



Reference : 03-632

Scharlau Microbiology - Technical data sheet

Product :
LACTOSE GELATIN MEDIUM

Specification

Solid medium used for the biochemical confirmation of *Clostridium perfringens*, according to ISO 7937 standard.

Formula * in g/L

Tryptone.....	15,00
Yeast Extract.....	10,00
Lactose.....	10,00
Gelatin.....	120,00
Phenol red.....	0,05

Final pH 7,50 ±0,2 at 25 °C

* Adjusted and /or supplemented as required to meet performance criteria

Directions

Dissolve 155 g of powder in 1 L distilled water, heating if necessary. Adjust pH to 7.5 ± 0.2 (add 10-15 ml of sodium carbonate solution at 10%). Dispense in tubes in suitable volumes and sterilize at 121°C for 15 minutes. If not used the same day, store in the refrigerator. Just prior to use heat in a boiling water bath or flowing steam for 15 minutes, then cool rapidly to the incubation temperature. Discard unused medium 1 month after preparation. Note: Before preparing the medium, shake the container vigorously until the powder is homogeneous. The different granulometry of gelatin, can cause disaggregation of the medium in transport.

Description

This medium with the Nitrate Motility Medium (Art. No. 03-612) are used in the confirmation technique for *Clostridium perfringens* according to the 7937:2004 ISO Standard.

Technique

Inoculate each selected colony from the Tryptose-Sulfite-Cicloserine Agar into the Lactose Gélatinee Medium and incubate under anaerobic conditions for 24 hours à 37°C. Examine the tubes of Lactose Gélatinee Medium for the presence of gas and a yellow colour due to acid formation indicating fermentation of lactose. Chill the tubes for 1 hour à $5 \pm 3^\circ\text{C}$ and check for Gélatinee liquefaction. If the medium has solidified, re-incubate for an additional 24 hours and again check for Gélatinee liquefaction.

Interpretation

Non-motile bacteria that produce black colonies in Tryptose Sulfite Cicloserine Agar liquefy Gélatinee in 48 hours are considered to be *Clostridium perfringens*.

Cultures that show a faint reaction for nitrite should be eliminated, since *C. perfringens* consistently gives an intense and immediate reaction.



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Quality control

Incubation temperature: 35°C ±2,0

Incubation time: 24 h

Inoculum: Pure cultures using and inoculating needle

Microorganism

Staphylococcus aureus ATCC® 25923

Escherichia coli ATCC® 25922

Clostridium perfringens ATCC® 10543

Clostridium perfringens ATCC® 13124

Clostridium sporogenes ATCC® 11437

Growth

Poor

Good

Good

Good

Good

Remarks

-

-

L (+) Gas (+) Gelatinase (+)

L (+) Gas (+) Gelatinase (+)

L (+) Gas (D) Gelatinase (+)



Left : Uninoculated tube (Control)
Center: *Clostridium sporogenes* ATCC 11437
Right: *Clostridium perfringens* ATCC 10543

References

- ISO 7937 Standard (2004) Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of *Clostridium perfringens* - Colony count technique.

Storage

For laboratory use only. Keep tightly closed, away from bright light, in a cool dry place (+4 °C to 30 °C).