69965 Mossel Broth
(Enterobacteriaceae Enrichment Broth acc. to Mossel; E.E. Broth; Buffered Glucose-Brilliant Green Bile Broth)

For the selective enrichment of all enterobacteriaceae from food and other material.

Composition:

Ingredients	Grams/Litre
Peptone	10.0
Glucose	5.0
Disodium hydrogen phosphate	6.45
Potassium dihydrogen phosphate	2.0
Ox-bile	20.0
Brilliant green	0.015
Final pH 7.2 +/- 0.2 at 25°C	

Store prepared media below 8°C, protected from direct light. Store dehydrated powder, in a dry place, in tightly-sealed containers at 2-25°C. Use before expiry date on the label.
Appearance: Faintly green to slightly beige coloured, homogeneous, free flowing powder.
Color and Clarity: green clear solution.

Directions:
Dissolve 43.5 g in 1 litre distilled water and heat at 100°C in water bath or flowing steam for 30 minutes. Cool quickly. This medium is heat sensitive. DO NOT AUTOCLAVE.

Principle and Interpretation:
Mossel broth, formulated by Mossel et al (1) is recommended as an enrichment medium for Enterobacteriaceae in the
biological examination of foods (1) and animal feed stuffs (2).
May some organisms become sublethally injured because of pH changes, exposure to steam or heat and other unfavourable conditions like e.g. drying (3). Such cells are resuscitated in well-aerated Tryptone Soya Broth for 2 hours at 25°C or with Buffered Peptone Water 16-20h at 30°C (4) prior to enrichment in Mossel Broth. The resuscitation procedure is recommended for dried foods (5), animal feeds (6) and semi-preserved foods (7). Mossel Broth should be used in conjunction with Violet Red Bile Glucose Agar (VRBGA). Typical purple colonies from VRBGA are subcultured for biochemical confirmation by oxidase test and fermentation reactions in Glucose Bromcresol Purple Agar (4).
EE Broth Mossel Enrichment is used to detect and enumerate Enterobacteriaceae found per mL or per g of test sample of food when performing the Most Probable Number (MPN) technique with pre-enrichment (4,9).
Peptone provides the necessary nitrogenous compounds and other important nutrients for the growth of microorganisms. Glucose is the carbohydrate source for the Enterobacteriaceae. The phosphate salt is used to stabilize the pH. Ox-bile and brilliant green extensively inhibit the growth of accompanying flora, in particular gram-positive microorganisms.

Cultural characteristics observed after 18-24 hours after incubation at 30-35°C.

Organisms (ATCC)	Growth	Acid*
Escherichia coli (25922)	+++	+
Escherichia coli (8739)	+++	+
Pseudomonas aeruginosa (9027)	+++	+
Staphylococcus aureus (25923)	-	
Pseudomonas aeruginosa (27853)	+++	+
Enterobacter aerogenes (13048)	+++	+
Proteus mirabilis (25933)	+++	+
Salmonella Enteritidis (13076)	+++	variable
Shigella boydii (12030)	+++	-

* acid production: if positive reaction the color of media change to yellow

References:

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Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.