

Technical Data

Yeast Extract Rose Bengal Broth Base

Yeast Extract Rose Bengal Broth is used for the cold enrichment, for the recovery of *Yersinia enterocolitica* and *Yersinia pseudotuberculosis* from food samples.

Composition**

Ingredients	Gms / Litre		
Yeast extract	5.000		
Disodium phosphate	17.250		
Bile salts	2.000		
Sodium chloride	1.000		
Magnesium sulphate	0.010		
Sodium pyruvate	1.000		
Rose bengal	0.040		
Final pH (at 25°C)	7.9 ± 0.2		
**Formula adjusted, standardized to suit performance parameters			

Directions

Suspend 26.3 grams in 900 ml distilled water. Heat if necessary, to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 20-25°C and aseptically add 100 ml of 4% filter sterilized sorbose solution. Mix well and dispense aseptically as desired.

Principle And Interpretation

Yersinioses are zoonotic infections that usually affect rodents, small animals and birds, while humans are accidental hosts.

Yersinia enterocolitica is a significant and invasive enteric pathogen that causes several well-recognized diseases, especially in younger persons, and several uncommon post-infection syndromes (1). *Yersinia pseudotuberculosis* causes a zoonotic disease with its natural reservoir being rodents, wild animals and game birds (2). Yeast Extract Rose Bengal Broth is formulated as recommended in APHA for enrichment of *Yersinia* species from foods (3), using the cold enrichment method. *Yersinia* species are psychrotropic and therefore grow at 4°C.Yeast extract provides essential nutrients. Bile salts inhibit gram-positive organisms. Various salts help in cold enrichment of *Yersinia* species.

Y. enterocolitica and *Y. pseudotuberculosis* can grow at 4° C, so primary enrichment is carried out in this medium for 9 days at 4° C or 3 days at 10° C (4). From this enrichment the organisms are further enriched in secondary selective enrichment medium such as PSTA Broth (M940) and then isolated by streaking onto selective plating media such as Yersinia Selective Agar (M843), SS Agar (M108) and MacConkey Agar (M082).

Quality Control

Appearance

Light yellow to pink homogeneous free flowing powder

Colour and Clarity of prepared medium

Reddish pink coloured clear solution without any precipitate.

Reaction

Reaction of the medium (2.63% w/v 90ml Base + 10 ml of 4% w/v sorbose) at 25°C. pH : 7.9 ± 0.2

pН

7.70-8.10

Cultural Response Cultural characterist

 $Cultural \ characteristics \ observed \ after \ incubation \ at \ 4^{\circ}C \ for \ 9-10 \ days \ or \ at \ 10^{\circ}C \ for \ 3 \ days \ with \ added \ sorbose \ solution.$

Cultural Response

Organism	Inoculum	Recovery
	(CFU)	

M955

Cultural Response

Yersinia enterocolitica	50-100	good-luxuriant
ATCC 27729		
Yersinia pseudotuberculosis	50-100	good-luxuriant
ATCC 29833		

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. Cover T. L. and Aber R. C., 1989, N. Engl. J. Med. 321:16-24

2. Murray P. R., Baron J. H., Pfaller M. A., Jorgensen J. H. and Yolken R. H., (Ed.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.

3. Speck M. L., (Ed.), 1984, Compendium of Methods for the Microbiological Examination of Foods, 2nd Ed., APHA, Washington, D.C.

4. Schiemann D. A., 1982, Appl. Environ. Microbiol., 43:14.

Revision : 02 / 2015

Disclaimer :

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia[™] publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia[™] Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.

HiMedia Laboratories Pvt. Ltd. A-516, Swastik Disha Business Park, Via Vadhani Ind. Est., LBS Marg, Mumbai-400086, India. Customer care No.: 022-6147 1919 Email: techhelp@himedialabs.com