

Cary and Blair Transport Medium (i23282)

Used for collecting, transporting and preserving microbiological Specimens, particularly those containing *Vibrio cholerae*.

Industry: Transport Media / Clinical

Principles & Uses

Cary-Blair Medium, particularly without charcoal, serves as a transport medium for clinical specimens, preserving the viability of microorganisms without promoting multiplication. Sodium thioglycollate is a key component, providing a low oxidation-reduction potential, while the alkaline pH minimizes bacterial destruction due to acid formation. This medium, notably low in nutrients, includes a phosphate buffer and agar, inhibiting excessive growth of certain strains like *Escherichia coli* and *Klebsiella aerogenes*.

Cary-Blair, a non-nutritive, semisolid, buffered solution, is Developed by Stuart et al, Cary and Blair later enhanced it with fewer nutrients, low oxidation-reduction potential, and high pH. This medium, recommended by APHA, supports the extended viability of *Vibrio* cultures and aids in recovering *Salmonella* and *Shigella* species.

Composition (gr/L)

Sodium Thioglycollate 1.5 g, Disodium Phosphate 1.1 g, Sodium Chloride 5 g, Agar 5 g.

Final pH of 12.6 g/991 mL Solution at 25°C: 8.0 ± 0.5

Preparation from dehydrated Powder

Suspend 12.6 g of the powder in 991 mL of purified water. Mix thoroughly. Heat with frequent agitation and boil for 1 minute to completely dissolve the powder. Cool to 50°C and add 9 mL of 1% aqueous calcium chloride. Adjust the pH to approximately 8.4, if necessary. Dispense in 7 mL amounts in 9 mL screw-capped test tubes. Steam for 15 minutes. Cool. Tighten caps.

Quality Control

Dehydrated Appearance: Fine, homogeneous, free of extraneous material.

Prepared Appearance: Light to medium, gray, hazy to cloudy.

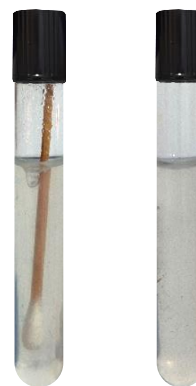
Reaction of 12.6 gr / 991 ml Solution at 25°C: pH 8.4 ± 0.2

Cultural Response

Inoculate sterile swabs with heavy suspensions of the test organisms. Place in the medium and incubate at 25 ± 2°C for 18-24 hours. Remove swabs, streak on TSA with 5% sheep blood plates or Chocolate II agar plates for (**) organisms and incubate plates at 35 ± 2°C for 18-24 hours under appropriate atmospheric conditions.

Organism (ATCC*)	Recovery
<i>Haemophilus influenzae</i> ** (10211)	Good
<i>Neisseria gonorrhoeae</i> ** (19424)	Good
<i>Shigella flexneri</i> (9199)	Good
<i>Streptococcus pneumoniae</i> (6305)	Good

*ATCC is a registered trade mark of the American Type Culture Collection.



Culture medium inoculated with a swab specimen (left). Prepared Culture Media (right).

Storage

Keep the container at 15-30 °C. Store prepared medium at 2-8 °C.