

<b>B1045</b>	<b>FRASER SECONDARY ENRICHMENT BROTH BASE</b>				
<b>Formula</b>					
<b>Ingredients:</b>		<b>gms/lit.</b>			
Casein enzymic hydrolysate		5.00			
Proteose peptone		5.00			
Yeast extract		5.00			
Meat Extract B#		5.00			
Sodium chloride		20.00			
Lithium chloride		3.00			
Disodium phosphate		12.00			
Monopotassium phosphate		1.35			
Esculin		1.00			
Ferric ammonium citrate		0.50			
#- Equivalent to Beef extract					
Final pH (at 25°C): 7.2 ± 0.2					
<b>Directions:</b>					
Suspend 57.85 grams in 990 ml distilled water. Heat, if necessary, to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45 - 50°C and aseptically add rehydrated contents of 1 vial of Fraser Enrichment Supplement (BF055) or one vial of Fraser Selective Supplement (BF117). Mix thoroughly and dispense as desired.					
<b>Principle:</b>					
Proteose peptone, casein enzymic hydrolysate, yeast extract, and Meat Extract B make the media highly nutritive by providing essential nutrients including carbonaceous and nitrogenous substances. Phosphates maintain the buffering capacity of the medium. All Listeria species exhibit beta-glucosidase activity which is evident by the blackening of the media. Listeria species hydrolyze esculin (substituted glucoside) to glucose and esculetin. The latter combines with ferric ions of ferric ammonium citrate, resulting in the formation of 6-7 dihydroxy coumarin, a black brown complex. Ferric ammonium citrate also enhances the growth of L. monocytogenes. The high tolerance of sodium chloride of Listeria is used as means to inhibit the growth of Enterococci. Lithium chloride is also used to inhibit Enterococci, which also possess the ability to hydrolyze esculin. Growth of accompanying bacteria is largely inhibited by the addition of Nalidixic acid and Acriflavine hydrochloride (BF).					
<b>QC Tests - (I) Dehydrated Medium</b>					
Colour:	Cream to yellow				
Appearance:	Homogeneous Free Flowing powder				
<b>(II) Rehydrated medium</b>					
pH (post autoclaving/heating):	7.2 ± 0.2				
Colour (post autoclaving/heating):	Yellow				
Clarity (post autoclaving/heating):	Clear solution with slightly precipitate				
<b>(III) Q.C. Test Microbiological</b>					
Cultural characteristics observed with added Fraser enrichment supplement (BF055) or Fraser Selective Supplement (BF117) after an incubation at 35-37°C for 24-48 hours.					
MICROORGANISM (ATCC)	GROWTH	ESCULIN HYDROLYSIS*			
Listeria monocytogenes (19111)	Good-luxuriant	Positive reaction, blackening of medium			
Listeria monocytogenes (19112)	Good-luxuriant	Positive reaction, blackening of medium			
Listeria monocytogenes (19117)	Good-luxuriant	Positive reaction, blackening of medium			
Listeria monocytogenes (19118)	Good-luxuriant	Positive reaction, blackening of medium			
Enterococcus faecalis (29212)	Inhibited	-			
Escherichia coli (25922)	Inhibited	-			
Staphylococcus aureus (25923)	Inhibited	-			
* = subcultured on Listeria selective agar					
<b>Precautions :</b>	<ol style="list-style-type: none"> <li>For Laboratory Use.</li> <li>Follow proper, established laboratory procedures in handling and disposing of infectious materials.</li> <li>Lithium chloride is harmful. Avoid bodily contact and inhalation of vapours. On contact with skin, wash with plenty of water immediately.</li> </ol>				
<b>Limitations :</b>	1. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.				
<b>Use:</b>	For the isolation, cultivation and enrichment of Listeria monocytogenes from foods and environmental specimens.				
<b>Storage:</b>	Dehydrated medium- below 30°C Prepared medium- Between 2 to 8°C.				
<b>Packing:</b>	500 gm. bottle				
<b>Product profile:</b>	Reconstitution	Quantity on Preparation (500g)	pH (25°C)	Supplement	Sterilization
<b>B1045</b>	57.85g/l	8.643L	7.2 ± 0.2	Fraser Enrichment Supplement (BF055) or Fraser Selective Supplement (BF117)	121°C / 15 minutes

Refer disclaimer Overleaf

**Disclaimer:**

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related BIOMARKLABORATORIES publications.

The information contained in this publication is based on our in-house studies and market performance and is to the best of our knowledge true and accurate. BIOMARK LABORATORIES reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.