Methylene blue	0.002
Agar	0.500

PRINCIPLE

Casein enzymic hydrolysate, L-cystine and salts provide essential nutrients like nitrogenous compounds, carbon, sulphur, minerals and amino acids. The reducing action provided by sodium thioglycollate and sodium sulphite binds molecular oxygen, thereby maintaining a low Eh. A small amount of agar is added to retard the absorption of oxygen by reducing convection currents in the medium. Methylene blue is a redox indicator.

INSTRUCTION FOR USE

- Suspend 25.7 grams in 1000 ml distilled water.
- If the medium is to be used for fermentation studies or for diagnostic work adds 0.5 to 1% carbohydrate of choice.
- Heat to boiling to dissolve the medium completely.
- Dispense and sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Alternatively, sterile carbohydrate solutions may be added to the broth after sterilization. The prepared medium should be stored in the dark at room temperature.

Note: If more than the upper one-third has acquired a green colour, the medium may be restored once by heating in a waterbath or free flowing steam until the green colour disappears.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Light yellow coloured very slightly opalescent viscous solution with upper 10% or less medium green on standing
pH (at 25°C)	: 7.2±0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Bacillus subtilis	6633	50-100	Good	35-37°C	48 Hours
Bacteroides vulgatus	8482	50-100	Fair	35-37°C	48 Hours
Candida albicans	10231	50-100	Good	35-37°C	48 Hours
Clostridium sporogenes	11437	50-100	Good-luxuriant	35-37°C	48 Hours
Micrococcus luteus	10240	50-100	Good	35-37°C	48 Hours
Neisseria meningitidis	13090	50-100	Good	35-37°C	48 Hours
Streptococcus pyogenes	19615	50-100	Good-luxuriant	35-37°C	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.Brewer J. H., 1940, J. Am Med. Assoc., 115, 598.
2.Brewer J. H., 1940, J. Bacteriol., 39:10. 3.MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol.1 William and Wilkins, Baltimore.

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GMP
Good Manufacturing Practices Certified

Best Before

QTY.
Quantity

REF
Cataloge Number

Manufacturer

Temprature Unit

LOT/ B. NO.
Lot / Batch Number

Consults Instructions for Use

QR Code

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