Cary-Blair Medium

Cat. 1529

Transport medium recommended for the collection and transport of clinical specimens

Practical information

Aplications	Categories
Transport	General use

Industry: Clinical / Transport media for samples

Principles and uses

Cary-Blair Medium is recommended for the collection and transport of fecal and rectal samples, maintaining viability of Salmonella and Shigella in fecal samples. This medium has a low oxidation/reduction potential, which assures bacterial survival for long periods of time.

Cary-Blair Medium has a low nutrient content and a phosphate buffer, together with the Sodium thioglycollate, that inhibit the massive growth of strains such as Escherichia coli and Klebsiella aerogenes. Agar Nº2 is the solidifying agent.

Due to its high pH, Cary-Blair Medium has been described as especially good for epidemiological studies of Vibrio parahemolyticus, allowing long-term survival (up to 35 days at temperatures from 22 - 31°C) of rectal swabs. Long recovery times have been reported for Pasteurella pestis (75 days) as well as for Salmonellae and Shigellae (49 days).
Cotton swabs placed at the bottom of the transport medium tube are used for the collection of the samples.

Formula in g/L

Agar N° 2	5,5	Calcium chloride	0,09
Disodium phosphate	1,1	Sodium chloride	5
Sodium thioglicollate	1,5		

Preparation

Suspend 13.2 grams of the medium in one liter of distilled water. Mix well. Heat with frequent agitation and boil until completely dissolved. Dispense into screw-capped test tubes and place in flowing steam for 15 minutes. Allow to cool at room temperature and tighten the caps to avoid water loss.

Instructions for use

- Inoculate sterile swabs with suspensions of test organisms containing 1000 - 10000 CFU / 0.1ml.
- Place in the medium and incubate at room temperature for up to 72 hours.
- Remove swabs and streak on prepared Trypticasein Soy Agar (Cat. 1068) with defibrinated blood.

The survival of bacteria in a transport medium depends on various factors such as bacteria type and concentration in the specimen, transport medium formulation, and transport temperature and duration.
Optimal growth and typical morphology can only be expected if direct inoculation and appropriate cultivation are followed.

Quality control

Solubility	Appareance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25ºC)
w/o rests	Fine powder	Beige	White opalescent	8,4 ± 0,2

Microbiological test

Incubation conditions: (25 ºC / 72 h)

Microrganisms	Specification

Shigella flexneri ATCC 12022	Good growth
Neisseria meningitidis ATCC 13090	Good growth
Haemophilus influenzae ATTC 19418	Good growth
Neisseria gonorrhoeae ATCC 19424	Good growth
Streptococcus pneumoniae ATCC 6301	Good growth
Bordetella pertussis ATCC 9340	Good growth

Storage

Temp. Min.:2 ºC
Temp. Max.:25 ºC

Bibliography

Cary, S.G. and E.B. Blair 1964. New transport medium for shipment of clinical specimens. J. Bacteriol.
Cary, S.G., M.S. Mathew, M.H. Fusillo, and C. Hasking 1965 Survival of Shigella and Salmonella in a new transport medium. Am. J. Clin. Path.