Reference: 06-744LYO1 **Scharlau Microbiology - Technical Data**

Product: # MUP + Cycloserine Selective Supplement

Specification

A sterile selective supplement used for isolation and presumptive identification of *Clostridium perfringens*, by using Fluorogenic Substrates.

Presentation

	Packaging Details	Shelf Life	Storage
10 Freeze dried vials Vial with: 6 ± 0.1 g	23x60 mm glass vials, tag labelled, White plastic cap - 10 vials per box.	49 months	2-25 ºC

Composition

Compositon (g/vial)

4-Methylumbelliferyl phosphate.....0.025
D-Cycloserine.....0.100

Note : Each vial is sufficient to supplement 250 ml of medium TSC Agar.

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

Description /Technique

Description:

MUP (4-methylumbelliferyl phosphate) + D- Cycloserine Selective Supplement is added to TSC Agar (Base) 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* that produce black colonies in TSC agar (44±1ºC). The addition of MUP (4-methylumbelliferyl phosphate), demonstrates the ability of *C. perfringens* using this fluorogenic substrate.

Technique:

Collect, dilute and prepare samples and volumes as required according to specifications, directives, official standard regulations and/or expected results.
Reconstitute the vial with 6 ml of sterile diluent in aseptic conditions and add it to 250 ml of melted Agar TSC cooled to 50ºC (previously reconstituted as instructed by the Base).
Do not overheat once suplemented.
Pour the complete medium into Petri dishes and inoculate by MF Methods.
Incubate the plates in anaerobic atmosphere at 44 ± 1ºC for 21±3h.
After incubation, count all the colonies that have appeared onto the surface of MF.
C.perfingrens grows in black colonies, due to the iron sulfide precipitation and Fluorescence positive, undr UV ligth (365 nm).

Quality control

Physical/Chemical control

Color : White-Gray

Microbiological control

Reconstitute 1 vial as indicated in COMPOSITION; shake and dissolve completely

Add to 250 ml TSC Agar

Analytical methodology according to ISO 11133:2014/A1:2018; A2:2020.

Anaerobiosis. Incubation at 44 ± 1 ºC during 21 ± 3h.

Microbiological control according to ISO 11133:2014/A1:2018.

Microorganism	Growth
Clostridium perfringens ATCC® 13124, WDCM 00007, NCTC® 8237	Good≥50% - Black colonies- Fluorescent
Clostridium perfringens ATCC® 10543, WDCM 00174	Good≥50% - Black colonies- Fluorescent
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 h at 30-35 ºC and 48 h at 20-25 ºC: NO GROWTH.
Check at 7 days after incubation in same conditions.

Bibliography

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