



CARY BLAIR TRANSPORT MEDIUM w/ INDICATOR

INTENDED USE

Remel Cary Blair Transport Medium with Indicator is a liquid medium recommended for use in qualitative procedures for the transportation, preservation, and examination of stool specimens for enteric pathogens.

SUMMARY AND EXPLANATION

Many pathogenic enteric bacteria rapidly lose viability in patient stool specimens, unless they are cultured promptly after collection.^{1,2} In 1954, Stuart et al. devised the first widely used transport medium.³ In 1964, Cary and Blair developed a new formulation for the transport of fecal specimens. This medium possessed a low nutrient content, a low oxidation-reduction potential, and a high pH. Cary et al. found this medium to be successful in recovering *Shigella* and *Salmonella*.⁴ Luechtefeld et al. further modified this formulation to enhance the recovery of *Campylobacter* spp. by reducing the agar content.^{5,6} This medium is also recommended for the transport of *Yersinia* species and *Vibrio parahaemolyticus*.^{7,8}

PRINCIPLE

Cary Blair Transport Medium with Indicator is an isotonic and non-nutritive medium, which does not contain a fermentable carbohydrate. Sodium thioglycollate is added to impede oxidation. Disodium phosphate is incorporated in the medium to act as a buffering agent, which prevents overgrowth of *Escherichia coli* and *Enterobacter* species. The relatively high pH minimizes the destruction of bacteria due to acid formation. Phenol red, a pH indicator, is added to demonstrate acidic shifts that can affect the viability of some enteric pathogens.

REAGENTS (CLASSICAL FORMULA)*

Sodium Chloride	5.0 g
Sodium Thioglycollate	1.5 g
Disodium Phosphate	1.1 g
Calcium Chloride.....	0.09 g
Phenol Red Indicator.....	0.003 g
Agar	1.6 g
DeminerIALIZED water	1000.0 ml

pH 7.2 – 8.5 @ 25°C

*Adjusted as required to meet performance standards.

PRECAUTIONS

This product is for *In Vitro* diagnostic use and should be used by properly trained individuals. Precautions should be taken against the dangers of microbiological hazards by properly sterilizing specimens, containers, and media after use. Directions should be read and followed carefully.

STORAGE

This product is ready for use and no further preparation is necessary. Store product in its original container at room temperature until used. Do not freeze or overheat.

PRODUCT DETERIORATION

This product should not be used if (1) the color has changed, (2) the expiration date has passed, or (3) there are other signs of deterioration.

SPECIMEN COLLECTION, STORAGE, AND TRANSPORT

Refer to collection instruction sheet included with this product. Specimens should be collected and handled following recommended guidelines.^{9,10}

MATERIALS REQUIRED BUT NOT SUPPLIED

(1) Loop sterilization device, (2) Inoculating loop, swabs, collection containers, (3) Incubators, alternative environmental systems, (4) Supplemental media, (5) Quality control organisms.

PROCEDURE

Collect specimens following recommended guidelines.⁹

Swab Specimens:

1. Remove cap and immerse swab into the medium.
2. Break swab shaft evenly with the lip of the vial.
3. Replace cap and tighten.
4. Label with appropriate patient information.
5. Submit the vial to the laboratory for processing. Follow established laboratory procedures during transport and prior to processing.

Fecal Specimens:

1. Remove cap and place approximately one gram of the fecal specimen into the medium.
2. Replace cap and tighten.
3. Agitate the vial to permit adequate mixing of the specimen with the transport medium.
4. Label with appropriate patient information.
5. Submit the vial to the laboratory for processing. Follow established laboratory procedures during transport and prior to processing.

INTERPRETATION OF THE TEST

This transport medium serves as a vehicle for maintaining the viability of enteric bacterial pathogens during transport and storage.

QUALITY CONTROL

All lot numbers of Cary Blair Transport Medium with Indicator have been tested using the following quality control organisms and have been found to be acceptable. Testing of control organisms should be performed in accordance with established laboratory quality control procedures. If aberrant quality control results are noted, patient results should not be reported.

CONTROL	INCUBATION	RESULTS
<i>Campylobacter jejuni</i> ATCC® 33291	Microaerophilic, up to 72h @ 40-42°C	Good recovery on subculture
<i>Salmonella enterica</i> serovar Typhimurium ATCC® 14028	Ambient, 18-24h @ 33-37°C	Good recovery on subculture
<i>Shigella flexneri</i> ATCC® 12022	Ambient, 18-24h @ 33-37°C	Good recovery on subculture

LIMITATIONS

1. This medium is intended for use as a transport medium and should not be used as an enrichment medium or for long term storage.
2. Specimens collected after antibiotic therapy has been initiated may be contraindicated for successful recovery of organisms.
3. Some stool specimens may be highly acidic and will overcome the buffering capacity of this medium. This will cause the red indicator to shift to a yellow color. Discard the medium if it has turned yellow and request another specimen.
4. Transport and storage of fecal specimens at 2-8°C are very important for the recovery of certain enteric pathogens (e.g., *Shigella*, *Campylobacter*).⁹
5. Avoid contamination of specimen with urine.

BIBLIOGRAPHY




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PACKAGING

Cary Blair Transport Medium with Indicator:

- REF R21610 15 ml/Vial, 12 Vials/Pk
- REF R21925 15 ml/Vial, 120 Vials/Pk

Symbol Legend

REF	Catalog Number
IVD	In Vitro Diagnostic Medical Device
LAB	For Laboratory Use
	Consult Instructions for Use (IFU)
	Temperature Limitation (Storage Temp.)
LOT	Batch Code (Lot Number)
	Use By (Expiration Date)

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