



PSB Broth Base

M941

PSB Broth Base is recommended for primary enrichment and enumeration of *Yersinia enterocolitica* from foods.

Composition**

Ingredients	Gms / Litre
Peptic digest of animal tissue	20.000
Sodium chloride	10.000
Disodium phosphate anhydrous	18.000
Monopotassium phosphate monohydrate	3.000
Final pH (at 25°C)	7.5±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 50.64 grams of dehydrated medium in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Dispense in tubes and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to room temperature and aseptically add filter sterilized Cycloheximide solution to a final concentration of 100 mg / litre of medium.

Principle And Interpretation

Yersinia enterocolitica are ubiquitous, being isolated frequently from soil, water, animals, and a variety of foods. They comprise a biochemically heterogeneous group that can grow at refrigeration temperatures. PSB Broth Base is recommended by APHA (1) for the primary enrichment of *Yersinia* species.

Peptic digest of animal tissue provides essential growth nutrients. Sodium chloride maintains osmotic equilibrium while phosphates buffer the medium well.

Inoculate 25 grams of food sample to 225 ml of PSB Broth Base and incubate at 4°C for 14-28 days. 1 ml of this primary enrichment is inoculated in 100 ml of PSTA Enrichment Broth Base (M940) and incubated at 28°C for 48 hours. This secondary enrichment is then streaked on SS Agar (M108), *Yersinia* Selective Agar Base (M843).

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Light yellow coloured clear to very slightly hazy solution

Reaction

Reaction of 5.1% w/v aqueous solution at 25°C. pH : 7.5±0.2 pH : 7.5±0.2

pH

7.30-7.70

Cultural Response

Cultural characteristics observed after an incubation at 25-30°C for 3-5 days or at refrigeration temperature for 14-28 days, with added cycloheximide solution

Cultural Response

Organism	Inoculum (CFU)	Growth
Cultural Response		
<i>Yersinia enterocolitica</i> ATCC 27729	50-100	good-luxuriant
<i>Yersinia pseudotuberculosis</i> ATCC 19833	50-100	good-luxuriant

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. Speck M. (Ed.), 1984, Compendium of Methods for The Microbiological Examination of Foods, 3rd ed., APHA, Washington, D.C.

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