



Dehydrated Culture Media
Bases / Media Supplements

Technical Information

E E Broth, Mossel

Product Code: DM1287D

Application: - E E Broth, Mossel is used for selective enrichment of *Enterobacteriaceae* in bacteriological examination of foods.

Composition**

Ingredients	Gms / Litre
Tryptose	10.000
Dextrose	5.000
Disodium phosphate	8.000
Monopotassium phosphate	2.000
Oxgall	20.000
Brilliant green	0.0135
Final pH (at 25°C)	7.2±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Mossel et al and formulated EE Broth, Mossel recommended as an enrichment medium for *Enterobacteriaceae* in bacteriological examination of foods ⁽¹⁾ and animal feed stuffs ⁽²⁾. EE Broth, Mossel differs from EE Broth, Mossel in the source of carbon. This medium is provided with additional buffering action due to increased concentration of disodium phosphate and replacing Ox bile with oxgall. Tryptose and dextrose allow the growth of the most of the members of *Enterobacteriaceae*. Brilliant green and oxg or ox-bile, purified are the selective agents for gram-positive bacteria. Lactose negative, anaerogenic lactose-positive or late lactose fermenting *Enterobacteriaceae* are often missed by the standard 'Coli-aerogenes' test. To overcome this lactose is replaced by glucose in the media. Prior to enrichment in EE Broth, Mossel. Cells damaged while drying or by low pH are resuscitated in well-aerated Tryptone Soya Broth (DM1011) for 2 hours at 25°C The resuscitation procedure is also recommended for dried foods ⁽³⁾, animal feeds ⁽⁴⁾ and semi-preserved foods ⁽⁵⁾. EE Broth, Mossel is an enrichment broth and should be used in conjunction with Violet Red Bile Glucose Agar (DM1581). Subcultures must be made onto lactose differential media as MacConkey Agar (DM1081), Deoxycholate Citrate Agar (DM1065) or Brilliant Green Agar (DM1016) for the detection of lactose negative or delayed lactose fermenters.

Methodology

Suspend 45.01 grams of powder media in 1000 ml distilled water. Shake well & dispense 120 ml amounts in 250 ml flasks or 9 ml amounts in tubes. Stopper with cotton plugs or loose fitting caps. Heat in free flowing steam or boiling water for 30 minutes. Avoid overheating of the medium. DO NOT AUTOCLAVE.

Quality Control

Physical Appearance

Light yellow to greenish yellow coloured homogeneous free flowing powder

Colour and Clarity of prepared medium

Emerald green coloured clear solution without any precipitate

Reaction

Reaction of 4.5% w/v aqueous solution at 25°C. pH : 7.2±0.2

pH range 7.00-7.40





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Cultural Response/ characteristics

DM 1287D: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth	Acid (CFU)
Escherichia coli ATCC 25922	50-100	luxuriant	Positive reaction, yellow colour
Enterobacter aerogenes ATCC 13048	50-100	luxuriant	Positive reaction, yellow colour
Proteus mirabilis ATCC 25933	50-100	luxuriant	Positive reaction, yellow colour
Salmonella Enteritidis ATCC 13076	50-100	luxuriant	Variable reaction
Shigella boydii ATCC 12030	50-100	luxuriant	Negative reaction, no colour change
Staphylococcus aureus ATCC 25923	$\geq 10^3$	inhibited	

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

Prepared Media: 2-8° in sealable plastic bags for 2-5 days.

Further Reading

1. Mossel D.A.A., Visser M. and Cornellisen A.M.R., 1963, J. Appl. Bact., 26(3):444.
2. Van Schothorst M., et al, 1966, Vet Med., 13(3):273.
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.

Disclaimer :

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