Reference: 06-017LYO1 **Scharlau Microbiology - Technical Data**

Product: # Brilliant Green + Novobiocin Selective Supplement

Specification

Sterile selective supplement used for *Salmonella* isolation, according to ISO.

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 ºC

Composition

Compositon (g/vial)

Novobiocin	0.0200
Brilliant Green	0.0050

Reconstitute the original freeze-dried vial by adding:

Ethanol / Distilled water (3:3)	6 ml

NOTE : Each vial is sufficient to supplement 500ml of Muller Kauffmann medium Base.

Description /Technique

Description:

Novobiocin+Brillant green selective supplement is added to Muller-Kauffmann Tetrationate medium base in order to obtain a complete medium for the enrichment of enteric or intestinal pathogens, and for all the members of *Salmonella* type.
Usually this medium is used for the analisys of polluted samples, like faeces, urine, waste water and others.

MKTTn was developed by Muller and later modified by Kauffmann with the addition of ox bile and brilliant green to improve selectivity. The addition of novobiocin was later described by Jeffries to improve inhibition of Proteus species.

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 6ml sterile diluent in aseptic conditions and add it to 500 ml of Muller Kauffmann Medium Base cooled to 50ºC, previously added with Iodine solution.....4 g / l and Potassium iodide solution.....5 g / l.
Do not overheat once suplemented.

Pour the complete medium into tubes and inoculate it.
Incubate the tubes in aerobic atmosphere at 35 ± 2ºC, lectura a las 18-24 horas.

Incubation times longer than those mentioned above or different incubation temperatures may be required depending on the sample or the specifications.

After incubation, observe turbidity appearing in the tubes.
Subculture any confirmatory, secondary medium by streaking methodology or by spiral method, like , BGA, XLD, Hektoen...for Salmonella isolation.

Enumerate all the colonies that have appeared onto the surface of the agar.
Presumptive isolation of *Salmonella sp.* must be confirmed by further microbiological and biochemical tests.

Product: **Brilliant Green + Novobiocin Selective Supplement**

Quality control

Physical/Chemical control

Color : Green

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 ºC, into 10 ml tubes

Aerobiosis. Incubation at 37 ± 1 ºC, reading after 24 ± 3 h

Microorganism	Growth
Enterococcus faecalis ATCC® 29212, WDCM 00087	Inhibition. Confirm in TSA at 37ºC±1 reading 24 ± 3h.
Escherichia coli ATCC® 8739, WDCM 00012	Partially Inhibited ; ≤ 100 CFU Recovery in TSA
S. typhimurium (14028) + E. coli (8739) + Ps. (27853)	*Salmonella* coln. charact. in XLD (37ºC±1 / 24 ± 3h) ≥ 10
S. enteritidis (13076) + E. coli (8739) + Ps. (27853)	*Salmonella* coln. charact. in XLD (37ºC±1 / 24 ± 3h) ≥ 10

Sterility control

Add 5 ml of the sample to:
100 ml TSB and 100 ml Thioglycollate.
Incubation 48 h at 30-35 ºC and 48 h at 20-25 ºC: NO GROWTH.

Bibliography

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