

Fraser Listeria Broth



Medium used for the isolation and identification of *Listeria* spp.

*Equally use with MFDS (MB-L1166K).

• CONTENTS (Liter)

Tryptose	10.0 g
Beef Extract	5.0 g
Yeast Extract	5.0 g
Sodium Chloride	20.0 g
Disodium Hydrogen Phosphate Anhydrous**	9.6 g
Monopotassium Phosphate	1.35 g
Esculin	1.0 g
Lithium Chloride	3.0 g
Final pH = 7.2 ± 0.2 at 25°C	

**Equivalent to 12.0 G of Disodium Hydrogen Phosphate Dihydrate

• PROCEDURE

Suspend 54.95 G of powder in 1 L of distilled or deionized water. Heat to boiling until completely dissolved. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45 - 50°C in water bath. Aseptically add 2 vials of Fraser Listeria Broth supplement A (MB-F1828) and 2 vials of Fraser Listeria Broth supplement B (MB-F0803) or Fraser Listeria Broth supplement B (MFDS) (MB-F0803K). For Half Fraser Broth, add 1 vial of Fraser Listeria Broth supplement B (MFDS) (MB-F0803K) or use Demi Fraser Broth (MB-D1091). Mix well. Pour into tubes.

Fraser Listeria Broth supplement A

1 vial contents (each vial is sufficient for 500 mL of medium)

Ferric Ammonium Citrate 0.25 g

Fraser Listeria Broth supplement B

1 vial contents (each vial is sufficient for 500 mL of medium)

Acriflavine HCl 0.0105 g

Nalidixic Acid 0.01 g

Fraser Listeria Broth supplement B (MFDS)

1 vial contents (each vial is sufficient for 500 mL of medium)

Acriflavine HCl 0.0125 g

Nalidixic Acid 0.01 g

• INTERPRETATION

Fraser Listeria Broth is a medium used for the isolation and identification of *Listeria* spp. Tryptose, beef extract and yeast extract provide carbon and nitrogen sources and the cofactors required for the good growth of *Listeria* spp. The high concentration of sodium chloride in the medium inhibits the growth of enterococci. Disodium hydrogen phosphate and monopotassium phosphate are the buffering agents. *Listeria* species hydrolyze esculin to esculetin and dextrose. The esculetin reacts with the ferric ions to form a dark brown or black complex. Selectivity is provided by lithium chloride, acriflavine HCl and nalidixic acid. Fraser Listeria Broth except ferric ammonium citrate can be used for the cultivation of *Listeria* spp.

• TECHNIC

Inoculate the specimen using a sterile needle to the medium. Incubate at 36 ± 1°C for 24 - 48 hours. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium

Appearance: free-flowing, homogeneous

Color: beige

Prepared medium

Appearance: slightly opalescent

Color: light amber

Incubation conditions: $36 \pm 1^\circ\text{C}$ / 24 - 48 hours

Microorganism	ATCC	Growth	Characteristics
<i>Listeria monocytogenes</i>	15313	good	blackening
<i>Staphylococcus aureus</i>	25923	inhibited	-

• STORE

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label. Store prepared medium at 2 - 8°C.

• REFERENCES

1. Lovett et al (1987) J. Food Protection 50: 188.
2. Fraser and Sperber. 1988. J. Food Prot. 51:762.
3. Refer to the MFDS.

• PACKAGE

Cat. No : MB-F1166 Fraser Listeria Broth	500 G
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• MICROBIAL CULTURE IMAGES



None *L.monocytogenes* *S.aureus*
ATCC 15313 ATCC 25923

Incubation conditions : $36 \pm 1^\circ\text{C}$ / 24 - 48 hours