Dehydrated Culture Media
Bases / Media Supplements

Technical Information

Amies Transport Medium with Charcoal

Product Code: DM 1651

Application: - Amies Transport Medium with charcoal is used for transportation clinical of clinical specimen for bacteriological investigation.

Composition**

Ingredients	Gms / Litre
Sodium chloride	3.000
Potassium chloride	0.200
Calcium chloride	0.100
Magnesium chloride	0.100
Monopotassium phosphate	0.200
Disodium phosphate	1.150
Sodium thioglycollate	1.000
Charcoal	10.000
Agar	4.000
Final pH (at 25°C)	7.2±0.2

**Formula adjusted, standardized to suit performance

Principle & Interpretation

The pre requisite of a transport medium is that it should be non-nutritive, semi-solid, reductive and should be able to hamper self-destructive enzymatic reactions within the cells and in must inhibit toxic oxidation reactions during trans portion of clinical sample. Amies [1] modified Stuart's Transport Medium [2, 3, 4] by replacing glycerophosphate with an inorganic phosphate buffer and adding charcoal to the medium. This modified medium gave a higher recovery of positive isolates than that of Stuart. tranparens medium. Amies Transport Medium provides a reduced environment due to the presence of sodium thioglycollate and small amount of agar. Charcoal helps to neutralize materials that are toxic to sensitive pathogens like *Neisseria gonorrhoeae.* Calcium magnesium, potassium and sodium salts help the survival of gonococcal cells and also control permeability of bacterial cells. Phosphates buffer the medium. For the collection of the specimens, use sterile cotton-tipped swabs or wooden sticks. Push the swab down one third of the medium depth. When the cap is screwed down, the swab is forced to the bottom of the medium. The cap should be firmly screwed. Keep the medium cool during transportation but do not freeze. The specimen will be preserved during transportation and also the viability of the organisms will be maintained which will diminish over the time. Some contaminants may also grow during longer period of transport. For optimum results, the time lapse between sample collection and inoculum onto proper culture medium should be reduced to the minimum. The cultures on transport swabs must not be kept at room temperature for more than 24 hours.

Methodology

Suspend 19.75 grams of powdered media in 1000 ml distilled water. Shake well & heat to dissolve the medium completely. Dispense in screw cap bottles or tubes in 6 ml or desired quantity. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool in an upright position. Turn the tubes several times while agar is solidifying, to maintain uniform suspension of charcoal particles.

Quality Control

Physical Appearance

Grey to black homogeneous free flowing powder

Gelling

Semisolid, comparable with 0.4% Agar gel.

Colour and Clarity of prepared medium

Black coloured opaque gel forms in tubes as butts

Reaction

Reaction of 2% w/v aqueous solution at 25°C. pH : 7.2±0.2

pH Range:- 7.00-7.40

Cultural Response/Characteristics

DM 1651: Cultural characteristics observed when subcultured on Soyabean Casein Digest Agar(DM1290) after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Recovery
Escherichia coli ATCC 25922	50-100	Luxuriant
Klebsiella pneumoniae ATCC 13883	50-100	Luxuriant
Neisseria meningitidis ATCC 13090	50-100	Luxuriant
Pseudomonas aeruginosa ATCC 27853	50-100	Luxuriant
Salmonella Typhi ATCC 6539	50-100	Luxuriant
Shigella flexneri ATCC 12022	50-100	Luxuriant
Staphylococcus aureus ATCC 25923	50-100	Luxuriant
Vibrio cholerae ATCC 15748	50-100	Luxuriant

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: 2-8^0 in sealable plastic bags for 2-5 days.

Further Reading

1. Amies C.R., 1967, Can. J. Public Health, 58:296
2. Stuart R.D., 1946, J. Path. Bact., 58:343.
3. Stuart R.D., 1959, Pub. Hlth. Rep., 74:431.
4. Stuart R.D., Toshach S.R. and Patsula T.M., 1954, Can. J. Pub. Hlth., 45:75.
5. MacFaddin J.F., 1985, Media For Isolation-Cultivation-Identification- ,,Maintenance of Medical Bacteria, Vol. 1, Williams and Wilkins, Baltimore.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform 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
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