

TM 1838 – 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 in 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
<i>Escherichia coli</i>	8739	50-100	Luxuriant	Positive reaction, yellow colour	30-35°C	<=24 Hours
<i>Escherichia coli</i>	25922	50-100	Luxuriant	Positive reaction, yellow colour	30-35°C	24 -48 Hours
<i>Pseudomonas aeruginosa</i>	9027	50-100	Luxuriant	-	30-35°C	<=24 Hours
<i>Pseudomonas aeruginosa</i>	27853	50-100	Luxuriant	-	30-35°C	24 -48 Hours
<i>Staphylococcus aureus subsp.aureus</i>	6538	>=10 ³	Inhibited	-	30-35°C	>=48 Hours
<i>Klebsiella aerogenes</i>	13048	50-100	Luxuriant	Positive reaction, yellow colour	30-35°C	24 -48 Hours
<i>Proteus mirabilis</i>	25933	50-100	Luxuriant	Positive reaction, yellow colour	30-35°C	24 -48 Hours
<i>Salmonella Enteritidis</i>	13076	50-100	Luxuriant	Positive reaction, yellow colour	30-35°C	24 -48 Hours
<i>Shigella boydii</i>	12030	50-100	Luxuriant	Negative reaction	30-35°C	24 -48 Hours
<i>Staphylococcus aureus subsp. aureus</i>	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

1. British Pharmacopoeia, 2016, The Stationery office British Pharmacopoeia.
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.
4. Mossel D.A.A. and Shennan J.L. and Clare V., 1973, J. Sci. Fd. Agric., 24 : 499.
5. Mossel D.A.A., Ratto M.A., 1973, J. Fd. Technol., 8 : 97.
6. The Indian Pharmacopoeia 2018, Govt. of India, 2019. The Controller of Publication, Delhi.
7. Mossel D. A. A., and Harrewijn G. A., 1972, Alimenta II, 29-30.
8. The Indian Pharmacopoeia 2018, Govt. of India, 2019. The Controller of Publication, Delhi.
9. The United States Pharmacopoeia, 2019, The United States Pharmacopoeial Convention. Rockville, MD.

 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 Authorized Representative <small>MedNet GmbH Borkstrasse 10, 48163 Moenster, Germany</small>	 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 Lab Use Only**
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