Enterobacteria Enrichment Broth, Mossel (Harmonized)

Intended Use

Enterobacteria Enrichment Broth, Mossel is used for isolation and cultivation of *Enterobacteriaceae* from pharmaceutical products in accordance with microbial limit testing by harmonized methodology of USP/EP/BP/JP/IP.

Summary

The enumeration of *Enterobacteriaceae* is of great concern in monitoring the sanitary quality of foods. Most *Enterobacteriaceae* are easily injured during food-processing procedures, especially by exposure to low temperatures, sub marginal heat, drying, radiation, preservatives or sanitizers. The ability to successfully recover these organisms depends upon the proper resuscitation of damaged or sub-lethally injured cells.

EE Broth, Mossel is made according to the formula developed by Mossel, Visser and Cornelissen. The formula contains glucose to facilitate the growth of most *Enterobacteriaceae*, thus promoting the detection of *Salmonella* and other non-lactose fermenting bacteria. EE Broth, Mossel should be used as an enrichment broth, followed by plating to a selective medium such as Violet Red Bile Agar or Violet Red Bile Agar with Glucose. In addition, the medium conforms to the harmonized USP/EP/BP/JP/IP requirements for the detection of bile-tolerant, Gram-negative microorganisms.

Principle

Pancreatic digest of gelatin provides nutrients, nitrogen compounds and amino acids. Ox bile supports the growth of enteric bacteria and inhibits other bacteria, which do not normally live in the intestine. Brilliant-green specifically inhibits the Gram-positive accompanying flora. Phosphates serve as a buffering system.

Formula*

Ingredients	g/L
Pancreatic Digest of Gelatin	10.0
Glucose Monohydrate	5.0
Dehydrated Ox Bile	20.0
Potassium Dihydrogen Phosphate	2.0
Disodium Hydrogen Phosphate Dihydrate	8.0
Brilliant Green	0.015
Final pH (at 25°C)	7.2 ± 0.2

*Adjusted to suit performance parameters.

Directions

1. Bring the Enterobacteria Enrichment Broth, Mossel (Harmonized) to the room temperature 22°C-30°C.
2. Use Enterobacteria Enrichment Broth, Mossel (Harmonized) as per required application.

Quality Control

Appearance: Green coloured, clear solution.

Growth Promotion Test: Growth promotion is carried out in accordance with the harmonized method of USP/EP/JP/IP/BP and growth is observed after an incubation at 30°C-35°C for 24-48 hours. Subculturing is carried out using Violet Red Bile Glucose Agar (Harmonized) after enrichment in Enterobacteria Enrichment Broth, Mossel (Harmonized) and incubated at 30°C-35°C for 18-24 hours.

Growth Promoting Properties: The test results observed are within the specified temperature and the shortest period of time, inoculating ≤100 cfu (at 30°C-35°C for 24 hours).

Inhibitory Properties: No growth of the test microorganism occurs for the specified temperature and longest period of time, inoculating >100 cfu (at 30°C-35°C for ≥48 hours).

Organism (ATCC)	Growth
Escherichia coli (8739)	Good
Pseudomonas aeruginosa (9027)	Good
Inhibitory	
Staphylococcus aureus subsp. *aureus* (6538)	Inhibited

Note: No growth of the organism should occur for the inhibitory test.
Inoculum for good growth is 10-100 cfu and that for inhibition is greater than 100 cfu.

Remarks

1. Do not use media bottles that exhibit any damage, cracks, microbial contamination, discolouration, drying or any other sign of deterioration.
2. Good laboratory practices and hazard precautions must be observed at all times.
3. After use media containers, sample, sample containers and other contaminated materials must be sterilized or incinerated before discarding.
4. All autoclaved biohazards should be disposed off in accordance with state and local environmental regulations.
5. Only qualified personnel who have been trained in microbiological procedures should handle all infected specimens and inoculated culture media.
6. User should ensure that any machinery or apparatus used and by chance contaminated must be safely disinfected or sterilized. The environment in which microbiological cultures are handled must also be taken into account.

Storage and Stability

1. Store the ready to use Enterobacteria Enrichment Broth, Mossel (Harmonized) at 15°C-25°C in a cool, dry place away from light.
2. Stability of the kit is as per expiry date mentioned on the label.

Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

References

1. Hartman and Minnich. 1981. Automation for Rapid Detection of Salmonellae in Foods. J. Food Prot. 44:385.
2. Mossel, D.A.A., M. Visser and A.M.R. Cornelissen. 1963. The Examination of Foods for Enterobacteriaceae using a Test of the Type Generally Adopted for the Detection of Salmonellae. J. Appl. Bacteriol.; 26:444.
3. Mossel D. A. A., and Harrewijn G. A., 1972, Alimenta II, 29-30
4. U.S. Food and Drug Administration. 1995. Bacteriological Analytical Manual, 8th ed. AOAC International, Gaithersburg, MD.
5. United States Pharmacopeia. 2008. The Official Compendia of Standards. USP General Chapter Microbiological Examination of Nonsterile Products: Microbial Enumeration Tests. USP31-NF26. United States Pharmacopeial Convention Inc., Rockville, MD.
6. United States Pharmacopeia. 2008. The Official Compendia of Standards. USP General Chapter Microbiological Examination of Nonsterile Products: Tests for Specified Microorganisms. USP31NF26. United States Pharmacopeial Convention Inc., Rockville, MD.
7. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat. No.	Product Description	Pack Size
203050250010	Ready Prepared Tube	25 x 10 mL
203050740090	Bottle Media	90 mL
203050850090	Bottle Media	10 x 90 mL
203050250100	Bottle Media	100 mL
203050530100	Bottle Media	100 mL