

CM 20972 – LISTERIA ENRICHMENT BROTH, MODIFIED

INTENDED USE

For selective enrichment of *Listeria* species

PRODUCT SUMMARY AND EXPLANATION

Only *Listeria monocytogenes* among the *Listeria* species is reported to cause infection in humans. In human adults, *L. monocytogenes* primarily causes meningitis, encephalitis or septicemia. The tropism of *L. monocytogenes* for the central nervous system leads to severe disease, often with high mortality or with neurologic disorders among survivors. *Listeria* Enrichment Broth, Modified, a modification of the original formulation of Donnelly and Baigent, is used for the selective enrichment of *Listeria* species. In this medium, the nalidixic acid concentration has been reduced from 40 mg/l in the original composition, to 20 mg/l. *Listeria* Enrichment Broth, Modified is used for selective enrichment of *Listeria* species from milk, milk products and other foods.

COMPOSITION

Ingredients	Gms / Ltr
Tryptose	10.000
Yeast extract	5.000
Beef extract	5.000
Sodium chloride	20.000
Disodium hydrogen phosphate	9.600
Potassium dihydrogen phosphate	1.350
Esculin	1.000
Nalidixic acid	0.020
Acriflavin hydrochloride (Trypaflavin)	0.012

PRINCIPLE

This medium consists of tryptose, yeast extract and Beef extract which provide essential nutrients like carbon and nitrogenous compounds including vitamins, amino acids and trace ingredients. Phosphates provide buffering action to the medium while sodium chloride maintains osmotic equilibrium. Nalidixic acid and acriflavin inhibit the growth of gram-negative and gram-positive organisms respectively except *Listeria* species.

INSTRUCTION FOR USE

Dissolve 51.98 grams in 1000 ml purified/distilled water.

Heat if necessary to ensure complete solution.

Dispense into bottles or tubes and sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 45-50°C.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Yellow coloured, clear to slightly opalescent solution having a bluish tinge.
pH (at 25°C)	: 7.2 ± 0.2

INTERPRETATION



Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Escherichia coli	25922	$\geq 10^4$	Inhibited	35-37°C	24-48 Hours
Listeria monocytogenes subsp. serovar 1	19111	50-100	Luxuriant	35-37°C	24-48 Hours
Listeria monocytogenes	19112	50-100	Luxuriant	35-37°C	24-48 Hours
Listeria monocytogenes	19117	50-100	Luxuriant	35-37°C	24-48 Hours
Listeria monocytogenes	19118	50-100	Luxuriant	35-37°C	24-48 Hours
Staphylococcus aureus subsp. aureus	25923	$\geq 10^4$	Inhibited	35-37°C	24-48 Hours

PACKAGING:

Inpacksize of 100 gm and 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 2-8°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

- Donnelly C. W. and Baigent G. J., 1986, Appl. Environ. Microbiol., 52:689
- Lovette J., Francis D. W. and Hunt J. M., 1987, J. Food Prot., 50:188
- Lee W. H. and McClain D., 1986, Appl. Environ. Microbiol., 52:1215
- McClain D. and Lee W. H., 1988, J. Assoc. Off. Anal. Chem., 71:660
- 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.
- Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.



 GMP Good Manufacturing Practices Certified	 IVD For In Vitro Diagnostic Use	 QTY. Quantity	 LOT/ B. NO. Lot / Batch Number	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 EC REP MedNet GmbH Bockstrasse 10, 48143 Münster, Germany Authorized Representative	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

*For LabUse Only

