



Listeria Enrichment Broth (Twin Pack)

RDM-LEM-01

Principle

Listeria Enrichment Broth medium is composed of peptone, tryptone, dextrose, sodium chloride, thiaminium dichloride, acriflavine hydrochloride and potassium thiocyanate. Peptone and tryptone provide carbon, nitrogen sources and essential growth factors required for growth of *Listeria*. Dextrose is carbon and energy source. Thiaminium dichloride is the vitamin B source. The sodium chloride maintains osmotic equilibrium. The acriflavine inhibits other gram positive bacteria. Whereas potassium thiocyanate inhibits gram negative bacteria.

Use: Recommended for selective isolation and cultivation of *Listeria monocytogenes* from clinical specimen.

Contents*

Ingredients

Part A

	Gram/Litre
Peptone	10.000
Tryptone	10.000
Dextrose	1.000
Sodium Chloride	5.000
thiaminium dichloride	0.005
Acriflavine	0.010

Part B

Potassium thiocyanate	37.500
pH at 25°C	7.4 ±0.2

* Formula adjusted for optimum performance and parameters

Directions: Dissolved 26.00 grams of part A and 37.5 grams of Part B in 1000 ml distilled water. Boil to dissolve the medium completely and distribute aseptically in desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 min, cool it to 42-45 °C and inoculate test sample aseptically.

Specimens types analyzed

Pharmaceutical samples, clinical samples etc.

Precautions to be taken

These microbial media are intended for the in-vitro use only. All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving. Please go through the MSDS of the media to avoid any accidents or in emergency.

Performance and Evaluation

The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

Quality Control

Appearance	Part A: Beige color free flowing, homogeneous powder Part B: White to cream color free flowing, powder
Reaction of 2.60% of part A and 3.75 % of part B solution	7.4 ±0.2 at 25 °C

pH	7.20-7.60
Color and clarity of ready medium	Yellow colored, clear slightly opalescent
Growth Promotion properties	Best at ≤ 100 CFU at 32-37 °C for 18-72 h
Indicative properties	Optimum at ≤ 100 CFU at 32-37 °C for 18-48 h
Negative control	Performed using sterile distilled water

Different Microbial Response

Organism	ATCC	Inoculum	Growth	Incubation Temperature	Incubation period
<i>Listeria monocytogenes</i>	19111	50-100	Luxurious	33-37 °C	24-48 h
<i>Escherichia coli</i>	8739	500-1000	Inhibited	33-37 °C	24-48 h
<i>Staphylococcus aureus</i>	6538	500-1000	Inhibited	33-37 °C	24-48 h

Storage and Shelf Life

Hygroscopic; keep container tightly closed. Store in cool dry place.

Disposal: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.

Reference

1. American Public Health Association, (1978) *Standard Methods for the Examination of Dairy Products*, 14th Ed., Washington
2. D.C *Difco Manual* (1998). 11th Edition. Difco Laboratories., Division of Becton Dickinson and Company, Sparks, Maryland, USA.
3. Salfinger Y., and Tortorello M.L. Fifth (Ed.), (2015), *Compendium of Methods for the Microbiological Examination of Foods*, 5th Ed., American Public Health Association, Washington, D.C
4. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) *Manual of Clinical Microbiology*, 11th Edition. Vol. 1.
5. Wehr H. M. and Frank J. H., (2004), *Standard Methods for the Microbiological Examination of Dairy Products*, 17th Ed., APHA Inc., Washington, D.C.

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