

## TM 1273 – PSTA ENRICHMENT BROTH BASE (PSB BROTH MODIFIED)

### INTENDED USE

For secondary enrichment of *Yersinia enterocolitica* from foods.

### 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. *Y. enterocolitica* has been detected in environmental and food sources, such as ponds, lakes, meats, ice cream, and milk. *Yersinia* species have the ability to grow at 4°C. Also they exhibit tolerance to dilute alkali. PSTA Enrichment Broth Base formulated in accordance with APHA, is recommended for secondary or selective enrichment of *Y. enterocolitica*. Secondary enrichment following primary enrichment is advantageous as it imparts higher selectivity, thereby increasing the chance of recovery or isolation of target organism.

### COMPOSITION

Ingredients	Gms / Ltr
Peptic digest of animal tissue	1.000
Sucrose	1.000
Tris hydroxymethyl aminomethane	3.000
Brilliant green	0.0125
Sodium azide	0.192

### PRINCIPLE

The medium consists of Peptic digest of animal tissue which provides nitrogen, vitamins and minerals necessary to support bacterial growth. Sucrose is the carbohydrate source. Brilliant green and sodium azide inhibits the growth of gram-negative organisms. About 25 grams of food sample is added to 225 ml of PSB Broth Base and incubated at 4°C for 14-28 days. 1 ml of this primary enrichment is inoculated in 100 ml of PSTA Enrichment Broth Base and incubated at 28°C for 48 hours. The secondary enrichment is then streaked on selective media such as SS Agar, *Yersinia* Selective Agar Base.

### INSTRUCTION FOR USE

- Dissolve 5.20 grams of in 1000 ml distilled water.
- Heat if necessary to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C and aseptically add Ampicillin to a final concentration 0.005 gm per litre. Mix well and dispense as desired.

### QUALITY CONTROL SPECIFICATIONS

- Appearance of Powder** : Light yellow to greenish yellow homogeneous free flowing powder.  
**Appearance of prepared medium** : Green coloured clear to slightly opalescent solution.  
**pH (at 25°C)** : 8.3 ± 0.2

### INTERPRETATION

Cultural characteristics observed after incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
<i>Yersinia enterocolitica</i>	27729	50-100	Good-luxuriant	28°C	48 Hours

**PACKAGING:**

In pack size of 100 gm and 500 gm bottles.

**STORAGE**

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°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. Pai C. H. and Mors V., 1978, Infect. Immun., 19: 908-911
2. Aulisic C. C. G., Mehlman I. J. and Sander A. C., 1980, Appl. Environ. Microbiol. 39: 135-140
3. Doyle M. P. and Hugdahl M. B., 1983, Appl. Environ. Microbiol., 45:127-135
4. Speck M. L., (Eds.), 1984, Compendium of Methods for the Microbiological Examination of Foods, 2nd Ed., APHA, Washington, D.C.

 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**  
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