LISTERIA BUFFERED ENRICHMENT BROTH

Selective buffered enrichment broth for detection of *Listeria* spp.

Typical formula (g/lt)

Tryptic Soy Broth	30.000
Yeast Extract	6.000
Potassium Dihydrogen Phosphate	1.350
Dipotassium Hydrogen Phosphate	9.600
Cycloheximide	0.050
Nalidixic Acid	0.040
Acriflavin HCl	0.015

Directions

Suspend 47g in 1000 ml of cold distilled water. Heat to dissolve, distribute and sterilise by autoclaving at 115°C for 15 minutes.
pH 7.2 ± 0.2

Description

Listeria Buffered Enrichment Broth is based on the typical formulation described by J.Lovett for the enrichment *of L. monocytogenes* in foodstuffs modified by increasing its buffering strength. Preliminary collaborative and other studies showed that the degree of buffering is not crucial in a 2-day enrichment when conventional isolation and identification methods are used. Nevertheless, rapid DNA probe methods require more stringent control of pH to counteract effects of competitors.
It contains cycloheximide, acriflavine and nalidixic acid as antibacterial and antifungal drugs. Because all these agents are thermostable they are included in the powdered medium and can be sterilised by autoclaving (Martindale the extra pharmacopoeia, 1982, Haley et al. 1980).

Technique

Add 25g of sample to 225ml of Listeria Buffered Enrichment. Blend until the test portion is thoroughly dispersed. Incubate the inoculated enrichment medium for 48hrs at 30°C. Streak a loopful of the enrichment culture onto a surface of the ALOA Agar plate (code 401605) or PALCAM Agar Plate (code 401604) and Oxford Agar Plate (code 401600). Incubate at 37°C for 24 hours. Examine for the presence of typical colonies. Carry on with suitable identification tests.
Note: Techniques for the detection of *Listeria* in foods vary, depending on material under examination and local laws. Refer to various compendia or to national regulations for the complete procedures.

User quality assurance (37°C-24 h)
Productivity control
L.monocytogenes ATCC 19111: growth
Selectivity control
S.aureus ATCC 25923: inhibited

Storage

Dehydrated medium: 10-30°C
User prepared tubes: 7days at 2-8°C

References

• FDA (1995) Bacteriological Analytical Manual, 8th ed. Revision A, 1998. Published by AOAC International.
• Lovett, J., Francis D.W. and Hunt J.M. (1987) J. Food Prot. **50**,188-192

Packaging

401601B1	**Listeria Buffered Enrichment,**	**100 g (2.1 l)**
401601B2	**Listeria Buffered Enrichment,**	**500 g (10,5 l)**
401601B4	**Listeria Buffered Enrichment,**	**5 kg (105 l)**