

Yeast Extract Rose Bengal HiVeg™ Broth Base

MV955

Yeast Extract Rose Bengal HiVeg Broth Base is used in cold enrichment for recovery of *Yersinia enterocolitica* and *Yersinia pseudotuberculosis* from foods.

Composition ** :

Ingredients	Grams/Litre
Yeast extract	5.0
Disodium phosphate	17.25
Synthetic detergent	2.0
Sodium chloride	1.0
Magnesium sulphate	0.01
Sodium pyruvate	1.0
Rose Bengal	0.04

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 :

This medium is prepared by using synthetic detergent in place of bile salts that make the medium free of BSE/TSE risks. Yeast Extract Rose Bengal HiVeg Broth Base is the modification of Yeast Extract Rose Bengal Broth Base which is formulated as recommended by APHA for enrichment of *Yersinia* species from foods (1). Yeast extract provides essential nutrients. Synthetic detergent inhibit gram-positive organisms. Salts help in cold enrichment of *Yersinia* species.

Yersinia enterocolitica and *Yersinia 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 (2). From this enrichment medium the organisms are further enriched in secondary selective enrichment medium such as PSTA HiVeg Broth (MV940) and then isolated by streaking onto selective plating media such as *Yersinia* Selective HiVeg Agar (MV843), SS HiVeg Agar (MV108) and MacConkey HiVeg Agar (MV082).

Quality Control :**Appearance of powder**

Pink coloured, homogeneous, free flowing powder.

Colour and Clarity

Reddish pink coloured, clear solution without any precipitate.

Reaction

Reaction of the medium (2.63% w/v Base + 0.4% w/v sorbose in distilled water) is pH 7.9 ± 0.2 at 25°C.

Product Profile :

Vegetable based (Code MV)Ⓢ	Animal based (Code M)
MV955 Synthetic detergent	M955 Bile salts
Recommended for	: Cold enrichment in the recovery of <i>Yersinia enterocolitica</i> and <i>Yersinia pseudotuberculosis</i> from foods.
Reconstitution	: 26.30 g/l
Quantity on preparation (500g)	: 19.01 L
pH (25°C)	: 7.9 ± 0.2
Supplement	: 4 % filter-sterilized sorbose solution
Sterilization	: 121°C / 15 minutes.
Storage	: Dry Medium - Below 30°C, Prepared Medium 2 - 8°C.

Cultural Response

Cultural characteristics observed after an incubation at 4°C for 9-10 days.

Organisms (ATCC)

Yersinia enterocolitica (27729)

Yersinia pseudotuberculosis (29833)

Recovery

good-luxuriant

good-luxuriant

References :

- Downs F.P. and Ito K (Eds.), 2001, Compendium of Methods For The Microbiological Examination of Foods, 4th ed., APHA, Washington, D.C.
- Schiemann D.A., 1982, Appl. Environ. Microbiol., 43:14.

**MV955 Yeast Extract Rose Bengal HiVeg Broth Base**

- Control
- Yersinia enterocolitica*
- Yersinia pseudotuberculosis*