

CM 20663 – ENTEROBACTERIA ENRICHMENT BROTH MOSSEL (as per USP/EP/BP/JP)

INTENDED USE

For enrichment of Enterobacteriaceae of food products.

PRODUCT SUMMARY AND EXPLANATION

The family Enterobacteriaceae consists of Salmonella, Shigella and other enteric pathogens. These organisms find entry into the food system through faecally contaminated water. Majority of these organisms may be eliminated under the stringent food processing parameters. But some of these organisms may become sub lethally injured during the changes in pH, exposure to steam or heat and other unfavourable conditions. Therefore, the important aspect of food monitoring depends upon the identification and enumeration of these injured cells, after resuscitation.

EE Broth Mossel, formulated by Mossel et al is recommended as an enrichment medium for bile tolerant gram-negative bacteria in the biological examination of foods, animal feed stuffs. This medium is prepared in accordance with the harmonized method of USP/EP/BP/JP/IP.

COMPOSITION

Ingredients	Gms / Ltr
Pancreatic digest of gelatin	10.000
Glucose monohydrate	5.000
Dehydrated ox-bile	20.000
Disodium hydrogen phosphate, dihydrate	8.000
Potassium dihydrogen phosphate	2.000
Brilliant green	0.015

PRINCIPLE

The medium consists of Pancreatic digest of gelatin and glucose monohydrate that allows the growth of most of the members of Enterobacteriaceae. Brilliant green and dehydrated bile are the inhibitory agents for gram-positive bacteria. Phosphates act as a good buffering agent and neutralizes acids produced by lactose fermenters that otherwise would adversely affect the growth of the organism. Lactose negative, anaerogenic lactose-positive or late lactose fermenting Enterobacteriaceae are often missed by the standard Coli-aerogenes test.

INSTRUCTION FOR USE

Dissolve 42.93 grams in 1000 ml purified / distilled water.

Dispense into tubes or flasks as desired. Heat in free flowing steam or boiling water (100°C) for 30 minutes and cool immediately. DO NOT AUTOCLAVE.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Light yellow to greenish yellow homogeneous free flowing powder.
Appearance of prepared medium	: Emerald green coloured, clear solution without any precipitate.
pH (at 25°C)	: 7.2 ± 0.2



INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Acid	Incubation Temperature	Incubation Period
Escherichia coli	8739	50-100	Luxuriant	Positive reaction, yellow colour	30-35°C	<=24 Hours
Escherichia coli	25922	50-100	Luxuriant	Positive reaction, yellow colour	30-35°C	24 -48 Hours
Pseudomonas aeruginosa	9027	50-100	Luxuriant	-	30-35°C	<=24 Hours
Pseudomonas aeruginosa	27853	50-100	Luxuriant	-	30-35°C	24 -48 Hours
Staphylococcus aureus subsp.aureus	6538	>=10 ³	Inhibited	-	30-35°C	>=48 Hours
Klebsiella aerogenes	13048	50-100	Luxuriant	Positive reaction, yellow colour	30-35°C	24 -48 Hours
Proteus mirabilis	25933	50-100	Luxuriant	Positive reaction, yellow colour	30-35°C	24 -48 Hours
Salmonella Enteritidis	13076	50-100	Luxuriant	Positive reaction, yellow colour	30-35°C	24 -48 Hours
Shigella boydii	12030	50-100	Luxuriant	Negative reaction	30-35°C	24 -48 Hours
Staphylococcus aureus subsp. aureus	25923	>=10 ³	Inhibited	-	30-35°C	>=48 Hours

PACKAGING:

In pack size of 100 gm and 500 gm bottles.

STORAGE



Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°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.

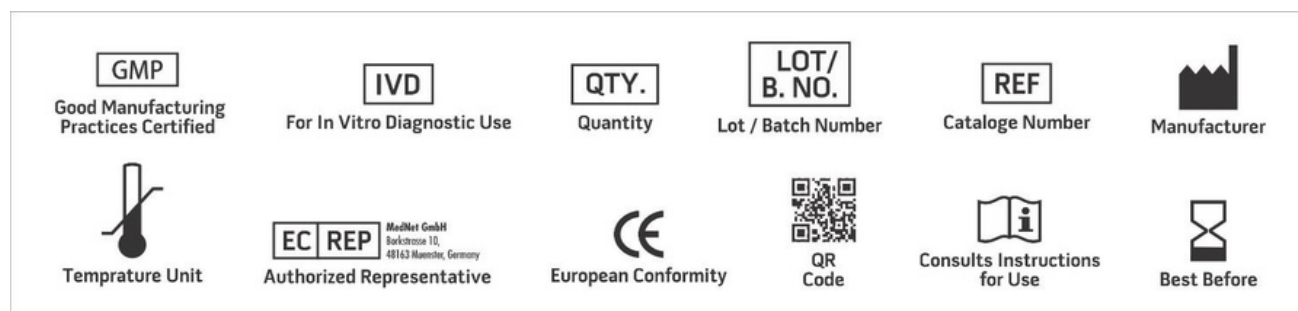
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

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2. Mossel D. A. A., Vissar M. and Cornellsen A. M. R., 1963, J. Appl. Bacteriol., 26(3):444.
3. Mossel D.A.A. and Ratto M.A., 1970, Appl. Microbiol., 20:273.
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6. The Indian Pharmacopoeia 2018, Govt. of India, 2019. The Controller of Publication, Delhi.
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NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

*For LabUse Only

