



Tryptone Tellurite Agar Base

M1056

Tryptone Tellurite Agar Base with supplements is used for selective isolation of pathogenic microorganisms from clinical specimens especially from nose, throat and vagina.

Composition**

Ingredients	Gms / Litre
Casein enzymic hydrolysate	10.000
Peptic digest of animal tissue	10.000
Sodium chloride	5.000
Dextrose	2.000
Agar	20.000
Final pH (at 25°C)	7.5±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 47 grams in 950 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 118-121°C for 15 minutes. Cool to around 50-55°C and aseptically add sterile, 10 ml of 1% Potassium Tellurite Solution (FD052) and 50 ml of sterile sheep, rabbit or human serum. Mix well and pour into sterile Petri plates.

Principle And Interpretation

Tryptone Tellurite Agar was prepared according to the specifications of the Maryland State, Department of Health as a medium for isolation of members of the genus *Corynebacterium*, particularly in the laboratory diagnosis of diphtheria (1). Pathogenic organisms like *Corynebacterium*, Streptococci are often responsible for infections in throat. These organisms are also more or less responsible for infecting the nasal cavity (2). Isolation of these organisms is important during diagnosis of fatal infections.

Casein enzymic hydrolysate and peptic digest of animal tissue present in the medium provide nitrogenous, carbonaceous compound and trace elements. Dextrose is an energy source. Sodium chloride maintains osmotic equilibrium. Potassium tellurite inhibits gram-negative and most gram-positive bacteria except *Corynebacteria* and some Streptococci (3). Serum provides additional growth factors for *Corynebacterium* species.

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 2.0% Agar gel.

Colour and Clarity of prepared medium

Yellow coloured opalescent gel forms in Petri plates.

Reaction

Reaction of 4.7% aqueous solution at 25°C. pH : 7.5±0.2

pH

7.30-7.70

Cultural Response

M1056: Cultural characteristics observed after an incubation at 35- 37°C with added Potassium Tellurite Solution (FD052) and sterile human serum for 24-48 hours.

Organism	Inoculum (CFU)	Growth	Recovery	Colour of colony
Cultural Response				
<i>Corynebacterium diphtheriae</i> ATCC 11913	50-100	luxuriant	>=50%	grey-black with dark centers

<i>Escherichia coli</i> ATCC 25922	$\geq 10^3$	inhibited	0%	
<i>Staphylococcus aureus</i> ATCC 25923	50-100	none-poor	$\leq 10\%$	white-grey

Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.

Reference

1. Albers W. D., 1947, U.S. Naval Med. Bull., 47:33.
2. Collee J. G., Fraser A. G., Marmion B. P., Simmons A. (Eds.), Mackie and McCartney, Practical Medical Microbiology, 1996, 14th Edition, Churchill Livingstone.
3. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.

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