

Lactose Gelatin Medium



Medium used for the identification and determination of *Clostridium perfringens* on the basis of lactose fermentation and gelatin liquefaction.

• CONTENTS (Liter)

Gelatin	120.0 g
Yeast Extract	10.0 g
Tryptose	15.0 g
Lactose	10.0 g
Phenol Red	0.05 g
Final pH = 7.5 ± 0.2 at 25°C	

• PROCEDURE

Suspend 155.05 G of powder in 1 L of distilled or deionized water. Heat to boiling until completely dissolved. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45 - 50°C in water bath. Mix well. Pour into tubes.

• INTERPRETATION

Lactose Gelatin Medium is a medium used for the identification and determination of *Clostridium perfringens* on the basis of lactose fermentation and gelatin liquefaction. Gelatin is hydrolyzed by *Clostridium perfringens* to read the results of gelatin liquefaction. Yeast extract and tryptose provide the nitrogen and vitamin sources. Lactose is a carbohydrate source. During lactose fermentation, fermenting bacteria acidify the medium. Because of this, a pH of the medium drops and phenol red acts as a pH indicator. In result, lactose fermenting organisms cultivate with the color change of medium to yellow.

• TECHNIC

Inoculate the specimen using a sterile needle to the medium. Incubate at 35 ± 2°C for 24 - 48 hours under anaerobic condition. Gelatin liquefies at above 20°C. If tubes are incubated at 35°C, they must be kept in a refrigerator for about 2 hours to interpret the results. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium

Appearance: free-flowing, homogeneous

Color: beige

Prepared medium

Appearance: opalescent

Color: red

Incubation conditions: 35 ± 2°C / 24 - 48 hours under anaerobic condition

Microorganism	ATCC	Growth	Lactose fermentation	Gelatin liquefaction
<i>Clostridium perfringens</i>	13124	good	+ (yellow)	+
<i>Clostridium sporogenes</i>	11437	good	- (orange)	+
<i>Clostridium sporogenes</i>	19404	good	- (orange)	+

• STORE

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label. Store prepared medium at 2 - 8°C.

• REFERENCES

1. APHA. 3rd Edition Compendium of methods for the microbiological examination of foods.
2. Métodos Analíticos del Laboratorio del Instituto Nacional del Consumo (CICC). Alimento I Ministerio de Sanidad y Consumo 1.999.
3. Department of Health NHS Executive: The Caldicott Committee. Report on the review of patient identifiable information. London. December 1997.

• PACKAGE

Cat. No : MB-L0634 Lactose Gelatin Medium	500 G
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