Stuart Transport Medium

Intended Use
Stuart Transport Medium is used for collecting, transporting and preserving microbiological specimens particularly *Neisseria* species and other fastidious organisms.

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

Principle
This medium is a chemically defined, semisolid, non-nutrient medium which prevents microbial proliferation. Because of this composition the medium ensures that microorganisms present are able to survive for a sufficiently long period of time. The medium provides an adequate degree of anaerobiosis which can be monitored by means of the redox indicator methylene blue. Prepared sterile medium will undergo a slight degree of oxidation at the upper periphery of the medium; however, if the tube or vial exhibits a distinct blue colour throughout the medium, it should be discarded. Calcium chloride along with sodium glycerophosphate acts as good buffering agent and also maintains osmotic equilibrium in the medium.

Formula*

Ingredients	**g/L**
Sodium Glycerophosphate	10.0
Sodium Thioglycollate	1.0
Calcium Chloride	0.1
Methylene Blue	0.002
Agar	3.0
Final pH (at 25°C)	7.4 ± 0.2

*Adjusted to suit performance parameters

Storage and Stability
Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Specimen Collection and Handling
Ensure that all samples are properly labelled. Follow appropriate techniques for handling samples as per established guidelines. Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure. The samples must be stored and tested within the permissible time duration. After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions
1. Suspend 14.10 g of the powder in 1000 mL purified / distilled water and mix well.
2. Boil with frequent agitation to dissolve the powder completely.
3. Dispense in small screw cap bottles or vials, filling them almost to the top.
4. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.
5. Tighten the caps immediately after sterilization and cool the tubes in an upright position.

Note: The water used should be free from chlorine.

Quality Control

Dehydrated Appearance: White to light blue coloured, homogenous, free flowing powder.
Prepared Appearance: Colourless to whitish coloured, slightly opalescent butt with upper 10% or less portion blue on standing.
Cultural Response: Cultural characteristics observed after an incubation of 72 hours at 30°C-35°C, when sub-cultured from Stuart Transport Medium.

Organism (ATCC)	Growth	Subculture Medium
Neisseria gonorrhoeae (49226)	Good	Chocolate Agar*
Streptococcus pneumoniae (6303)	Good	Chocolate Agar*
Bacteroides vulgatus (8482)	Good	Soyabean Casein Digest Agar with 5% sheep blood

Key:
***** = Incubation in CO_2 atmosphere.

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:
1. Directions
2. Storage
3. Expiry

Precautions / Limitations

Due to nutritional variations, some strains may show poor growth on media.

Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

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. Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.
5. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201190360100	Dehydrated Culture Media	100 g
201190360500	Dehydrated Culture Media	500 g