

Specification

A sterile selective supplement used for *E.coli/Coliform* isolation.

Presentation

10 Freeze dried vials
Vial
with: 3 ± 0.1 g

Packaging Details

$22 \pm 0.25 \times 55 \pm 0.5$ mm glass vials, tag labelled, White plastic cap - 10 vials per box.

Shelf Life

49 months

Storage

2-25 °C

Composition

Compositon (g/vial)

Cefsulodin.....0.0025
Vancomycin.....0.0025

NOTE : Each vial is sufficient to supplement 500 ml of medium Base: Chromogenic coliforms agar.

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

Description /Technique

Description:

The final purpose of this supplement is increase the selectivity of Chromogenic coliform Agar in order to detect total coliforms and *E. coli* in water and food samples. Cefsulodin and Vancomycin suppress all the accompanying microbiota, especially *Pseudomonas and Aeromonas spp.*

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 the sterile diluent in aseptic conditions and add it to 500 ml of melted Agar base cooled to 50°C.

Do not overheat once supplemented.

Pour the complete medium into Petri dishes and, once solidified on a flat surface, spread the plates either by streaking or by spiral method.

Incubate the plates in aerobic atmosphere at $35 \pm 2^\circ\text{C}$ for 24-48h.

(incubation at $44 \pm 0.5^\circ\text{C}$ increases the selectivity of the medium and the specificity for *E.coli* isolation)

After incubation, count all the colonies that have appeared onto the surface of the agar, observing colour development when using a chromogenic base:

E. coli produces a dark blue to violet colonies due to the possession of two enzymes that cleaves the chromogenic substances.

Coliforms bacteria have only one enzyme so they can cleave only a substrate producing salmon/red colonies.

Total coliforms are the sum of *E. coli* colonies plus the salmon-red colonies.

Presumptive isolation of *E.coli / Coliforms* must be confirmed by further microbiological and biochemical tests.

Quality control**Physical/Chemical control**

Color : White-Gray pH: at 25°C

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.

Distribute the complete medium, cooled to 50 °C, into 90 mm plates

Incubate according instructions for complete medium indicated in COMPOSITION.

Aerobiosis. Incubation at 35 ± 2 °C, reading at 24-48 hours.

Microorganism*Escherichia coli* ATCC® 25922, WDCM 00013*Salmonella typhimurium* ATCC® 14028, WDCM 00031*Enterococcus faecalis* ATCC® 29212, WDCM 00087*Stph. aureus* ATCC® 25923, WDCM 00034*Ps. aeruginosa* ATCC® 27853**Growth**

Good

Good

Inhibited

Inhibited

Inhibited

Sterility Control

100 ml TSB and 100 ml Thioglycollate.

Incubation 48 hours at 30-35 °C and 48 hours at 20-25 °C: NO GROWTH.

Check at 7 days after incubation in same conditions.

Bibliography

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