Listeria Enrichment Broth (LEB) acc. to FDA/IDF-FIL

For the selective enrichment of Listeria.

Mode of Action

The formulation of the broth is a modified Tryptic Soy (CASO) Broth with additional 6 g/litre of yeast extract.

The inhibition of undesired accompanying flora is achieved by the addition of acriflavin HCl, cycloheximide and nalidixic acid.

In contrary to Listeria Enrichment Broth (Base) (Merck Cat. No. 1.11951.) this broth already contains the antibiotic substances.

Typical Composition (g/litre)

Peptone from casein 17.0; peptone from soymeal 3.0; D(+) glucose 2.5; sodium chloride 5.0; di-potassium hydrogen phosphate 2.5; yeast extract 6.0; acriflavine 0.010; cycloheximide 0.05; nalidixic acid 0.04.

Preparation

Suspend 36.1 g in 1 litre of demin. water and autoclave (15 min at 121 °C).

pH: 7.3 ± 0.2 at 25 °C.

The prepared broth is clear and yellowish-brown.

Experimental Procedure

The broth is inoculated with the sample (usually 25 g or 25 ml sample into 225 ml broth).

Incubation: up to 48 hours at 30 °C aerobically.

Afterwards 0.1 ml of the broth are streaked on a Listeria Selective Agar, e.g. PALCAM Agar and/or OXFORD Agar, for separated colonies.

Literature

LOVETT J., FRANCIS D.W., a HUNT J.M.: **- J. Food Protection, 50**; 188-192 (1987)

LOVETT J., HITCHINS, A.D.: FDA Federal Register, 53;X 44148-44153 (1988)

AJELLO, G., HAYES, P., a FEELEY, J.: Abstracts of the Annual Meeting, A.S.M., Washington DC, P 5 (1986)

FDA Bacteriological Analytical Manual; 8th ed. (1995), chapter 10.

Ordering Information

Product	Merck Cat. No.	Pack size
Listeria Enrichment Broth (LEB) acc. to FDA/IDF-FIL	1.10549.0500	500 g
Listeria Enrichment Broth (LEB) acc. to FDA/IDF-FIL	1.10549.5000	5 kg
OXFORD Listeria Selective Agar (Base)	1.07004.0500	500 g
OXFORD Listeria Selective Supplement	1.07006.0001	1 x 13 vials
PALCAM Listeria Selective Agar (Base)	1.11755.0500	500 g
PALCAM Listeria Selective Supplement acc. to VAN NETTEN et al.	1.12122.0001	1 x 16 vials

Quality control

Test strains	cfu/ml after 24 hours	Growth
Listeria monocytogenes ATCC 19114	$\geq 10^4$	good
Listeria monocytogenes ATCC 13932	$> 10^4$	good
Listeria monocytogenes ATCC 35152	$> 10^4$	good
Listeria innocua ATCC 33090	$> 10^4$	good
Staphylococcus aureus ATCC 25923	$< 10^3$	fair
Enterococcus faecalis ATCC 19433	$< 10^3$	fair