



## E E Broth, Modified

M287A

Recommended as an enrichment medium for *Enterobacteriaceae* in the bacteriological examination of foods and animal feed stuffs.

### Composition\*\*

Ingredients	Gms / Litre
Pancreatic digest of gelatin	10.000
Glucose monohydrate	5.000
Disodium hydrogen phosphate, dihydrate	8.000
Potassium dihydrogen phosphate	2.000
Ox bile, dried	20.000
Brilliant green	0.015
Final pH ( at 25°C)	7.2±0.2

\*\*Formula adjusted, standardized to suit performance parameters

### Directions

Suspend 42.93 grams (the equivalent weight of dehydrated medium per litre) in 1000 ml distilled water. Distribute in 120 ml amounts in 250 ml flasks or 9 ml 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. Cool rapidly in cold running water. DO NOT AUTOCLAVE.

### Principle And Interpretation

EE Broth, Modified is recommended as an enrichment medium for *Enterobacteriaceae* in bacteriological examination of foods and animal feed stuffs. Pancreatic digest of gelatin, dextrose allow the growth of most of the members of *Enterobacteriaceae*. Incorporation of brilliant green and ox bile makes the medium, inhibitory to non-*Enterobacteriaceae*. Lactose non fermenters, anaerogenic lactose fermenters or late lactose fermenters may be missed by the standard 'Coli-aerogenes' test. To overcome this problem, lactose is replaced by glucose in the media.

The cells damaged due to drying or exposure to low pH are resuscitated in well-aerated Tryptone Soya Broth (M011) for 2 hours at 25°C prior to enrichment. The resuscitation procedure is recommended for dried foods (1), animal feeds (2) and semi-preserved foods (3). This medium should be used in conjunction with Violet Red Bile Glucose Agar without Lactose (M581). Subcultures must be made onto lactose differential media as MacConkey Agar w/ 0.15% Bile salts, CV and NaCl (M081) and Deoxycholate Citrate Agar (M065)

### Quality Control

#### 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 4.3% w/v aqueous solution at 25°C. pH : 7.2±0.2

#### pH

7.00-7.40

#### Cultural Response

M287A: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth	Acid
<b>Cultural Response</b> <i>Enterobacter aerogenes</i> ATCC 13048	50-100	luxuriant	Positive reaction, yellow colour

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<i>Escherichia coli</i> ATCC 25922	50-100	luxuriant	Positive reaction, yellow colour
<i>Proteus mirabilis</i> ATCC 25933	50-100	luxuriant	Positive reaction, yellow colour
<i>Salmonella Enteritidis</i> ATCC 13076	50-100	luxuriant	Variable reaction
<i>Shigella boydii</i> ATCC 12030	50-100	luxuriant	Negative reaction, no colour change
<i>Staphylococcus aureus</i> ATCC 25923	$\geq 10^3$	inhibited	

### Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label.

### Reference

1. Mossel D.A.A. and Ratto M.A., 1970, Appl. Microbiol., 20:273.
2. Mossel D.A.A. and Shennan J.L. and Clare V., 1973, J. Sci. Fd. Agric., 24 : 499.
3. Mossel D.A.A., Ratto M.A., 1973, J. Fd. Technol., 8 : 97.

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