Tellurite Blood Agar Base

M1260

Intended Use:

Recommended for the selective isolation and cultivation of *Corynebacterium* species.

Composition**

Ingredients	g / L
Biopeptone	10.000
Sodium chloride	5.000
Dipotassium hydrogen phosphate	4.000
Corn starch	1.000
Potassium dihydrogen phosphate	1.000
Agar	10.000
Final pH (at 25°C)	7.2±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 31.0 grams in 970 ml purified/distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Aseptically add sterile solution of Haemoglobin (FD022) to a final concentration of 10 gms/l and sterile reconstituted contents of one vial of Vitamino Growth Supplement (FD025) and PTe 1% Selective Supplement (1 ml per vial) (FD052).Mix well and pour into sterile Petri plates.

Principle And Interpretation

Corynebacterium is a genus of gram-positive, facultatively anaerobic, non-motile bacteria that exhibits a fermentative metabolism (carbohydrates to lactic acid) under certain conditions. Corynebacteria constitute a diverse group of bacteria that includes saprophytic associations as well as plant and animal pathogens. Most species are normal flora of humans present virtually at all anatomic sites. Many species of Corynebacteria can be isolated from various places such as soil, water, blood, and human skin. Pathogenic strains of Corynebacteria can infect plants, animals, or humans. Tellurite Blood Agar is a selective medium used for isolation and cultivation of *Corynebacterium* species (1,2). It is selective due to the presence of inhibitor and differential by means of ability of organism to reduce potassium tellurite.

Biopeptone provides nitrogenous compounds. Sodium chloride maintains the osmotic equilibrium of the medium while phosphates buffer the medium. Corn starch neutralizes the toxic metabolites. Haemoglobin and Vitamino Growth Supplement stimulate good growth of *Corynebacterium*. Potassium tellurite acts as a selective agent and has inhibitory activity against most gram-positive and gram-negative bacteria except *Corynebacterium* species. *C. diphtheriae* reduces potassium tellurite to tellurium and thereby produce gray-black coloured colonies. Throat or nasal swab is directly inoculated and streaked on this agar medium.

Type of specimen

Clinical samples -Throat or nasal swab, mucous membranes, faeces; Food samples

Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (3,4).
For food a samples, follow appropriate techniques for sample collection and processing as per guidelines (5).
After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

In Vitro diagnostic use. For professional use only. Read the label before opening the container. Wear protective gloves/ protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. Further biochemical and serological tests must be carried out for further identification.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.0% Agar gel.

Colour and Clarity of prepared medium

Basal medium: Yellow coloured clear to slightly opalescent gel. With the addition of haemoglobin solution: Reddish brown coloured, opaque gel forms in Petri plates.

Reaction

Reaction of 3.1% w/v aqueous solution at 25°C. pH : 7.2±0.2

pH

7.00-7.40

Cultural Response

Cultural characteristics observed along with added FO Growth Supplement (FD022), Vitamino Growth Supplement (FD025) and PTe 1% Selective Supplement (1 ml per vial) (FD052) after an incubation at 35-37°C for 48 hours (or more).

Organism	Inoculum (CFU)	Growth	Recovery	Colour of colony
Corynebacterium diphtheriae ATCC 11913	50-100	good-luxuriant	>=50%	grey-black
Escherichia coli ATCC 25922 (00013*)	>=10^4	inhibited	0%	-

Key : *Corresponding WDCM numbers.

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (3,4).

Reference

1. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.
2. Scott T. J., 1981, Microbiological Media, A Manual of Products and Procedures, Fieskeville, TI : Scott Laboratories, Inc.
3. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
4. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
5. Salfinger Y., and Tortorello M.L., 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.

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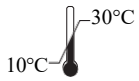
IVD *In vitro* **diagnostic medical device**



Storage temperature

EC REP

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CE Marking

Do not use if package is damaged

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