

Specification

Sterile selective supplement used for *Listeria* enrichment according to ISO 11290-1:2006.

Presentation

	Packaging Details	Shelf Life	Storage
10 Freeze dried vials Vial with: 3 ± 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°C

Composition

Composition (mg/vial)

Nalidixic acid. sodium salt..... 2.25 mg
Acriflavine..... 2.81 mg
Ammonium ferric citrate 112.50 mg

Note : Each vial is sufficient to
supplement for 225 ml of medium base

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

Description /Technique

Description:

This supplement is added in Fraser broth base in order to obtain a selective complete medium for the isolation of *Listeria spp.*
The inclusion of lithium chloride inhibits the development of enterococci which also may hydrolyze esculin in the same way of *Listeria*.
Thus, any darkness in the medium produced by the reaction of esculin coming from esculin hydrolysis with iron present in the medium can be taken as a presumptive presence of *Listeria*.
Moreover, it seems the ferric citrate helps *L. monocytogenes* development.

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 the sterile diluent in aseptic conditions and add it to 225 ml of sterilized Fraser Broth base cooled to 50°C.

Do not overheat once supplemented.

Pour the complete medium into tubes and inoculate.

Incubate the tubes in aerobic atmosphere at 35 ± 2°C for 24-48h.

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

After incubation, the isolation is carried out on the Oxford Selective Agar or any other selective agar for *Listeria spp.*, observing any blackening of the medium due to esculin hydrolysis, typical for *Listeria strains*.

Quality control

Physical/Chemical control

Color : Dark Orange - Brown - pH: at 25°C

Microbiological control

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

Add 1 vial to 225/ 250 ml of medium base. DO NOT HEAT once supplemented

Aerobiosis. Incubation at 30 ± 1 °C during 18-24 h

Microorganism

Escherichia coli ATCC® 8739, WDCM 00012

Enterococcus faecalis ATCC® 19433, WDCM 00009

L. monocytogenes ATCC® 13932, WDCM 00021

L. monocytogenes ATCC® 35152, WDCM 00109

Growth

Inhibited. Confirm in TSA at 37°C±1 reading 24 ± 3h

Partial Inhibition. Confirm in TSA at 37°C±1 reading 24 ± 3h.

Good. Black medium. Positive esculine

Good. Black medium. Positive esculine

Sterility Control

Add 5ml of the sample to

100ml TSB and 100ml Thioglycollate

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

Bibliography

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