

LACTOSE SULFITE MEDIUM

Powdered medium for the identification of *C.perfringens*
by lactose fermentation and sulfite reduction tests (ISO 7937)

TYPICAL FORMULA (g/L)

Enzymatic Digest of Casein	5
Yeast Extract	2.5
Sodium chloride	2.5
Lactose	10
L-cysteine hydrochloride	0.3
Disodium disulfite anhydrous	0.750
Ammonium iron (III) citrate	0.625

DIRECTIONS

Suspend 21.7 g in 1000 mL of cold distilled water. Gently heat to dissolve completely. Dispense 9 mL portions into test tubes with inverted Durham tubes and sterilise by autoclaving at 121 °C for 15 minutes. Use the medium within a day. Final pH 7.1 ± 0.2

DESCRIPTION

Lactose Sulfite (LS) Medium is prepared according to the formulation described by ISO 7937. It is recommended for the identification of *C.perfringens* by lactose fermentation and sulfite reduction tests. The reaction obtained in Lactose Sulfite Medium when incubated at 46 °C is very specific for *C.perfringens* and *C.absonum*. It is therefore not necessary to ensure that the black colonies picked from the agar are pure before inoculation into the thioglycollate broth and subsequently into the Lactose Sulfite Medium.

TECHNIQUE

Inoculate each selected colony into Thioglycollate Medium (REF 402137). Incubate under anaerobic conditions at 37 °C for 18 h to 24 h.

After incubation, transfer with no delay 5 drops of the thioglycollate culture to the LS Medium by means of a sterile pipette. Incubate aerobically at 46 °C for 18 h to 24 h in the water bath.

Examine the tubes of LS medium for the production of gas and the presence of a black colour (iron sulfite precipitate). Durham tubes more than one-quarter full of gas and tubes having a black precipitate are considered positive.

In case of doubt, when the Durham tube in a blackened medium is less than one-quarter full of gas, transfer with no delay, using a sterile pipette, 5 drops of the previous growth in LS medium to another tube of LS medium. Incubate in the water bath at 46 °C for 18 h to 24 h. Examine this tube as described above.

Bacteria which form characteristic colonies in the TSC Medium and which give a positive confirmation with the LS medium are considered as being *C. perfringens*. In all other cases, the tubes should be considered as negative.

User quality assurance (37°C- 48 h)

C.perfringens ATCC 13124: growth with gas production into Durham tubes, presence of a black colour

STORAGE

Store the dehydrated medium at 10-30°
Use the prepared tubes within the day

REFERENCE

• ISO 7937:2004 - Microbiology of foods and animal feeding stuffs - Horizontal method for the enumeration of *C.perfringens*. Colony Count Technique.

PACKAGING

4015792

Lactose Sulfite Medium

500g (23.2 L)