

## LACTOSE BROTH

## (EUROPEAN PHARMACOPOEIA – ISTISAN 96/35)

Medium for coliform organisms detection in water, foods, dairy and pharmaceutical products.

### DESCRIPTION

Recommended for the detection of coliform bacteria in water, foods, dairy and pharmaceutical products.

### PRINCIPLE

Meat extract and peptone are a source of aminoacids and proteins. Lactose is a source of energy and constitutes the substrate of fermentation by lactose fermenting microorganisms.

COMPOSITION	g/L
Meat Extract	3.0
Peptone	5.0
Lactose	5.0

Final pH 6,9 ± 0,2 at 25°C

### WARNING AND PRECAUTIONS

#### For in vitro diagnostic use.

Observe the precautions normally taken when handling laboratory reagents.

**Dehydrated medium: HIGHLY HYGROSCOPIC.** During the handling, wear dust protection mask. Avoid the eye contact. Do not use beyond the expiration date or if the product shows signs of deterioration, an altered color or has compacted.

**Prepared Medium:** The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous.

**Safety Data Sheet** is available on request for professional users.

All waste must be disposed of according to local directives.

### STORAGE AND STABILITY

<b>Dehydrated medium:</b>	10-30°C
<b>Prepared medium:</b>	10-25°C

The product is stable until the expiration date indicated on the label under the recommended storage conditions.

### PREPARATION

Suspend 13.0 grams in 1000 ml purified/ distilled water. Heat if necessary to dissolve the medium completely. For larger inocula (10 ml or more), concentrated medium may be prepared to account for medium dilution by the inoculum. Dispense in tubes containing inverted fermentation vial (Durham tube) as desired. Sterilize by autoclaving at 121°C for 15 minutes.

### PROCEDURE

1. Before use keep the tubes of Lactose Broth at room temperature or at 36+/-1°C.
2. Open the tubes immediately before inoculating.
3. Introduce 1 g or 1 ml of the specimen into the tube.
4. Mix as necessary to obtain a homogeneous suspension.
5. Turn once the tube to let air go out from the Durham tube.
6. Incubate at 36+/-1°C for 24-48 hours.

### RESULTS

Turbidity in the broth is the sign of bacterial growth. Production of gas is evident in the Durham tube.

### QUALITY CONTROL

**Dehydrated medium:** Cream to yellow homogeneous free flowing powder.

**Prepared medium:** Light amber, clear without precipitates.

Typical response after incubation at 36±1°C for 24-48 hours:

MICROORGANISM	GROWTH-GAS
Escherichia coli ATCC 25922	Luxuriant (+)
Enterobacter cloacae ATCC 13047	Luxuriant (+)
Citrobacter freundii ATCC 43864	Luxuriant (+)
Salmonella Typhimurium ATCC 14028	Good (-)
Enterococcus faecalis ATCC 29212	Good (-)

### REFERENCES

- Hausler, W.J. 1972. Standard Methods for the Examination of Dairy Products. 13 th Ed. Washington D.C. American Public Health Association.
- American Public Health Association. 1975. Standard Methods for the Examination of Water and Wastewater. 14 th Ed Washington D.C.
- Rodier, J. 1984. L'analyse de l'eau. Dénombrement des coliformes fécaux et Escherichia coli présumés. Dunod 7ème Ed, 793- 798.
- NF T 90-413: October 1985. Testing water. Detection and enumeration of coliforms and thermotolerant coliforms. General method by culture in liquid media (MPN).
- Pharmacopée française (French). Janvier 1986. Contrôle de la contamination microbienne dans les produits non obligatoirement stériles. Solution et milieux de culture recommandés. VIII. 10.
- United States Pharmacopeia 23. 1995. Microbial Limit Tests, 1681-1686. - Dif.

PRESENTATION	Packaging	REF
<b>Dehydrated medium</b>		
<b>LACTOSE BROTH</b>	<b>100 g</b>	<b>11093</b>
	<b>500 g</b>	<b>10093</b>
	(38.4 L)	
<b>Prepared medium</b>		
<b>LACTOSE BROTH</b>	<b>6 x 200 mL bottles</b>	<b>63274</b>
<b>LACTOSE BROTH + Lecithin + Tween 80</b>	<b>6 x 100 mL bottles</b>	<b>63710</b>
<b>LACTOSE BROTH</b>	<b>20 x 10 mL Durham Tubes</b>	<b>5050/20</b>
<b>LACTOSE BROTH 2x</b>	<b>20 x 10 mL Durham Tubes</b>	<b>5051/20P</b>

### SYMBOLS

	Read the instructions		Biological hazard
	CE Mark (product complies with the requirements of Regulation (EU) 746/2017)		
	Temperature limitation		Use by
	For in vitro diagnostic use		Manufacturer