

TM 930 – CHO MEDIUM BASE (FERMENTATION BROTH)

INTENDED USE

For studies of anaerobic fermentation by adding carbohydrates.

PRODUCT SUMMARY AND EXPLANATION

Identification of anaerobes is based on cellular morphology and colony characteristics on blood agar and confirmation by biochemical tests. Carbohydrate utilization patterns play a key role in the identification of anaerobes. Metabolism of anaerobes is less efficient and therefore they require auxiliary growth factors. For the anaerobic microorganisms, proper collection and transport of suspected specimens is of pivotal importance. Exposure of the specimens to air should be minimized to the possible extent and they should be promptly cultured in the laboratory under proper atmospheric conditions. CHO Medium Base is recommended for studying fermentation of anaerobic bacteria.

COMPOSITION

Ingredients	Gms / Ltr
Tryptone	15.000
Yeast extract	7.000
L-Cystine	0.250
Sodium chloride	2.500
Ascorbic acid	0.100
Sodium thioglycollate	0.500
Bromo thymol blue	0.010
Agar	0.750

PRINCIPLE

Tryptone and ascorbic acid enhance growth of oxygen sensitive and fastidious anaerobes (3). Sodium chloride maintains the osmotic equilibrium of the medium. Yeast extract serves as a source of B-complex nutrients. L-Cystine and thioglycollate help in maintaining reduced atmosphere in the medium. Small amount of agar also aids in creating anaerobiosis. Bromothymol blue is the pH indicator.

INSTRUCTION FOR USE

- Dissolve 26.11 grams in 1000 ml purified / distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 45-50°C.
- Aseptically add 6.25 ml of 10% sterile carbohydrate solution.
- Mix well and dispense in sterile tubes containing inverted Durhams tubes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to light green homogeneous free flowing powder.
Appearance of prepared medium	: Light green coloured, clear to very slightly opalescent solution without any precipitate.
pH (at 25°C)	: 7.0±0.2

INTERPRETATION



Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Fermentation w/Dextrose	Fermentation w/Lactose	Incubation Temperature	Incubation Period
<i>Bacteroides melaninogenicus</i>	25611	50-100	Luxuriant	Negative reaction, no colour change	Positive reaction, yellow colour	35-37°C	Upto 7 Days
<i>Bacteroides vulgatus</i>	8482	50-100	Luxuriant	Negative reaction, no colour change	Negative reaction, no colour change	35-37°C	Upto 7 Days
<i>Bacteroides fragilis</i>	25285	50-100	Luxuriant	Positive reaction, yellow colour	Positive reaction, yellow colour	35-37°C	Upto 7 Days
<i>Clostridium botulinum</i>	25763	50-100	Luxuriant	Positive reaction, yellow colour	Negative reaction, no colour change	35-37°C	Upto 7 Days
<i>Clostridium perfringens</i>	12924	50-100	Luxuriant	Positive reaction, yellow colour	Positive reaction, yellow colour	35-37°C	Upto 7 Days
<i>Escherichia coli</i>	35218	50-100	Luxuriant	Positive reaction, yellow colour	Positive reaction, yellow colour	35-37°C	Upto 7 Days

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. Atlas, R. M., 2004, A Handbook of Microbiological Media, 3rd Ed, CRC Press.
2. Dowell V. R. Jr., Lombad G. L., Thompson F. S., Armfield A. Y., Media for Isolation, Characterization and Identification of Obligately Anaerobic Bacteria, USDHEW Atlanta, CA: Centers for Disease Control, 1977:22
3. Laboratory Methods in Anaerobic Bacteriology, 1974, CDC Laboratory Manual, U.S. Dept. HEW, Pub. No. 74-8262.
4. MacFaddin, J. F., 1985, (Ed), Media for Isolation-Cultivation-Identification of Medical Bacteria. Vol. I., Williams and Wilkins, Baltimore.
5. Washington J. A., Laboratory Procedures in Clinical Microbiology, Cd 2 New York: Springer-Verlag, 1985: 774, 801-802.



 GMP Good Manufacturing Practices Certified	 Best Before	 Quantity	 Catalogue Number	 Manufacturer
 Temperature Unit	 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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