



LISTERIA FRASER BROTH BASE ISO 11290-1

Cat: 1182

Enrichment medium for detection and isolation of *Listeria* in food and environmental samples.

FORMULA IN GRAMS PER LITER

Tryptone.....	5.00	Meat Peptone.....	5.00
Beef Extract.....	5.00	Yeast Extract.....	5.00
Sodium Chloride.....	20.00	Disodium Phosphate.....	12.00
Monopotassium Phosphate.....	1.30	Esculin.....	1.00
Lithium Chloride.....	3.00	Nalidixic Acid.....	0.020
Acridflavin.....	0.025		

Final pH 7.2 ± 0.2 at 25°C

Preparation

Suspend 28.7 grams of medium in 500 ml. of distilled water. Heat with frequent agitation until the medium is completely dissolved. Sterilize in autoclave at 115°C for 15 minutes. A slight precipitate may appear. Add aseptically the supplement. Mix well and distribute into sterile containers.

FERRIC AMMONIUM CITRATE SUPPLEMENT (Cat. 6050) (For 500 ml of medium)

1 vial of Ferric Ammonium Citrate reconstructed in 2, 0 ml of distilled water
Ferric Ammonium Citrate..... 0,25 g

Uses

LISTERIA FRASER BROTH BASE is used in the rapid detection of *Listeria* from food and environmental samples. All *Listeria* species hydrolyze esculin, which reacts with ferric ions producing blackening of the medium. The addition to ferric ammonium citrate improves the growth of *Listeria monocytogenes*.

The Lithium chloride inhibits the growth of enterococci that can hydrolyze the esculin. The antibiotics are already included in the formula therefore it is only necessary to add the Ferric Ammonium Citrate Supplement.

Inoculate 0.1 ml of the sample in 10 ml of Fraser Broth. Incubate at 35-37°C for 24-48 hours in aerobiosis, Compare each inoculated tube with a Un-inoculated tube.

The tubes that present blackening should be sub-cultured in Oxford Medium, Palcam medium and *Listeria* Chromogenic. The tubes that conserve the original color are considered negative.

Bibliography

Fraser. J.A and Sperber W.H (1988) McClain D. and Lee W.H (1988)

ISO NORMATIVE 11290-1:2004 Horizontal method for the detection and enumeration of *Listeria monocytogenes* Part 1: Detection Method

MICROBIOLOGICAL TEST

The following results were obtained in the performance of the medium from type cultures, adding the supplement Cat. 6050 after incubation at a temperature of 35-37°C in aerobic conditions and observed after 24-48 hours

Micro-organisms	Growth
<i>Streptococcus faecalis</i> ATCC 29212	Null
<i>Listeria monocytogenes</i> ATCC 19117	Good