

MOSEL EE BROTH EUROPEAN PHARMACOPEIA

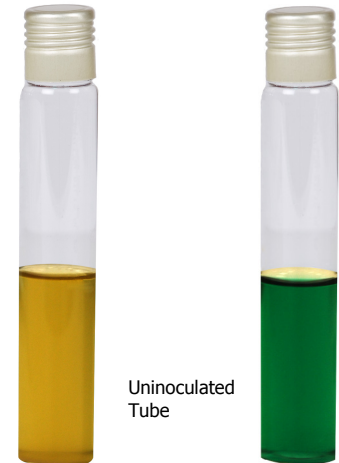
CAT N°: 1202

Selective medium for Enterobacteriaceae in foods, especially *Salmonella* and coliforms

FORMULA IN g/l

Dehydrated Ox Bile	20.00	Glucose Monohydrate	5.00
Pancreatic Digest of Gelatin	10.00	Potassium Dihydrogen Phosphate	2.00
Disodium Hydrogen Phosphate Dihydrate	8.00	Brilliant Green	0.015

Final pH 7.2 ± 0.2 at 25°C



Escherichia coli
ATCC 8739

Uninoculated
Tube

PREPARATION

Suspend 45 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Heat at 100°C for 30 minutes. Cool immediately. AVOID OVERHEATING. DO NOT AUTOCLAVE. Dispense into appropriate containers. The prepared medium should be stored at 2-8°C. The color is green.

The dehydrated medium should be homogeneous, free-flowing and light green in color. If there are any physical changes, discard the medium.

USES

MOSEL EE (ENTEROBACTERIACEAE ENRICHMENT) BROTH is as an enrichment broth, used to promote the growth of the Enterobacteriaceae group, microorganisms which contaminate foods.

The enumeration of Enterobacteriaceae is of great importance when controlling the sanitary condition of food. Microorganisms can be injured in food processing, including exposure to low temperatures, sub marginal heat, drying, radiation, preservatives or sanitizers. Recovery depends on the adequate resuscitation of damaged cells. *Escherichia coli*, even though present in small numbers as a contaminant in foods, grows easily in this medium.

Pancreatic digest of gelatin provides nitrogen, vitamins, minerals and amino acids essential for growth. Glucose is the fermentable carbohydrate providing carbon and energy. Disodium phosphate and Monopotassium phosphate act as a buffer system. Brilliant green and Ox bile are selective agents, inhibiting Gram-positive microorganisms.

Inoculate e incubate at 35 ± 2°C for 18-48 hours.

The European Pharmacopoeia in Paragraph 2.6.13: "Microbiological examination of non-Sterile products: test for specified microorganisms" recommends this medium for the testing of products for bile-tolerant Gram-negative bacteria. The sample is prepared using 1ml in 10ml of casein soya bean digest broth. For the absence test, use the dilution made previously and the volume corresponding to 1g of the product to inoculate in Mosel EE Broth. Incubate at 30-35°C for 24-48 hours. Subculture on plates of Violet Red Bile Agar with Glucose (VRBG) (Cat. 1092). Incubate at 30-35°C for 18-24 hours. The product complies with the test if there is no growth of colonies.

MICROBIOLOGICAL TEST

The following results were obtained in the performance of the medium from type cultures after incubation at a temperature of $35 \pm 2^\circ\text{C}$ and observed after 18-48 hours.

Microorganisms	Growth	Yellow Color (Acid)
<i>Enterobacter aerogenes</i> ATCC 13048	Good	+
<i>Escherichia coli</i> ATCC 25922	Good	+
* <i>Escherichia coli</i> ATCC 8739	Good	+
<i>Salmonella enteritidis</i> ATCC 13076	Good	± (could be slow)
<i>Salmonella typhimurium</i> ATCC 14028	Good	± (could be slow)
<i>Staphylococcus aureus</i> ATCC 25923	Inhibited	-
* <i>Staphylococcus aureus</i> 6538	Inhibited	-
* <i>Pseudomonas aeruginosa</i> ATCC 9027	Good	-

*According to European Pharmacopoeia incubate at $30-35^\circ\text{C}$ for 24-48 hours.

BIBLIOGRAPHY

Mossel D.A.A., Visser M. and Cornelissen A.M.R.J App, Bact. 24:444. 1963.
 Mossel D.A.A et al. J. BAct. 84:381. 1982
 European Pharmacopoeia 7.0



STORAGE

Once opened keep powdered medium closed to avoid hydration.

