

## Technical Information

### Stuart Transport Medium w/o Methylene Blue

**Product Code: DM 2131**

**Application:** - Stuart Transport Medium w/o Methylene Blue is recommended for the preservation and transportation of *Neisseria* 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

#### Principle & Interpretation

Stuart Transport media were originally formulated by Stuart while studying *Gonococci* <sup>(1)</sup>. Stuart et al <sup>(2)</sup> later on modified the Stuart Medium for the transportation of gonococcal specimens for culturing. Ringertz added thioglycollate in the Stuart Medium and removed charcoal <sup>(3)</sup> so that medium may be used for the transportation of many fastidious organisms including the anaerobes by maintaining organism's viability without significant multiplication <sup>(4)</sup>. Crooks and Stuart <sup>(5)</sup> suggested the addition of Polymyxin B sulphate to facilitate the recovery of *Neisseria gonorrhoeae* from *Clinical specimens*.

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 long 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 along with sodium glycerophosphate act as good buffering agent and also maintains osmotic equilibrium in the medium.

#### Methodology

Suspend 14 grams of powder media in 1000 ml double distilled water. Shake well & heat 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.

#### Quality Control

##### Physical 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 Range 7.20-7.60



Dehydrated Culture Media  
Bases / Media Supplements

#### Cultural Response/ characteristics

DM 2131: Cultural characteristics observed after an incubation at 35-37°C for 72 hours when subcultured from Stuart Transport Medium.

Organism	Growth	Subculture Medium
<i>Haemophilus influenzae</i> ATCC 35056	Good	Chocolate Agar (incubated in CO <sub>2</sub> atmosphere)
<i>Neisseria gonorrhoeae</i> ATCC 19424	Good	Chocolate Agar (incubated in CO <sub>2</sub> atmosphere)
<i>Streptococcus pneumoniae</i> ATCC 6303	good	Tryptone Soya Agar with 5% sheep blood

#### Storage and Shelf Life

**Dried Media:** Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

**Prepared Media:** 2-8° in sealable plastic bags for 2-5 days.

#### Further Reading

1. Stuart, 1946, Glasgow Med. J. 27:13 1.
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.

#### Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conforms solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate.
- **Central Drug House Pvt. Ltd.** reserves the right to make changes to specifications and information related to the products at any time.
- Products are not intended for human or animal diagnostic or therapeutic use but for laboratory, research or further manufacturing of diagnostic reagents extra.
- Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.
- Do not use the products if it fails to meet specifications for identity and performance parameters.

