

## TM 921 - YEAST EXTRACT ROSE BENGAL BROTH BASE

### INTENDED USE

For cold enrichment and recovery of *Yersinia enterocolitica* and *Yersinia pseudotuberculosis* from foods.

### PRODUCT SUMMARY AND EXPLANATION

Yeast Extract Rose Bengal Broth is formulated as recommended in APHA for enrichment of *Yersinia* species from foods, using the cold enrichment method. *Yersinia* species are psychotropic and therefore grow at 4°C. 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. *Yersinia pseudotuberculosis* causes a zoonotic disease with its natural reservoir being rodents, wild animals and game birds.

*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. From this enrichment the organisms are further enriched in secondary selective enrichment medium such as PSTA Broth and then isolated by streaking onto selective plating media such as Yersinia Selective Agar, SS Agar and MacConkey Agar.

### COMPOSITION

Ingredients	Gms / Ltr
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

### PRINCIPLE

Yeast extract provides essential nutrients. Bile salts inhibit gram-positive organisms. Various salts help in cold enrichment of *Yersinia* species.

### INSTRUCTION FOR USE

- Dissolve 26.3 grams in 900 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 20-25°C and aseptically add 100 ml of 4% filter sterilized sorbose solution.
- Mix well and dispense aseptically as desired

### QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Light yellow to pink homogeneous free flowing powder.
Appearance of prepared medium	: Reddish pink coloured clear solution without any precipitate.
pH (at 25°C)	: 7.9±0.2

### INTERPRETATION

Cultural characteristics observed after incubation at 4°C for 9-10 days or at 10°C for 3 days with added sorbose solution.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth
<i>Yersinia enterocolitica</i>	27729	50-100	Good-luxuriant
<i>Yersinia pseudotuberculosis</i>	29833	50-100	Good-luxuriant

#### PACKAGING:

In pack size of 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.

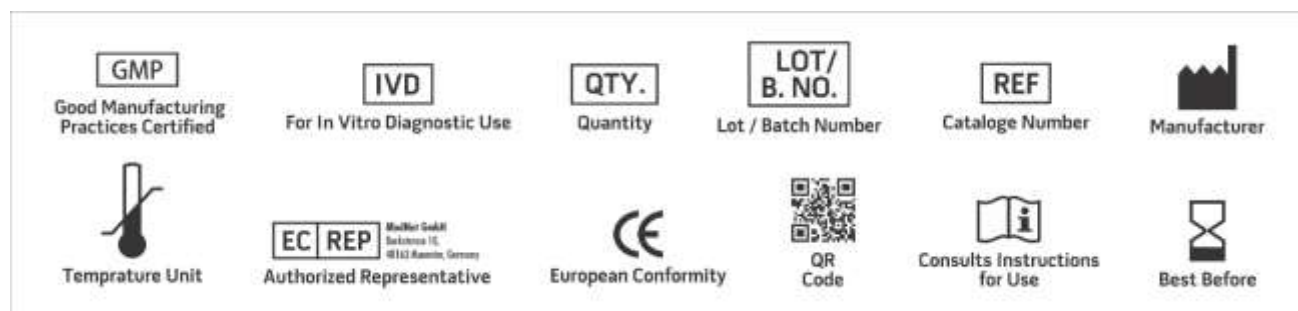
**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

#### DISPOSAL

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

#### REFERENCES

1. 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., Tenover J. C. and Tenover F. C., (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.



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



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\*For Lab Use Only  
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