Condalab

**Reference:** 6020 **Technical Data Sheet**

**Product:** **CLOSTRIDIUM PERFRINGENS SUPPLEMENT (TSC)**

## Specification

A sterile selective supplement used for isolation and presumptive identification of *Clostridium perfringens*, according to ISO 7937 and ISO 14189, and other regulations.

## Presentation

| | Packaging Details | Shelf Life | Storage |
|---|---|---|---|
| 10 vials<br>Vial<br>with: 6 ± 0.1 g | 22±0.25 x 55±0.5 mm glass vials, tag labelled, White plastic cap - 10 vials per box. | 49 months | 2-25 ºC |

## Composition

Compositon (g/vial)

D-Cycloserine..... 0.200

Note: each vial is sufficient to supplement 500 ml of medium. TSC Agar Base.

Reconstitute the original freeze-dried vial by adding
Sterile Distilled Water.....6 ml

## Description /Technique

Description:

D-cycloserine selective supplement is added to TSC Agar in order to obtain a final selective medium which has the advantage to simplify the counting of plates with high numbers of colonies because smaller colonies of *C.perfringrens* are formed.
Sodium metabisulphite and ferric ammonium citrate are used as an indicator of sulphite reduction made by *Clostridium perfringens* spp. that produce black colonies in TSC agar.

Technique:

Collect, dilute and prepare samples and volumes as required according to specifications, directives, official standard regulations and/or expected results.
Reconstitute the vial in aseptic conditions and add it to 500 ml of melted Agar base cooled to 50ºC.
Do not overheat once suplemented.
Pour the complete medium into Petri dishes (or tubes) and, once solidified on a flat surface, spread the plates either by streaking by spiral method or dilution banc.
Incubate the plates in anaerobic atmosphere at 35 ± 2ºC for 24-24h. To obtain a more selective medium, incubated at 44 ° C ± 1.
Incubation times longer than those mentioned above or different incubation temperatures may be requied depending on the sample or the specifications.
After incubation, count all the colonies that have appeared onto the surface of the agar.
*C.perfingrens* grows in black colonies, due to the iron sulfide precipitation.
Presumptive isolation of *Clostridium perfringens* must be confirmed by further microbiological and biochemical tests.

## Quality control

### Physical/Chemical control

Color : White-Gray pH: at 25ºC

### Microbiological control

Reconstitute 1 vial as indicated in COMPOSITION; shake and dissolve completely
Add 1 vial to 500 ml of medium base. DO NOT HEAT once supplemented.
Analytical methodology according to ISO 11133:2014/A1:2018; A2:2020
Anaerobiosis. Incubation at 44 ± 1 ºC during 21 ± 3h.

| Microorganism | Growth |
|---|---|
| *Clostridium perfringens ATCC® 13124, WDCM 00007, NCTC® 8237* | Good - black colonies |
| *Clostridium perfringens ATCC® 10543, WDCM 00174* | Good - black colonies |
| *Bacillus subtilis ATCC® 6633, WDCM 00003* | Inhibited |

### Sterility Control

Add 5ml of the sample to 100 ml of TSB and to 100 ml Thioglycollate.
Incubation 48 hours at 30-35 ºC and 48 hours at 20-25 ºC: NO GROWTH.
Check at 7 days after incubation in same conditions.

## Bibliography

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