

Cary-Blair Transport Medium

Transport medium recommended for the collection, preservation and transportation of microbiological specimens

REF: BS.1/CB01.100.0100	100 Gram	REF: BS.1/CB01.250.0250	250 Gram
REF: BS.1/CB01.500.0500	500 Gram		

CLINICAL SIGNIFICANCE

Cary-Blair transport medium is non-nutritive to avoid increasing in number of the microorganism, chemically defined, semisolid, buffered medium. The only purpose of this medium is to maintain the viability of microorganisms during the time from collection to examination of the specimen. It is used for the transportation of clinical specimens suspected to contain enteric pathogens, including *Shigella*, *Salmonella*, *Vibrio cholerae*, and *Escherichia coli*.

METHOD PRINCIPLE

Sodium chloride and calcium chloride levels in the medium help in controlling cell permeability and provide an osmotic balance environment for the preservation of viable bacterial cells. Sodium thioglycollate provides a low oxidation-reduction potential. In addition, disodium hydrogen phosphate acts as a buffer by helping in maintaining a stable pH and preventing pH fluxes that may be detrimental to the microorganisms present in the clinical specimens. Alkaline pH of the medium minimizes bacterial destruction due to the formation of acid. Since this transport medium has a high pH (8.4), the viability of *Vibrio* cultures can be maintained for a longer period of time and it is considered as the medium of choice for transportation and preservation of *Vibrio cholerae*.

MEDIA COMPOSITION

Item	Formula per liter of medium
Disodium hydrogen phosphate	1.1 gm
Sodium thioglycollate	1.5 gm
Sodium Chloride	5 gm
Calcium Chloride	0.09 gm
Agar	5.6 gm

PRECAUTIONS AND WARNINGS

Media to be handled by entitled and professionally educated person. Do not ingest or inhale.

Good Laboratories practices using appropriate precautions should be followed in:

- Wearing personnel protective equipment (overall, gloves, glasses,).
- Do not pipette by mouth.
- In case of contact with eyes or skin; rinse immediately with plenty of soap and water. In case of severe injuries; seek medical advice immediately.
- Respect country requirement for waste disposal.
S56: dispose of this material and its container at hazardous or special waste collection point.
S57: use appropriate container to avoid environmental contamination.
S61: avoid release in environment.

For further information, refer to the Cary-Blair Transport Medium material safety data sheet.

STORAGE AND STABILITY

BioScien Cary-Blair Transport Medium should be stored between 10-30°C in a firmly closed container and the prepared medium at 2-8°C or at room temperature (22-25°C) for up to 19 months. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to avoid lump development due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in a dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

Final pH 8.4±0.2 at 25°C

PREPARATION

Suspend 13.3 gm in 1 liter of distilled water and bring gently to the boil to dissolve the agar. Dispense the medium in 7ml amounts in screw-cap bottles of 9 ml capacity. Sterilize by steaming with caps loosened (**do not autoclave**) at 100°C for 15 minutes. Allow to cool and tighten the screw caps to prevent water loss and label the bottles. Store in a cool dark place with the bottle tops screwed tightly.

Deterioration

The color of **BioScien** Cary-Blair Transport Medium is off-white homogeneous free flowing powder. Prepared Media is light amber in color. If there are any physical changes for powder or signs of deterioration (shrinking, cracking, or discoloration), and contaminations for hydrated media, discard the medium.

SPECIMEN

Clinical pathological specimens

EQUIPMENT REQUIRED NOT PROVIDED

- Sterile screw-cap bottles
- Incubator
- Autoclave

Performance Characteristics

Cultural characteristics observed after incubation at 35 - 37°C for 18 - 48 hours on subculture.

Microorganism	Growth
<i>Klebsiella pneumoniae</i> (ATCC 13883)	Good-Luxuriant
<i>Shigella flexneri</i> (ATCC 12022)	Good-Luxuriant
<i>Neisseria meningitidis</i> (ATCC 13090)	Good-Luxuriant
<i>Escherichia coli</i> (ATCC 25922)	Good-Luxuriant
<i>Salmonella Typhimurium</i> (ATCC 14028)	Good-Luxuriant
<i>Vibrio cholerae</i> (ATCC 15748)	Good-Luxuriant
<i>Vibrio parahaemolyticus</i> (ATCC 17802)	Good-Luxuriant

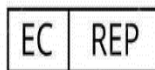
QUALITY CONTROL

To ensure adequate quality control, it is recommended that positive and negative control included in each run. If control values are found outside the defined range, check the system performance. If control still out of range please contact **BioScien** technical support.

REFERENCES

1. Cary and Blair, 1964, J. Bacteriol., 88:96.
2. Vanderzant C. and Splittstoesser D. F., (Eds.), 1992, Compendium of Methods for the Microbiological Examination of Foods, 3rd Ed., APHA, Washington, D.C.
3. Cary, Mathew, Fusillo and Harkins, 1965, Am. J. Clin. Pathol., 43:294
5. Gaines et al, 1965, Am. J. Trop. Med. Hyg., 14:136.
4. Garcia, L.S. 2010. Clinical Microbiology Procedures Handbook. 3rd ed. ASM Press, Washington D.C.
5. Wells, J.G. and G.K. Morris. 1981. J. Clin. Microbiol. 13:789- 791.
6. Versalovic, J., K.C. Carroll, G. Funke, J.H. Jorgensen, M.L. Landry, and D.W. Warnock. 2011. Manual of Clinical Microbiology. 10th ed. ASM Press, Washington, D.C.

SYMBOLS IN PRODUCT LABELLING	
 For in-vitro diagnostic use	 Number of <n> test in the pack
 Batch Code/Lot number	 Caution
 Catalogue Number	 Do not use if package is damaged
 Temperature Limitation	 Consult Instruction for use
 Expiration Date	
 Manufactured by	



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