

Stuart Transport Medium

Cat. 1518

For transport and maintenance of all kind of samples

Practical information

| Applications | Categories |
|--------------|-------------|
| Transport | General use |

Industry: Clinical / Transport media for samples



Principles and uses

Stuart Transport Medium is a semi-solid medium used for the transport and preservation of biological samples when immediate inoculation into a culture medium is not possible. It is a suitable medium for the cultivation of various organisms such as gonococci, streptococci, enterobacteria, etc.

It was described by Stuart in 1946, and later, it was used to preserve the viability of fastidious microorganisms such as *Neisseria* spp. or *Haemophilus influenzae*. All specimens should be transported to the laboratory as soon as possible and maintained at room temperature since chilling may be detrimental to some organisms.

Stuart Transport Medium is essentially non-nutritive; it contains sodium thioglycollate, which helps delay oxidation and allows a better recovery of anaerobics. Calcium chloride, together with sodium glycerophosphate, act as a buffering agent that maintains the osmotic balance of the medium. Methylene blue is the redox indicator; the blue color indicates the presence of oxygen. Despite the sodium thioglycollate, the medium can undergo a slight oxidation in the upper part of the tube, which acquires a blue coloration. If a distinctive blue color is observed, discard the tube.

Formula in g/L

| | | | |
|-----------------------|-------|-------------------------|-----|
| Agar N° 2 | 3 | Calcium chloride | 0,1 |
| Methylene blue | 0,002 | Sodium glycerophosphate | 10 |
| Sodium thioglycollate | 1 | | |

Preparation

Suspend 14,1 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Dispense in screw-capped tubes and sterilize in autoclave at 121 °C for 15 minutes.

Instructions for use

»For clinical diagnosis, the type of sample is any sample of clinical origin.

- Collect the sample to be analyzed with a sterile swab.
- Insert the swab into the medium and close the tube with a cap.
- Take the sample to the laboratory as soon as possible. It can be stored for up to 24 hours at room temperature.

Quality control

| Solubility | Appearance | Color of the dehydrated medium | Color of the prepared medium | Final pH (25°C) |
|------------|-------------|--------------------------------|------------------------------|-----------------|
| w/o rests | Fine powder | Cream | Blue in surface | 7,4±0,2 |

Microbiological test

Incubation conditions: (25-30 °C / 24 h).

Microorganisms

Streptococcus pyogenes ATCC 19615
Bacteroides fragilis ATCC 25285
Pseudomonas aeruginosa ATCC 27853

Specification

Good growth on Blood Agar
Good growth on Blood Agar
Good growth on Blood Agar

Storage

Temp. Min.:2 °C
Temp. Max.:25 °C

Bibliography

Beakley, J. W. 1975. The toxicity of wooden applicator sticks for Neisseria gonorrhoeae. Pub. Hith, Lab. 15 (1), 11:16.
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Stuart, R. D. 1954. Transport medium for specimens in Public Health Bacteriology. Pub. Hlth. Rep. Wash. 74(5), 431:438.