



## EE Broth, Mossel | AS-1214

For detection and selective enrichment of *Enterobacteriaceae*, especially from food and other materials.

A selective enrichment medium called EE Broth Mossel is intended for the identification and counting of *Enterobacteriaceae* in food and animal feed. Developed by Mossel et al., it uses a mix of glucose and pancreatic digest of animal tissue to promote bacterial growth while inhibiting Gram-positive germs using ox bile and brilliant green. *Enterobacteriaceae* that have been sublethally wounded can benefit greatly from this medium; however, they may need to be resuscitated in non-selective broths such as Tryptone Soya Broth or Buffered Peptone Water before being further enhanced. For further isolation and identification, EE Broth is used in combination with selective plating media, like Violet Red Bile Glucose Agar. EE Broth samples are frequently used to quantify *Enterobacteriaceae* using the Most Probable Number (MPN) approach.

**Note:** sample type, expected microbial load, and physiological state of target microorganisms, affect the effectiveness of the medium.

### Composition (gr/L)

|                                    |      |
|------------------------------------|------|
| Pancreatic Digest of Animal Tissue | 10   |
| Dextrose                           | 5    |
| Ox gall                            | 20   |
| Disodium Phosphate                 | 6.45 |
| Monopotassium Phosphate            | 2    |

|                  |           |
|------------------|-----------|
| Brilliant Green  | 0.0135    |
| Final pH at 25°C | 7.2 ± 0.2 |

### Preparation

Dissolve 45 g of the powder into 1 liter distilled water. Mix well. Media is heat sensitive, DO NOT OVERHEAT. Pour into tubes. For 30 minutes, heat in 100 °C water bath or flowing steam. Also, you can autoclave under a mild condition (for 5 minutes at 121 °C).

### Quality Control

Dehydrated Appearance: Blue green, free-flowing, homogeneous.

Prepared Appearance: Emerald green, clear.

Reaction of 4.5% Solution at 25°C: pH 7.2 ± 0.2

### Microbial Test Results

Incubate at 35±2 °C for 18 to 48 hours.

| Organism (ATCC)                       | Recovery                      | Acid       |
|---------------------------------------|-------------------------------|------------|
| <i>Escherichia coli</i> (25922)       | Good                          | + (Yellow) |
| <i>Enterobacter aerogenes</i> (13048) | Growth                        | + (Yellow) |
| <i>Staphylococcus aureus</i> (25923)  | Marked to complete inhibition | -          |
| <i>Shigella boydii</i> (12030)        | Good                          | -          |

### Storage

Keep the container at 15-30 °C and prepared medium at 2-8 °C.