

## LACTOSE GELATIN MEDIUM

Dehydrated medium for the identification of *C. perfringens* by lactose and gelatin test (ISO 7937)

TYPICAL FORMULA	(g/l)
Casamino Acids	15.0
Yeast Extract	10.0
Lactose	10.0
Phenol Red	0.05
Gelatin	120.0
Final pH 7.5 ± 0.2 at 25°C	

### DESCRIPTION

LACTOSE GELATIN MEDIUM is a dehydrated medium recommended for the identification of *C. perfringens* by lactose and gelatin test according to ISO 7937.

### PRINCIPLE

Casamino acids is a hydrochloric acid hydrolysate of casein which supplies a completely hydrolyzed protein nitrogen source. Yeast extract provide nitrogen, vitamins, minerals and amino acids. Lactose is the fermentable carbohydrate, producing acid indicated by the phenol red indicator. Phenol red changes to yellow when acid is produced and to red when the medium becomes alkaline. Gelatin is a protein derived by hydrolysis of collagen used to determine gelatinolysis by bacteria. The gelatinase produced by the microorganisms hydrolyze the gelatin liquefying the solid medium.

### PREPARATION

Suspend 155 g of powder in 1000 ml of distilled water. Heat until completely dissolved. Dispense 10 ml portions into test tubes and sterilize in autoclave at 121°C for 15 minutes. If not used the same day, store the prepared medium at 2-8°C. Just before to use, heat in boiling water or flowing steam for 15 minutes, then cool rapidly to the incubation temperature.

### TECHNIQUE

Inoculate selected colony and incubate at 35 ± 2°C for 24-48 hours under anaerobic conditions. Examine the tubes for the presence of gas and yellow colour (due to acid formation) indicating lactose fermentation. To read gelatinase, refrigerate until well chilled and compare to non-inoculated tubes. Tubes positive for gelatinase will remain liquid.

### INTERPRETATION OF RESULTS

The isolated colonies which are not motile, reduce nitrate, ferment lactose and produce liquefaction of gelatine in 48 hours are presumptively identified as *Clostridium perfringens*. (Note: not all *Clostridium perfringens* strains reduce nitrate to nitrite).

### STORAGE

The powder is very hygroscopic, store the powder at 10-30°C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared plates at 2-8°C away from light.

### WARNING AND PRECAUTIONS

The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. It is nevertheless recommended to consult the safety data sheet for its correct use. The product must be used only by properly trained operators.

### DISPOSAL OF WASTE

Disposal of waste must be carried out according to national and local regulations in force.

### REFERENCES

1. ISO 7937:2004. Microbiology of foods and animal feeding stuff – Horizontal method for the enumeration of *C. perfringens*. Colony Count Technique.



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## PRODUCT SPECIFICATIONS

### NAME

LACTOSE GELATIN MEDIUM

### PRESENTATION

Dehydrated medium

### STORAGE

10-30°C

### PACKAGE

Ref.	Content	Packaging
610360	500 g	500 g of powder in plastic bottle

### pH OF THE MEDIUM

7.5 ± 0.2

### USE

LACTOSE GELATIN MEDIUM is a dehydrated medium recommended for the identification of *C. perfringens* by lactose and gelatin test according to ISO 7937

### TECHNIQUE

Refer to technical sheet of the product

### APPEARANCE OF THE MEDIUM

#### Dehydrated medium

Appearance: free-flowing, homogeneous

Colour: red

#### Prepared medium

Appearance: slightly opalescent

Colour: dark red

### SHELF LIFE

4 years

### QUALITY CONTROL

- Control of general characteristics, label and print
- Microbiological control  
Inoculum for productivity: 10-100 CFU/ml  
Inoculum for selectivity: 10<sup>4</sup>-10<sup>5</sup> CFU/ml  
Inoculum for specificity: ≤10<sup>4</sup> CFU/ml  
Incubation conditions: 24-48 h at 36 ± 1°C









### Microorganism

### Color change to yellow and gas production

### Gelatinase

<i>Clostridium perfringens</i> ATCC 13124	+	+
<i>Clostridium sporogenes</i> ATCC 25781	-	+

### TABLE OF SYMBOLS

 Batch code	 Keep away from heat sources	 Manufacturer	 Use by
 Catalogue number	 Temperature limitation	 Contains sufficient for <n> tests	 Consult instruction for use



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