

TECHNICAL DATA SHEET

Article No. 9440

E.E. Mossel Broth, ready-to-use medium

SYNONYMS

Enterobacteriaceae Enrichment Broth Mossel, Buffered Glucose-Brilliant Green Bile Broth, EE Broth

SPECIFICATION

Prepared medium in bottles/tubes, sterile. Liquid culture medium used for the enrichment of enterobacteria according to ISO 21528-1:2004 and to the Pharmacopeial Harmonized Method.

Colour: Dark green
pH: 7.2 ± 0.2 at 25 °C

COMPOSITION IN G/ L

Gelatin peptone	10.000
Glucose	5.000
Ox bile	20.000
Di-sodium phosphate (2 H ₂ O)	8.000
Monopotassium phosphate	2.000
Brilliant green	0.015

PACKAGE DETAILS

9440-20x9ML

Volume 9 ± 0.1 ml
Tube size 16 x 113 mm
Packaging unit 20 tubes
1 box with 20 x 9 ml in glass tubes, ink labelled, metal-non injectable cap.

9440-10x90ML

Volume 90 ± 3 ml
Bottle size 125 ml
Packaging unit 10 bottles
1 box with 10 x 90 ml in 125 ml bottles. Injectable cap: Plastic screw inner cap. For the use of syringe needles with a diameter ≤ 0.8 mm.



9440-10x100ML

Volume	100 ± 3 ml
Bottle size	125 ml
Packaging unit	10 bottles

1 box with 10 x 100 ml in 125 ml bottles. Injectable cap: Plastic screw inner cap. For the use of syringe needles with a diameter ≤ 0.8 mm.

DESCRIPTION/ TECHNIQUE

Description:

As the name suggests, this medium is for the enrichment of enterobacteria, and is a modification by Mossel (1963) of the classic Brilliant Green Bile 2 % Broth. Substitution of lactose by glucose makes it more suitable for enteric bacteria detection, (including both gas or nongas-producers), in food and other samples.

Technique:

The most common technique is as follows: the sample to be studied is added to sterile broth in a proportion of 10%. After thorough homogenization, the mixture is incubated for a period of 24-48 hours at 30-35 °C. After incubation, subcultures are performed on a solid media appropriate for the selective isolation of enterobacteria (18-24h).

For this step, Violet Red Bile Glucose Agar is recommended, although MacConkey, VRBLA, deoxycholate or brilliant green based media may also be used.

Presumptive colonies isolated on the media can be verified following the usual methodology.

Note: temperatures or culture media may vary according to normative adopted by the laboratory.

MICROBIOLOGICAL CONTROL

Inoculate: 10-100 CFU accord. to Ph.Eur. & 100 ± 20 CFU; min. 50 CFU (productivity)/ 10⁴-10⁶ CFU (selectivity) acc. to ISO.

Analytical methodology according to ISO 11133:2014/A1:2018; A2:2020.

Aerobiosis. Incubation: 30-35 °C. Reading at 24h (E.P.) / 37 ± 1 °C. Reading at 24 h (ISO)

Note: results ATCC® 8739/6538/9027 (30-35 °C) (EP) & ATCC® 8739/14028/19433/(37 °C) (ISO).

Microorganism	Growth
<i>Escherichia coli</i> ATCC® 8739, WDCM 00012	Good. Recovery in VRBG
<i>Ps. aeruginosa</i> ATCC® 9027, WDCM 00026	Good. Recovery in VRBG
<i>Staphylococcus aureus</i> ATCC® 6538, WDCM 00032	Inhibited
<i>Enterococcus faecalis</i> ATCC® 19433, WDCM 00009	Inhibited
<i>E. coli</i> ATCC® 8739 + <i>E. faecalis</i> ATCC® 19433	> 10 CFU. Characteristic colonies of <i>E. coli</i>
<i>S. typhimuriumi</i> ATCC® 14028 + <i>E. faecalis</i> ATCC® 19433	> 10 CFU. Characteristic colonies of <i>Salmonella</i>

Sterility control:

Incubation 48 hours at 30-35 °C and 48 hours at 20-25 °C: NO GROWTH.

Check at 7 days after incubation in same conditions.

REFERENCES

- EUROPEAN PHARMACOPOEIA 8.0 (2014) 8th ed. § 2.6.13. Microbiological examination of non-sterile products: Test for specified microorganisms. Harmonised Method. EDQM. Council of Europe. Strasbourg.
- ISO 21528-1:2004 Standard. Microbiology of food and animal feeding stuffs - Horizontal methods for the detection and enumeration of Enterobacteriaceae - Part 1: Detection and enumeration by MPN technique with pre-enrichment.
- ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.
- MOSSEL, VISSER & CORNELISSEN (1963) The examination of foods for Enterobacteriaceae using a test of the type generally adopted for the detection of *salmonellae* J. Appl. Bact. 26:444-452.
- PASCUAL ANDERSON. M^a. R^o. (1992) Microbiología Alimentaria. Díaz de Santos. S.A. Madrid.
- USP 33 - NF 28 (2011) <62> Microbiological examination of non-sterile products: Test for specified microorganisms. Harmonised Method. USP Corp. Inc. Rockville. MD. USA.

STORAGE

8 - 25 °C

SHELF LIFE

12 months unopened from date of manufacture

created: 12.09.2022

