

TM 893 – TRYPTONE DEXTROSE AGAR

INTENDED USE

For studying motility and fermentation of dextrose by aerobes and anaerobes.

PRODUCT SUMMARY AND EXPLANATION

Tryptone Agar was developed by Vera for the accurate differentiation and identification of aerobes and anaerobes by means of motility and fermentation reactions. It is recommended for Clostridia, *Bacillus* species, Micrococci, enteric bacilli and other non-fastidious organisms.

Small amount of agar renders it suitable for study of motility. Acid produced do not readily get dispersed throughout the medium and hence positive reaction can be more quickly determined in this medium than in liquid medium. This is also an excellent medium for the maintenance for both - aerobic and anaerobic cultures. Viability in this medium is greater than in any other broth medium or slant culture. Organisms capable of utilizing dextrose, ferment dextrose and produce acidic conditions in the medium. This acidity is detected by the pH indicator bromothymol blue which changes from blue to yellow under acidic conditions.

COMPOSITION

Ingredients	Gms / Ltr		
Casein enzymic hydrolysate	20.000		
Dextrose	5.000		
Bromo thymol blue	0.010		
Agar	3.500		

PRINCIPLE

Casein enzymic hydrolysate provides essential nutrients necessary to support the growth of non-fastidious microorganisms. Bromothymol blue is the pH indicator.

INSTRUCTION FOR USE

- Dissolve 28.51 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Dispense in tubes and sterilize by autoclaving at 118°C for 15 minutes.
- Cool the tubed medium in an upright position.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to light green homogeneous free flowing powder.

Appearance of prepared medium : Bluish green coloured clear to slightly opalescent gel forms in tubes as butts.

pH (at 25°C) : 7.3±0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism ATCC Inoculum (CFU/ml) Growth Acid	Motility	Incubation Temperature	Incubation Period	
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Clostridium perfringens	12924	50-100	Luxuriant	Positive reaction, yellow colour	Negative, growth along the stabline, surrounding medium remains clear	35-37°C	24-48 Hours
Clostridium sporogenes	11437	50-100	Luxuriant	Positive reaction, yellow colour	Positive, growth away from stabline causing turbidity	35-37°C	24-48 Hours
Escherichia coli	25922	50-100	Luxuriant	Positive reaction, yellow colour	Positive, growth away from stabline causing turbidity	35-37°C	24-48 Hours
Enterobacter aerogenes	13048	50-100	Luxuriant	Positive reaction, yellow colour	Positive, growth away from stabline causing turbidity	35-37°C	24-48 Hours
Salmonella Typhi	6539	50-100	Luxuriant	Positive reaction, yellow colour	Positive, growth away from stabline causing turbidity	35-37°C	24-48 Hours
Salmonella Enteritidis	13076	50-100	Luxuriant	Positive reaction, yellow colour	Positive, growth away from stabline causing turbidity	35-37°C	24-48 Hours
Staphylococcus aureus	25923	50-100	Good	Positive reaction, yellow colour	Negative, growth along the stabline, surrounding medium remains clear	35-37°C	24-48 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. Vera, 1944, J. Bact., 47:455.
- 2. MacFaddin J., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.





































NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices. *For Lab Use Only Revision: 08 Nov., 2019







