

B.C.P. (Broth)*For microbiological control only*

For the detection and enumeration of coliform bacteria in water samples

SUMMARY AND EXPLANATION

Purple lactose broth (B.C.P.) is used in foodstuffs microbiology, essentially for water analysis. (1,2)

PRINCIPLE

This medium allows the detection and enumeration of coliforms, characterized by lactose fermentation and gas production.

CONTENT OF THE KIT

Ready-to-use medium	
<u>Single concentration</u>	
REF AEB110452	Pack of 20 tubes of 10 ml
REF AEB110459	Pack of 100 tubes of 10 ml
BPC*	
<u>Double concentration</u>	
REF AEB110462	Pack of 20 tubes of 10 ml
BCP2*	

*: Printed on the container

COMPOSITION**Theoretical formula – Single concentration**

This medium can be adjusted and/or supplemented according to the performance criteria required:

Peptone	5.00 g
Meat extract	3.00 g
Lactose	5.00 g
Bromocresol purple.....	0.025 g
Purified water.....	1000 ml

pH: 6.7

Theoretical formula – Double concentration

This medium can be adjusted and/or supplemented according to the performance criteria required:

Peptone	10.00 g
Meat extract	6.00 g
Lactose	10.00 g
Bromocresol purple.....	0.050 g
Purified water.....	1000 ml

pH: 6.7

REAGENTS AND MATERIAL REQUIRED BUT NOT PROVIDED**Reagents:**

- Diulent (ex: Peptone salt Ref. AEB611498 / Ref. AEB111499)
- Brilliant green broth (L.B.G.B.B. ex: Ref. AEB110509)

Material:

- Bacteriology incubator.

WARNINGS AND PRECAUTIONS

- **For microbiological control only.**
- **For professional use only.**
- This kit contains products of animal origin. Certified knowledge of the origin and/or sanitary state of the animals does not totally guarantee the absence of transmissible pathogenic agents. It is therefore recommended that these products be treated as potentially infectious, and handled observing the usual safety precautions (do not ingest or inhale).
- All specimens, microbial cultures and inoculated products should be considered infectious and handled

appropriately. Aseptic technique and usual precautions for handling the bacterial group studied should be observed throughout this procedure. Refer to "CLSI® M29-A, *Protection of Laboratory Workers from Occupationally Acquired Infections; Approved Guideline – Current Revision*". For additional information on handling precautions, refer to "Biosafety in Microbiological and Biomedical Laboratories – CDC/NIH – Latest edition", or the current regulations in the country of use.

- Culture media should not be used as manufacturing material or components.
- Do not use reagents past the expiry date.
- Do not use reagents if the packaging is damaged.
- Do not use tubes which show signs of contamination.
- The medium must be used according to the procedure indicated in this package insert. Any change or modification in the procedure may affect the results.

STORAGE CONDITIONS

- **Store the tubes at 2-25°C in their box until the expiry date.**

SPECIMENS

Follow the recommendations in the current standards to perform specimen collection and preparation.

INSTRUCTIONS FOR USE**Protocol according to NF T90-413 :****Double concentration**

1. Inoculate 3 tubes with 10 ml of sample to be tested.

Single concentration

2. Inoculate 3 tubes with 1 ml of sample to be tested. Repeat this step with the decimal dilutions.
3. Incubate all the tubes at 30°C ± 1°C for 24 hours or 48 hours if necessary.

READING AND INTERPRETATION

Purple lactose broth allows to highlight:

- lactose fermentation, detected by the pH indicator turning to yellow due to the acid production.
- gas production, captured in Durham tubes.

All tubes giving signs of typical growth, acid and gas production, have to undergo confirmation tests.

CONFIRMATION TESTS

For the detection of coliforms :

From each positive tube, inoculate a loop in a tube of Lactose Brilliant Green Bile Broth (L.B.G.B.B.) with Durham tube. Incubate at 37°C for 48 hours.

For the detection of faecal coliforms :

From each positive tube, inoculate a loop in a tube of Lactose Brilliant Green Bile Broth (L.B.G.B.B.) with Durham tube or in Schubert medium. For the indole test (revealing *Escherichia coli*), a tube of peptone water without indole can be also inoculated. Incubate immediately these tubes in water bath at 44°C for 48 h (L.B.G.B.B. and peptone water) or 24 h (Schubert).

Positive tubes show a turbidity and gas production in the Durham tube. Carry out indole test by addition of

Kovac's reagent in the Schubert tube or the peptone water tube.

	Gaz	Indole
<i>Escherichia coli</i>	+	+
Other <i>Enterobacteria</i>	-/+	-

QUALITY CONTROL

The B.C.P. (Broth) has been designed and developed to meet the strictest quality requirements.

The results obtained using strains tested during controls for bacteriological activity are shown on the quality control certificate for each batch, available from our website (www.biomerieux.com).

WASTE DISPOSAL

Unused reagents may be considered as non hazardous waste and disposed of accordingly.








Dispose of all used reagents as well as any other contaminated disposable materials following procedures for infectious or potentially infectious products.

It is the responsibility of each laboratory to handle waste and effluents produced according to their nature and degree of hazardousness and to treat and dispose of them (or have them treated and disposed of) in accordance with any applicable regulations.

LITERATURE REFERENCES

- MacKenzie E.F.N., Taylor E.N. and Gilbert W.E. 1948. Recent experiences in the rapid identification of *E. coli* type. I. J. Gen. Microbiol. 2:197-204.
- AFNOR T90-413 Octobre 1985. Essais des eaux - Recherche et dénombrement des coliformes et des coliformes thermotolérants. Méthode générale par ensemencement.

INDEX OF SYMBOLS

Symbol	Meaning
	Catalogue number
	Fabricant
	Temperature limit
	Use by date
	Batch code
	Consult Instructions for Use
	Quality control certificate Batch conform to current Quality Control Protocol

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