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STUART TRANSPORT MEDIUM TM 420

INTENDED USE

For preservation and transport of *Neisseria* species and other fastidious organisms

COMPOSITION

Ingredients	Gms/Ltr
Sodium glycerophosphate	10.000
Agar	3.000
Sodium thioglycollate	1.000
Calcium chloride	0.100
Methylene blue	0.002

PRODUCT SUMMARY AND EXPLANATION

STUART TRANSPORT MEDIUM is a semisolid medium used in the transport and preservation of specimens for the cultivation of diverse organisms such as gonococci, streptococci, Enterobacteriaceae, etc. The original formula was developed by Stuart for the preservation and transport of *Neisseria gonorrhoeae* and *Trichomonas vaginalis*. Later, Stuart et al. demonstrate that the medium could be used in the handling and cultivation of *Haemophilus influenzae*, alpha and beta hemolytic streptococci, pneumococci, and Enterobacteriaceae which can survive at an ambient temperature for 6 to 8 weeks. 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 prevent microbial proliferation. Because off this ccomposition the medium ensures that microorganisms present are able to survive for a sufficiently long period of time. Stuart Transport Medium suffered from overgrowth by coliforms that were capable of utilizing Sodium glycerophosphate. Calcium chloride salt is added to control the permeability of the bacterial cell wall and thus prolong their survival. Less amount of Agar is added to make medium semi solid. Sodium thioglycollate suppresses oxidative changes and provides a reduced environment. Methylene blue acts as the redox indicator, the blue color indicates the presence of oxygen and it shows an adequate degree of anaerobiosis.

INSTRUCTION FOR USE

1. Dissolve 14.10gms in 1000ml of distilled water.
2. Gently heat to boiling with gentle swirling and dissolve the medium completely.
3. Dispense desired amount if the medium in screw capped tubes.
4. Sterilize by autoclaving at 15 psi (121°C) for 15 minutes.
5. Place the tubes to cool in upright position.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder: White to light blue colour, homogeneous free flowing powder
Appearance of prepared medium: Colourless to whitish slightly opalescent semi gel, having about 10% or less portion blue on standing.
pH (at 25°C):7.4 ± 0.2

INTERPRETATION:

Following results obtained from different type of cultures kept under different temperatures (4°C and room temperature: 25°C) for up to 72 hours.

Microorganisms	ATCC	Recovery	Sub-culturing medium
Haemophilus influenzae	49247	Good	Chocolate Agar (incubated in CO_2 atmosphere)
Neisseria gonorrhoeae	19424	Good	Chocolate Agar (incubated in CO_2 atmosphere)
Streptococcus pneumoniae	6303	Good	Tryptone Soya Agar (Soya Casein Digest Agar) w/ 5% sheep blood

STORAGE & STABILITY

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°C and protect from direct Sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

REFERENCES

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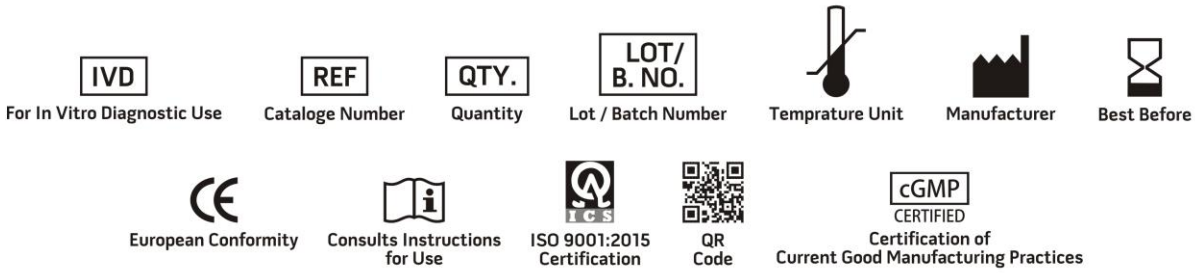

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.