**Fraser Broth Base**

|  |  |  |
| --- | --- | --- |
| **Product No.** | **Product Category** | **Specification** |
| HCM023 | Dehydrated Culture Medium | 500g /bottle |

**Intended Use**

For selective enrichment culture of *Listeria monocytogenes* in food.

**Principle and Interpretation**

Tryptone, proteose peptone, meat extract, yeast paste powder provide nitrogen sources, vitamins, amino acids, and growth factors; sodium chloride can maintain a balanced osmotic pressure; sodium dihydrogen phosphate and potassium dihydrogen phosphate as buffering agents; esculin are fermentable sugars; lithium chloride and other antibiotics can inhibit Gram negative bacteria and most Gram positive bacteria.

**Formulation**

|  |  |
| --- | --- |
| **Ingredients** | **/liter** |
| Enzymatic digest of animal tissues　( Proteose peptone) | 5.0g |
| Enzymatic digest of casein　( Tryptone) | 5.0g |
| Meat extract | 5.0g |
| Yeast extract | 5.0g |
| Sodium chloride | 20.0g |
| Disodium hydrogen phosphate dihydrate | 12.0g |
| Potassium dihydrogen phosphate | 1.35g |
| Aesculin | 1.0g |
| Lithium chloride | 3.0g |
| pH7.2±0.2 at 25°C | |

**Preparation**

Suspend 57.4g in 1 L of distilled or deionized water. Heat with frequent agitation and boil to completely dissolve the powder. Distribute into flasks. Autoclave at 121℃ for 15 minutes. Cool to 45-50℃,aseptically add the contents of 1 vial of Fraser Selective Supplement (SR0120) to each 225 mL of base to prepare FB1 solution; Add one reagent (SR0130) to each100 mL of FB2 culture medium to prepare FB2 enrichment solution.

**Quality Control**

Cultural characteristics observed after incubation at 35-37°C for 46~50 hours

|  |  |  |
| --- | --- | --- |
| **Quality control strains** | **Growth** | **Characteristics** |
| *Listeria monocytogenes* ATCC19115  + *Escherichia coli* ATCC25922  + *Enterococcus faecalis* ATCC29212 | >20 cfu On PALCAM | Gray to black colony count with black halo |
| *Escherichia coli* ATCC25922 | < 100 colonies on TSA | Inhibition |
| *Enterococcus faecalis* ATCC29212 |

**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**

ISO 11290