

SELENITE CYSTINE BROTH

Ready to use tubes

INTENDED USE

Ready to use enrichment liquid medium for the detection of *Salmonella* spp. in foodstuffs

TYPICAL FORMULA (g/l)

Tryptone	5.0
Lactose	4.0
Sodium Phosphate Bibasic	10.0
Sodium Acid Selenite	4.0
L-Cystine	0.01

Final pH 7.0 ± 0.1

DESCRIPTION

Selenite Cystine Broth is an enrichment liquid medium for the isolation of *Salmonella* spp. from foods and other specimens.

The medium complies with the requirements of USP for the detection of *Salmonella* in pharmaceutical products (Microbial Limit Tests). Selenite Cystine Broth is recommended by ISO 6579:1993, in the general guidance on methods for the detection of *Salmonella* in foodstuffs and by FDA BAM for the detection of *Salmonella* in food other than raw flesh foods, highly contaminated foods and animal feeds; for these foods FDA BAM recommends Tetrathionate Broth.

TECHNIQUE

For the preparation of initial suspension add 25g sample portion to 225ml of Buffered Peptone Water or Lactose Broth. If the required test portion is other than 25g, use a suitable quantity of pre-enrichment broth to yield approximately 1/10 dilution (m/v).

Incubate the initial suspension at 37°C for not less than 16 hours, but not more than 20 hours.

Transfer 1ml to a tube of Selenite Cystine Broth. For the second selective enrichment broth refer to the literature or to specific norms.

Incubate the inoculated Selenite Cystine Broth at 37°C for 24hrs and, if required by specific standards, for a further 24hrs. Subculture from the two enrichment broths to any combination of greater or lesser inhibitory plating out selective agar for *Salmonella*. USP recommends the use of Brilliant Green Agar, XLD Agar and Bismuth Sulphite Agar. FDA BAM recommends Hecktoen Enteric Agar, XLD Agar and Bismuth Sulphite Agar.

Any typical or suspected colony should be subjected to a biochemical and serological confirmation using a pure subculture in a nutrient agar plate.

Biochemical confirmation tests include: TSI Agar, Urea Agar, L-Lysine Decarboxylase Medium, detection of β-galactosidase, VP reaction, indole detection.

Serological confirmation includes the detection of the presence of *Salmonella* O-, Vi and H antigens by slide agglutination test.

Biochemical confirmation could be substituted with the rapid test MUCAP (REF 191500). All the colonies MUCAP positive must be serologically confirmed.

LIMITATION

Discard media if selenite oxidizes and forms large amounts of a red precipitate. Do not incubate over 24 hours. Selenite Cystine Broth doesn't inhibit *E.coli* and *Proteus* spp.

STORAGE

Store at 2-8° away from direct light - When stored as directed the tubed media remain stable until the expiry date shown on the label. Do not use beyond stated expiry date. Media should not be used if there are any signs of deterioration or contamination.

PRECAUTIONS

For *in vitro* diagnostic use only. Observe approved biohazard precautions and aseptic techniques. To be used only by adequately trained and qualified laboratory personnel. Sterilize all biohazard waste before disposal.

REFERENCES

- FDA (1995) Bacteriological Analytical Manual, 8th ed. Revision A, 1998. Published by AOAC International.
- ISO 6579: 1993 Microbiology - General guidance on methods for the detection of *Salmonella*.
- Leifson, E. (1936). Am. J. Hyg., **24**, 423432
- U.S. Pharmacopoeia 24, NF 19 (2000)

PACKAGING**552026****Selenite Broth****20 x 10 ml ready to use tubes**