Condalab

Reference: 6003 **Technical Data Sheet**

Product: **OXFORD LISTERIA SELECTIVE SUPPLEMENT**

CE IVD

Specification

Sterile selective supplement used for *Listeria* isolation in food samples.

Presentation

	Packaging Details	Shelf Life	Storage
10 Freeze-dried vials Vial with: 9 ± 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 ºC

Composition

Compositon (g/vial)

Cyclohexymide	0.2000
Colistin sulphate	0.0100
Acriflavine	0.0025
Cefotetan	0.0010
Phosphomycin sodium salt	0.0050

NOTE: Each vial is enough to supplement 500ml of OXFORD medium Base.

Reconstitute the original freeze-dried vial by adding:
Sterile solvent (50% Ethanol/water).....9 ml

Description /Technique

Description:
Listeria Agar Base Oxford (Cat. 1133) is a selective medium for Listeria according to the Oxford formula and it is recommended for the detection of Listeria monocytogenes from clinical samples and food products. It is used for a direct sample inoculation or for confirmation after using Listeria Enrichment Broth Base (Cat.1120).
All Listeria species hydrolyze the esculin to esculetin, which reacts with the iron ions producing black colonies and a blackening of the medium. Another advantage of this medium is that peptones and maize starch provides a rich nutrient base for growth, and the addition of Ferric ammonium citrate improves the growth of L. monocytogenes. Lithium chloride is an inhibiting agent, together with the other antibiotics from the supplement, which inhibit the growth of gram-negative bacteria and a large part of Gram-positive ones. Cycloheximide inhibits yeasts.

Technique:
Aseptically reconstitute 1 vial with 9 ml of 1:1 sterile distilled water/Ethanol. Mix gently until complete dissolution. Aseptically add to 500 ml of Listeria Agar Base Oxford (Cat. 1133), autoclaved and cooled to 50 ºC. Mix well and distribute into sterile containers.

Instructions for use:
For clinical diagnosis, the type of sample is amniotic fluid.
- Inoculate on the surface making parallel striae with the handle or hyssop. - Incubate in aerobic conditions at 37 ºC for 48 hours.
- Reading and interpretation of the results.
For the detection and enumeration of Listeria monocytogenes and Listeria spp. according to ISO 11290:
- Weigh 25 g (or 25 ml) of the sample and add 225 ml of 1/2 Fraser Broth (Cat. 1183). Homogenize and incubate at 30 ºC for 25±1 hours.
- Inoculate 0,1 ml of culture of the 1/2 Fraser Broth incubated (independently of the color) in 10 ml of Fraser Broth (Cat.1182). Incubate at 37 ºC for 24±2 hours under aerobic conditions.
- The primary enrichment culture is inoculated on the Listeria Agar surface according to Ottaviani and Agosti (Cat. 1345) and in another selective medium of the laboratory (Oxford), to obtain the well separated colonies.
- From the secondary enrichment culture, repeat the procedure, inoculate the surface of the Listeria Agar according to Ottaviani and Agosti (Cat. 1345) and the Oxford Agar. Incubate for a total of 48±2 h.
- Select presumptive colonies and carry out confirmatory tests for L. monocytogenes or Listeria spp.
Although typical colonies of L. monocytogenes are almost always visible after 24 hours of incubation, the incubation should be continued for a further 24 hours to obtain strains of slower growth.

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Quality control

Physical/Chemical control

Color : Yellow- orangey pH: at 25ºC

Microbiological control

Distribute the complete medium, cooled at 50ºC, in plates

Inoculate: Practical range 100 ± 20 CFU. min. 50 CFU (productivity)/ 10^4-10^6 (selectivity).

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

Microorganism	Growth
Escherichia coli ATCC® 25922, WDCM 00013	Inhibited
L. monocytogenes ATCC® 13932, WDCM 00021	Good - Esculin Positive reaction
Listeria monocytogenes ATCC® 35152	Good - Esculin Positive reaction
Enterococcus faecalis ATCC® 29212, WDCM 00087	Inhibited

Sterility Control

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

Bibliography

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. ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.

· ISO 11290 standard (1996) Microbiology of food and animal feeding stuff. Horizontal method for the detection and enumeration of Listeria monocytogenes. Part 1 - Detection method. Part 2 - Enumeration method.

· ISO 11290-1:2017 Standard. Microbiology of the food chain. Horizontal method for the detection and enumeration of Listeria monocytogenes and for Listeria spp.- Part 1: Detection Method

· ISO 11290-2:2017 Standard. Microbiology of the food chain. Horizontal method for the detection and enumeration of Listeria monocytogenes and for Listeria spp.- Part 2: Enumeration Method

· VANDERZANT, C. & D.F. SPLITTSTOESSER (1992) Compendium of methods for the microbiological examination of foods. APHA. Washington DC.

. UNE-EN ISO 11133 (2014). Microbiología de los alimentos para consumo humano, alimentación animal y agua.-Preparación, producción, conservación y ensayos de rendimiento de los medios de cultivo.

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