



Reference: 06-140LYO1

Scharlau Microbiology - Technical Data

Product: Coliform CV Selective Supplement

Specification

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

Presentation

| | Packaging Details | Shelf Life | Storage |
|--|--|------------|---------|
| 10 Freeze dried vials Vial with: 3 ± 0.1 g | 23x60 mm glass vials, tag labelled, White plastic cap - 10 vials per box. | 49 months | 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 ± 2°C for 24-48h.

ncubation at 44±0.5 °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.



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Quality control

Physical/Chemical control

Color : White-Gray

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.

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

Growth

Escherichia coli ATCC® 25922, WDCM 00013

Good

Salmonella typhimurium ATCC® 14028, WDCM 00031

Good

Enterococcus faecalis ATCC® 29212, WDCM 00087

Inhibited

Stph. aureus ATCC® 25923, WDCM 00034

Inhibited

Ps. aeruginosa ATCC® 27853, WDCM 00025

Inhibited

Sterility control

100 ml TSB and 100 ml Thioglycollate.

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

Check at 7 days after incubation in same conditions.

Bibliography

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- ISO 7704 Standard (1985) Water Quality - Evaluation of membrane filters used for microbiological analyses.
- KILIAN, M. & P. BÜLOW (1976) Rapid Diagnostic of Enterobacteriaceae. I. Detection of bacterial glycosidases. *Acta Pathol. Microbiol. Scand. Sect. B* 84:245-251.
- MANAFI, M & W. KNEIFEL (1989) A combined chromogenic-fluorogenic medium for the simultaneous detection of total coliform and *E. coli* in water. *Zentralbl. Hyg.* 189:225-234.
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