



Stuart Transport Medium w/o Methylene Blue

M1131

Stuart Transport Medium w/o Methylene Blue is recommended for the preservation and transportation of Gonococcal species and other fastidious organisms from the clinic to laboratory.

Composition**

Ingredients	Gms / Litre
Sodium glycerophosphate	10.000
Sodium thioglycollate	0.900
Calcium chloride	0.100
Agar	3.000
Final pH (at 25°C)	7.4±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 14 grams in 1000 ml double distilled water. Heat to boiling to dissolve the medium completely. Dispense into tubes with screw caps to give a depth of approximately 7 cm. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes and after sterilization, tighten the caps. Cool the tubes immediately in an upright position. Care should be taken that the water is free from chlorine.

Principle And Interpretation

Stuart Transport media were originally designed by Stuart while studying *Gonococci* (1). Stuart et al (2) later on modified the Stuart Medium for the transportation of gonococcal specimens for culturing. Ringertz included thioglycollate in the Stuart Medium and omitted charcoal (3). This medium may be used for the transportation of many fastidious organisms including the anaerobes by maintaining organism's viability without significant multiplication (4). Crooks and Stuart (5) suggested the addition of Polymyxin B sulphate which facilitates the recovery of *Neisseria gonorrhoeae*.

This medium is chemically defined, semisolid, non-nutrient medium which prevent microbial proliferation. Because of its composition the medium ensures that microorganisms present are able to survive for a sufficiently long period of time. The medium provides adequate degree of anaerobiosis. Prepared sterile medium will undergo a slight degree of oxidation at the upper periphery of the medium. Calcium chloride alongwith sodium glycerophosphate act as good buffering agent and also maintains osmotic equilibrium in the medium.

Quality Control

Appearance

White to light yellow homogeneous free flowing powder

Gelling

Semisolid, comparable with 0.3% Agar gel.

Colour and Clarity of prepared medium

Colourless to whitish coloured slightly opalescent butt

Reaction

Reaction of 1.41% w/v aqueous solution at 25°C. pH : 7.4±0.2

pH

7.20-7.60

Cultural Response

M1131: Cultural characteristics observed after an incubation at 35-37°C for 72 hours when subcultured from Stuart Transport Medium.

Organism	Growth	Subculture Medium
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<i>Haemophilus influenzae</i> ATCC 35056	good	Chocolate Agar (incubated in CO2 atmosphere)
<i>Neisseria gonorrhoeae</i> ATCC 19424	good	Chocolate Agar (incubated in CO2 atmosphere)
<i>Streptococcus pneumoniae</i> ATCC 6303	good	Tryptone Soya Agar with 5% sheep blood

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. Stuart, 1946, Glasgow Med. J. 27:131.
2. Stuart, Toshach and Patsula, 1954, Can. J. Public Health, 45:73.
3. Ringertz, 1960, Acta Pathol. Microbiol. Scand., 48:105.
4. MacFaddin J., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.
5. Crookes E.M.L. and Stuart R.D., 1959, J. Path. Bact., 78:283.

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