

CM 20985 – LISTERIA SELECTIVE ENRICHMENT BROTH

INTENDED USE

For selective enrichment of *Listeria* species in accordance with FDA/IDF-FIL.

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. This media is formulated as described in FDA, BAM Manual. *Listeria* Selective Enrichment Broth is used for selective enrichment of *Listeria* species from milk, milk products and other foods.

COMPOSITION

Ingredients	Gms / Ltr
Peptone from casein	17.000
Soya Peptone	3.000
Glucose	2.500
Sodium chloride	5.000
Dipotassium hydrogen phosphate	2.500
Yeast extract	6.000
Acriflavine	0.010
Cycloheximide	0.050
Nalidixic acid	0.040

PRINCIPLE

This medium consists of casitose, soya peptone which provide essential nutrients like carbon and nitrogenous compounds including vitamins, amino acids and trace ingredients. Glucose serves as an energy source. 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 36.1 grams in 1000 ml purified/distilled water.

Heat if necessary to dissolve the medium completely.

Dispense in tubes or flasks as desired and Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

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)	: 7.3 ± 0.2

INTERPRETATION



Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Listeria monocytogenes	19111	50-100	Luxuriant	30-35°C	48 Hours
Listeria monocytogenes	19112	50-100	Luxuriant	30-35°C	48 Hours
Listeria monocytogenes	19117	50-100	Luxuriant	30-35°C	48 Hours
Listeria monocytogenes	19118	50-100	Luxuriant	30-35°C	48 Hours
Listeria innocua	33090	50-100	Good	30-35°C	48 Hours
Listeria ivanovii	19119	50-100	Luxuriant	30-35°C	48 Hours
Staphylococcus aureus subsp. aureus	25923	50-100	Fair	30-35°C	48 Hours

PACKAGING:

In pack size of 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

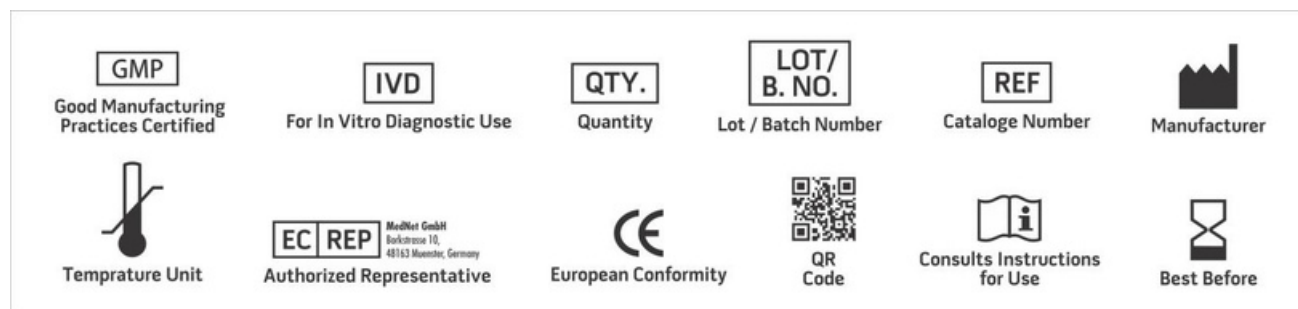
After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. A.D. Hitchens (ret.) K. J. Chen, FDA, Bacteriological Analytical Manual, updated 2017. Chapter 10.



2. 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.
3. Lee W. H. and McClain D., 1986, Appl. Environ. Microbiol., 52:1215
4. Lovette J., Francis D. W. and Hunt J. M., 1987, J. Food Prot., 50:188
5. McClain D. and Lee W. H., 1988, J. Assoc. Off. Anal. Chem., 71:660.



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

*For LabUse Only

