

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

For the selective enrichment of *Listeria* according to FIL/IDF Standard 143 (1990) and FDA/BAM (1992).

Mode of Action

The Enrichment Broth is based on the formulation of Casein-peptone Soymeal-peptone Broth (**k** CASO Broth) with additional 6 g/litre yeast extract. The inhibition of the common bacteria is achieved by the addition of selective supplements, e.g. *Listeria* Selective Supplement acc. to IDF-FIL (Cat. No. 1.11781.0001) or *Listeria* Selective Supplement acc. to FDA (Cat. No. 1.11883.0001).

Typical Composition (g/litre)

Peptone from casein 17.0; peptone from soymeal 3.0; D(+)glucose 2.5; sodium chloride 5.0; potassium dihydrogen phosphate 2.5 (CASO-broth); yeast extract 6.0.

Preparation

Suspend 18 g in 500 ml of distilled water, autoclave (15 min at 121 °C). Dissolve the lyophilisate of 1 vial *Listeria*-Enrichment-Supplement (Cat. No. 1.11781.0001 or 1.11883.0001) by adding of 1 ml sterile distilled water. Mix gently and add the contents to the Enrichment Broth cooled to under 50 °C.

pH: 7.3 ± 0.2 at 25 °C.

The prepared broth is clear and brown.

Experimental Procedure and Evaluation

Inoculate *Listeria*-Enrichment Broth (usually add 25 g test portion of the sample to 225 ml broth) and incubate 48 h in total at 30 °C aerobically.

Streak about 0.1 ml Enrichment Broth on a *Listeria*-Selective-Agar plate, e.g. PALCAM-Agar (Cat. No. 1.11755.0500) or Oxford-Agar (Cat. No. 1.07004.0500), in a way that single colonies are well isolated.

Quality control

Test strains	Growth
<i>Listeria monocytogenes</i> ATCC 19118	good / very good
<i>Listeria monocytogenes</i> ATCC 13932	good / very good
<i>Listeria monocytogenes</i> ATCC 7973	good / very good
<i>Listeria innocua</i> ATCC 33090	good / very good
<i>Staphylococcus aureus</i> ATCC 25923	good / very good
<i>Escherichia coli</i> ATCC 25922	none
<i>Enterococcus faecalis</i> ATCC 19433	good / very good

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**: 44148-44153 (1988).

IDF Standard 143: Milk and Milk products; detection of *Listeria monocytogenes* (1990).

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

Ordering Information

Product	Merck Cat. No.	Pack size
<i>Listeria</i> Enrichment Broth (LEB) Base acc. to FDA (IDF-FIL)	1.11951.0500	500 g
<i>Listeria</i> Selective Enrichment Supplement acc. to FDA-BAM	1.11781.0001	1 x 16 vials
<i>Listeria</i> Selective Enrichment Supplement acc. to FDA-BAM 1992	1.11883.0001	1 x 16 vials