LYSINE DECARBOXYLASE BROTH **REF. PS 793E**

For the identification of microorganisms, especially enteric bacilli based on the decarboxylation of lysine.

Formula in g/L

Yeast extract	3,00	L-Lysine hydrochloride	5,00
Dextrose	1,00	Bromocresol purple	0,02

Final pH at 25°C: 6,8 ± 0,2

Principle:

This medium is used to detect and differentiate Enterobacteriaceae from other microorganisms, based on lysine decarboxylation.
The growth nutrients are provided by gelatin peptone and yeast extract. Glucose is the fermentable carbohydrate. Bromocresol purple is the ph indicator.
The Enterobacteriaceae produce acid in the intial fermentation of glukose chaining the indicator to yellow. The bacteria that decarboxylate the L-Lysine to cadaverine are identified by the presence of a purple – red colour due the elevation of the pH. A yellow colour after 24 hours indicates a negative result.

Preparation: suspend 9 of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation until completely dissolution. Dispense into test tubes and sterilize in autoclave at 121°C for 15 minutes.
The prepared medium should be stored at 2-8°C.

Procedure:

- ★ The tubes inoculated with the microorganisms samples
- ★ Incubated at 37±1°C for 18- 24 hours

Results:

- ★ Purple – red colour of the medium after incubation - positive
- ★ Yellow colour of the medium after incubation - negative

Storage / Shelf life

- ★ Once opened keep powdered medium closed to avoid hydration at 2 - 30°C
- ★ The expiration date is indicated on the label.

Microbiological test
The following results were obtained in the performance of the medium from type cultures after incubaction at a temperature of 37±1°C and observed after 18-24 hours

Microorganisms	Lysine decarboxylation
Salmonella Typhimurium ATCC 13048	+
Cirtobacter freundii ATCC 8090	-

Packaging: 500 g

IVD CE

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