Reference : DSHB3026 **Technical data sheet**

Product :
ENRICHMENT ENTEROBACTERIACEAES BROTH (EE Broth)

Also known as
EE Mossel

Specification
Liquid culture medium used for the enrichment of enterobacteria, according to the ISO standards and Pharmacopeial Harmonized Methods.

Formula * in g/L
Gelatin peptone 10.000
Dextrose 5.000
Ox bile 20.000
Disodium phosphate Dihydrate 8.000
Potassium dihydrogenphosphate 2.000
Brilliant green 0.0135

Final pH 7.2 ±0.2 at 25 °C

* Adjusted and /or supplemented as required to meet performance criteria

Directions
Suspend 45 g of powder in 1 l of distilled water and heat until dissolved. DO NOT AUTOCLAVE. Heat at 100 °C for 30 minutes and cool down immediately.

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 Broth. Substitution of lactose by glucose makes it more suitable for enteric bacteria detection, including both gas or non-gas-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.
For this step, Violet Red Bile Glucose Agar is recommended, although MacConkey, VRBLA, deoxycholate or brilliant green based media can also be used.
Presumptive colonies isolated on this media, can be verified following the usual methodology.
Note: Temperatures or culture media may vary according to normatives adopted by the laboratory.

Quality control
Incubation temperature: 30-35°C **Incubation time:** 24-48 h

Inoculum: Practicalrange 100 ±20 CFU. Min. 50 CFU (productivity)/10□-10□ CFU (selectivity), according to ISO 11133:2014 and Ph. Eur.

Microorganism	Growth	Remarks
Enterococcus faecalis ATCC® 19433	Inhibited	Recovery in TSA (18-24h)
Staphylococcus aureus ATCC® 6538	Inhibited	Recovery in VRBG (18-24h)
Pseudomonas aeruginosa ATCC® 9027	Good	Recovery in VRBG (18-24h)
Escherichia coli ATCC® 25922	Good	Recovery in VRBG (18-24h)
Escherichia coli ATCC® 8739	Good	Recovery in VRBG (18-24h)
Salmonella typhimurium ATCC® 14028	Good	Recovery in VRBG (18-24h)

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. 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. Mª.Rº. (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
Keep tightly closed, away from light, in a dry place (4-30 °C).