**EC Medium (EC broth)**

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| **Product No.** | **Product Category** | **Specification** |
| HCM005 | Dehydrated Culture Medium | 500g/bottle |

**Intended Use**

For the selective enrichment, enumeration and confirmation of coliform bacteria from food and animal feed and other materials.

**Principle and Interpretation**

The lactose content of this medium favors the growth of lactose-positive bacteria, especially of coliform bacteria and *E. coli*. The bile salts, however, largely inhibit the growth of Gram-positive bacteria or microorganisms which are not adapted to the intestinal environment. Lactose-positive bacteria metabolize lactose with gas formation.

**Formulation**

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| **Ingredients** | **/liter** |
| Tryptose or trypticase ( Enzymatic digest of casein) | 20.0g |
| Lactose | 5.0g |
| Bile Salts No. 3 | 1.5g |
| K2HPO4 | 4.0g |
| KH2PO4 | 1.5g |
| NaCl | 5.0g |
| pH6.9±0.2 at 25°C | |

**Preparation**

Dissolve 37 g in 1 L of purified water. Dispense into tubes containing Durham tubes. Autoclave 15 min at 121 °C. The Durham tubes shall not contain any air bubbles after autoclaving.

**Quality Control**

Cultural characteristics observed after incubation at 43-45°C for 24 hours

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| **Quality control strains** | **Approx. Inoculum(CFU)** | Expected Results | |
| Growth | Gas |
| *Escherichia coli*  ATCC25922 | 10-100 | Turbid growth | Positive |
| *Staphylococcus aureus* ATCC6538 | > 104 | Partial to complete inhibition | Negative |

**Storage and Shelf Life**

2-30℃，Keep container tightly closed, avoid direct sunlight.

Use before expiry date on the label.

**Precautions**

1. When weighing the dehydrated medium, please wear masks to avoid causing respiratory system discomfort

2. Keep container tightly closed after using to prevent clumping.

**Waste Disposal**

Microbiological contamination was disposed by autoclaving at 121°C for 30 minutes.

**Revision**

On June 14, 2024

**References**

ISO7251-2005 microbiology of food and animal feeding stuffs ----- Horizontal method for the detection and enumeration of presumptive Escherichia coli ---- Most probable number technique.

BAM Media M49: EC Broth