**Lauryl Sulfate Tryptose Broth**

|  |  |  |
| --- | --- | --- |
| **Product No.** | **Product Category** | **Specification** |
| HCM003 | Dehydrated Culture Medium | 500g/bottle |

**Intended Use**

For the presumptive testing for coliform and their selective enrichment in the examination of water, dairy products and foodstuffs.

**Principle and Interpretation**

Tryptose or trypticase provides the nitrogen, carbon compounds, vitamins and amino acids. Lactose is the fermentable sugar. Sodium lauryl sulphate inhibits organisms other than coliforms. Bile salts inhibit gram-positive bacteria especially bacilli and faecal Streptococci. Sodium chloride maintains the osmotic balance of the medium. Potassium phosphates control the pH during fermentation of lactose. Lactose positive bacteria metabolize lactose with gas formation, within 24 hours or less is a presumptive evidence of the presence of coliform bacteria.

**Formulation**

|  |  |
| --- | --- |
| **Ingredients** | **/liter** |
| Tryptose or trypticase | 20.0g |
| Lactose | 5.0g |
| Sodium chloride | 5.0g |
| Potassium dihydrogen phosphate | 2.75g |
| Dipotassium hydrogen phosphate | 2.75g |
| Sodium lauryl sulfate | 0.1g |
| pH6.8±0.2 at 25°C | |

**Preparation**

Dissolve 35.6g in 1L distilled or deionized water. Distribute to convenient flasks or disspense 10mL into each test-tubes containing inverted Durham tubes. Sterilize by autoclaving at 121°C for 15 minutes. Cool down slowly to prevent bubbles in Durham-tubes.

**Quality Control**

Cultural characteristics observed after incubation at 35-37°C for18~ 24 hours.

|  |  |  |  |
| --- | --- | --- | --- |
| **Quality control strains** | **Approx Inoculum(CFU)** | Expected Results | |
| Growth | Gas |
| *Escherichia coli* ATCC25922 | 10-100 | Turbid growth | Positive |
| *Salmonella typhimurium* ATCC14028 | >103 | Turbid growth | Negative |
| *Staphylococcus aureus* ATCC6538 | >103 | Partial to complete inhibition | Negative |

**Storage and Shelf Life**

1. Store the dehydrated culture medium at 2-30°C. Keep container tightly closed and avoid direct sunlight.

2. 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 1, 2025

**References**

1. ISO 4831: 2006, Microbiology of food and animal feeding stuffs - Horizontal method for the detection and enumeration of coliforms - Most probable number technique.

2. ISO7251: 2005, mMicrobiology of food and animal feeding stuffs - Horizontal method for the detection and enumeration of presumptive *Escherichia coli* - Most probable number technique.

3. BAM Media M76: Lauryl Tryptose (LST) Broth.