

TM 2270 – PSB BROTH MODIFIED (ISO 1994, ISO/DIS 10273)

INTENDED USE

For primary enrichment and enumeration of *Yersinia enterocolitica* from food.

PRODUCT SUMMARY AND EXPLANATION

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 for the primary enrichment of *Yersinia* species. PSB Broth Modified is a modification of PSB Broth recommended by ISO Committee. Supplementation of phosphate buffer with sorbitol and bile salts appears to be better for cold enrichment.

COMPOSITION

Ingredients	Gms / Ltr
Part I	
Peptic digest of animal tissue	5.000
Sodium chloride	5.000
Bile salts	1.500
Disodium phosphate, anhydrous	8.230
Monopotassium phosphate, monohydrate	1.200
Part II	
Sorbitol	10.000

PRINCIPLE

The medium consists of Peptic digest of animal tissue which provides essential growth nutrients. Sodium chloride maintains osmotic equilibrium while phosphates buffer the medium well. Sorbitol is the energy source. Bile salts are added to make the medium selective for *Yersinia* species by inhibiting accompanying gram-positive bacteria.

INSTRUCTION FOR USE

- Dissolve 20.77 grams of part I and 10 gram of part II 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 psi (121°C) for 15 minutes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Light yellow coloured clear to very slightly hazy solution.
pH (at 25°C) : 7.6 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation with added cycloheximide solution.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
<i>Yersinia enterocolitica</i>	27729	50-100	Good-luxuriant	25-30°C	3-5 Days
<i>Yersinia pseudotuberculosis</i>	19833	50-100	Good-luxuriant	25-30°C	3-5 Days

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 10-25°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.










Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. Speck M. (Ed.), 1984, Compendium of Methods for The Microbiological Examination of Foods, 3rd ed., APHA, Washington, D.C.
2. International Organization for Standardization(ISO), 1994, Draft, ISO/DIS 10273.

 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. Lot / Batch Number	 Consults Instructions for Use	 QR Code	

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**
Revision: 10 July., 2023