



## Listeria Enrichment Broth (Twin Pack)

M569

Listeria Enrichment Broth is used for selective enrichment of *Listeria* species from clinical specimens.

### Composition\*\*

Ingredients	Gms / Litre
Part A	-
Casein enzymic hydrolysate	10.000
Peptic digest of animal tissue	10.000
Dextrose	1.000
Sodium chloride	5.000
Thiaminium dichloride	0.005
Acridine hydrochloride (Trypaflavin)	0.010
Part B	-
Potassium thiocyanate	37.500
Final pH ( at 25°C)	7.4±0.2

\*\*Formula adjusted, standardized to suit performance parameters

### Directions

Suspend 26 grams of Part A and 37.5 grams of Part B in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Dispense in tubes or flasks as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

### Principle And Interpretation

Listeria Enrichment Broth was proposed by Feindt (1) for the cultivation and isolation of *Listeria* species from clinical and non-clinical specimens. Obiger and Schonberg (2) reported the superiority of this media to yield *Listeria* from mix-infected specimens.

Casein enzymic hydrolysate, peptic digest of animal tissue provides essential nutrients. Thiaminium dichloride is the vitamin B source added to improve the growth of *Listeria*. Thiocyanate inhibits gram-negative bacteria (3, 4).

Listeria Enrichment Broth can be further improved by adding Colimycin alongwith Nalidixic acid (5). The mix infected specimen is added directly to Listeria Enrichment Broth.

### Quality Control

#### Appearance

Cream to yellow homogeneous free flowing powder White to cream homogeneous free flowing powder

#### Colour and Clarity of prepared medium

Yellow coloured clear to slightly opalescent gel forms in Petri plates.

#### Reaction

Reaction of medium (2.6% w/v Part A + 3.75% w/v Part B) at 25°C. pH : 7.4±0.2

#### pH

7.20-7.60

#### Cultural Response

Cultural characteristics observed in presence of 10% Carbon dioxide (CO<sub>2</sub>) after an incubation at 35-37°C for 48 hours.

#### Cultural Response

Organism	Inoculum (CFU)	Growth
<i>Enterococcus faecalis</i> ATCC 50-100 29212		none-poor
<i>Escherichia coli</i> ATCC 25922	>=10 <sup>3</sup>	inhibited

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<i>Listeria innocua</i> ATCC 33090	50-100	luxuriant
<i>Listeria ivanovii</i> ATCC 19119	50-100	luxuriant
<i>Listeria monocytogenes</i> ATCC 19112	50-100	luxuriant
<i>Listeria monocytogenes</i> ATCC 19118	50-100	luxuriant

### Storage and Shelf Life

Store dehydrated powder and prepared medium at 2-8°C in tightly closed container. Use before expiry period on the label.

### Reference

1. Feindt E., 1972, Inaug. Diss., Würzburg.
2. Obiger G. and Schonberg A., 1973, Fleischwirtschaft, 10:1450.
3. Lebnert C., 1964, Arch. Exp. Vet. Med., 18:891 and 1247. 4. Beerens H. and Tahon-Castel M.M., 1966, Ann. Inst. Pasteur, 111:90.
5. Grey M.L. et al, 1948, J. Bact., 55:471.

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