REF 42 608

10639 **C** - GB - 2005/07

Lactose broth (LACT-F)

For microbiological control only

Diluent for the detection of Enterobacteriaceae and other Gram-negative bacteria.

SUMMARY AND EXPLANATION

Lactose broth conforms to the specifications of the D medium of the European Pharmacopoeia (1). It also complies with the USP (2).
According to the European Pharmacopoeia, it is used as a diluent for non-sterile pharmaceutical products for the detection of Enterobacteriaceae and other Gram-negative bacteria.
According to the USP, it is used as a diluent for the detection of *Escherichia coli* and *Salmonella*.
Lactose broth is also described by the APHA (3) for analysis of water, food and dairy products. It is used for the detection of coliforms and in the study of lactose fermentation by unfastidious bacteria.

PRINCIPLE

The 2 peptones and lactose in the medium increase the viability of the Enterobacteriaceae and other Gram-negative bacteria.
The detection of bacteria is thus encouraged by a revivification step in Lactose broth.

CONTENT OF THE KIT

	Ready-to-use medium
REF **42 608**	6 x 90 ml bottles

COMPOSITION

Theoretical formula.

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

Meat extract (bovine)	3 g
Pancreatic gelatin hydroysate (bovine or porcine)	5 g
Lactose (bovine)	5 g
Purified water	1 l

pH 6.9

REAGENTS AND MATERIAL REQUIRED BUT NOT PROVIDED

Reagents:

- Mossel broth (Ref. 42 621)
- VRBGL agar (Ref. 43 271)

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 "NCCLS M29-A, *Protection of Laboratory Workers from Instrument Biohazards and Infectious Disease Transmitted by Blood, Body Fluids, and Tissue; 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 bottles which show signs of contamination.
- When the medium is used for the first time, make sure the tamper-proof seal of the bottle stopper is intact.
- The medium should 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 bottles in their boxes at 2-25°C until the expiry date.**

SPECIMENS

Follow the recommendations of the European Pharmacopoeia or the USP to perform specimen preparation.

INSTRUCTIONS FOR USE

Detection of Enterobacteriaceae and other Gram-negative bacteria:

Follow the method described in the European Pharmacopoeia.

1. Prepare a 1/10 dilution of the test sample in Lactose broth (e.g. 10 g or 10 ml of test sample in 90 ml of Lactose broth).
2. Homogenize.
3. Incubate at 35-37°C for a length of time sufficient for revivification of the bacteria (generally 2 hours but no more than 5 hours).
4. Homogenize and take 1 g or 1 ml of sample (or 10 ml according to the previous example = homogenate A).
5. Transfer 10 ml of homogenate A into a bottle of Mossel broth.
6. Incubate for 18-48 hours at 35-37° C.

Subcultures should be prepared on VRBGL agar: see the instructions for use in the corresponding package insert.

Detection of *Salmonella* and *E. coli*:

Refer to the method described in the USP.

QUALITY CONTROL

Lactose broth is designed and developed to meet the strictest quality requirements.
The results of the strains tested in the batch by batch quality control are given on the quality control certificate available on request.

LIMITATIONS OF THE METHOD

- Given the wide variety of specimens tested, it is the responsibility of the user to validate this broth for its specific intended use.

WASTE DISPOSAL

Dispose of used and unused 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

1. European pharmacopoeia 4.7
2. USP XXVII (2004).
3. APHA – Standard methods for the examination of dairy products – 17th edition, 1992

INDEX OF SYMBOLS

Symbol	Meaning
REF or **REF**	GB : Catalogue number US : Catalog number
	Manufacturer
	Temperature limitation
	Use by
LOT	Batch code
	Consult Instructions for Use

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