

TM 009 – AMIES TRANSPORT MEDIUM W/ CHARCOAL

INTENDED USE

For transportation and preservation of bacteriological samples.

PRODUCT SUMMARY AND EXPLANATION

The pre requisite of a transport medium is that it should be non-nutritive, semi-solid, and reductive and should be able to hamper self-destructive enzymatic reactions within the cells and in addition, must inhibit toxic oxidation reactions. Amies modified Stuart's Transport Medium by replacing glycerophosphate with an inorganic phosphate buffer and adding charcoal to the medium. This modified medium gave a higher percentage of positive results than the transport medium of Stuart. Amies Transport Medium provides a reduced environment due to the presence of sodium thioglycollate and small amount of agar.

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. But the viability will diminish over the time. Some growth of contaminants may also occur during longer period of transport. After transportation, the specimen should be inoculated in proper medium as soon as possible. For optimum results, the time lapse between sample collection and inoculum onto 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.

COMPOSITION

Ingredients	Gms / Ltr	
Sodium chloride	3.000	
Potassium chloride	0.200	
Calcium chloride	0.100	
Magnesium chloride	0.100	
Potassium dihydrogen phosphate	0.200	
Disodium hydrogen phosphate	1.150	
Sodium thioglycollate	1.000	
Charcoal	10.000	
Agar	4.000	

PRINCIPLE

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.

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INSTRUCTION FOR USE

- Dissolve 19.75 grams in 1000 ml purified / distilled water.
- Heat to boiling to dissolve the medium completely.
- Dispense in screw cap bottles or tubes in 6 ml or desired quantity.
- Sterilize by autoclaving at 15 psi 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 SPECIFICATIONS

A- 902A, RIICO Industrial Area, Phase III, Bhiwadi-301019.



Appearance of Powder	: Grey to black homogeneous free flowing powder.
Appearance of prepared medium	: Black coloured opaque gel forms in tubes as butts.
pH (at 25°C)	: 7.2±0.2

INTERPRETATION

Cultural characteristics observed after incubation when subcultured on Soyabean Casein Digest Agar.

Microorganism	ATCC	lnoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Escherichia coli	25922	50-100	Luxuriant	35-37°C	18-24 Hours
Klebsiella pneumoniae	13883	50-100	Luxuriant	35-37°C	18-24 Hours
Neisseria meningitidis	13090	50-100	Luxuriant	35-37°C	18-24 Hours
Pseudomonas aeruginosa	27853	50-100	Luxuriant	35-37°C	18-24 Hours
Salmonella Typhi	6539	50-100	Luxuriant	35-37°C	18-24 Hours
Shigella flexneri	12022	50-100	Luxuriant	35-37°C	18-24 Hours
Staphylococcus aureus subsp. aureus	25923	50-100	Luxuriant	35-37°C	18-24 Hours
Vibrio cholerae	15748	50-100	Luxuriant	35-37°C	18-24 Hours

PACKAGING:

In pack size of 100 gm and 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°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.

Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

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REFERENCES

1. Amies C.R., 1967, Can. J. Public Health, 58:296.

- 2. MacFaddin J.F., 1985, Media For Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. 1, WilliamsandWilkins, Baltimore.
- 3. Stuart R.D., 1946, J. Path. Bact., 58:343.
- 4. Stuart R.D., 1959, Pub. Hlth. Rep., 74:431.

5. Stuart R.D., Toshach S.R. and Patsula T.M., 1954, Can. J. Pub. Hlth., 45:75.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices. *For Lab Use Only Revision: 08 Nov., 2019



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