

Selenite Cystine Broth

Cat. Numbers: TT130 / BP214

Pkg: TT130 - 20 tubes in a box, containing 4.0 ml of prepared medium
BP214 - 125 ml in septum capped bottle, 200 and 400 ml in a screw capped bottle

Exp. Date: Printed on label and on the item

Regulation: ISO 6579

Required materials not supplied: Laboratory equipment as required.

Purpose

Selenite Cystine Broth is recommended for the selective enrichment of *Salmonella* spp. in clinical and non-clinical specimens. Enrichment media are routinely employed for detection of pathogens in fecal specimens since the pathogens usually represent only a small percentage of the intestinal flora. Selenite Cystine Broth is recommended for use in the recovery of *Salmonella* with subcultures being made after 12-18 hours of incubation.

Composition

Ingredients Gms / Litre:

Sodium Phosphate	10.0
Tryptone	5.0
Lactose	4.0
Sodium Selenite	4.0

Appearance

Very light amber, clear to very slightly opalescent, may have a slight precipitate.

Final pH (at 25°C) 7.0 ±0.2

Procedures

For feces and other solid materials

- Suspend 1-2 g of the specimen in the broth (approximately 10-15% by volume) and emulsify with an inoculating needle, if necessary. Swab specimens may be inserted directly into the broth

- Incubate tubes with loosened caps at $35 \pm 2^{\circ}\text{C}$ for up to 24 hours.
- Place one to two drops of the incubated broth onto selective plate media, such as MacConkey or XLD Agar and streak for isolated colonies.
- Subcultures should be made after 12-18 hours of incubation, if possible. Coliforms will tend to overgrow the pathogens if incubated longer than 24 hours.

Cultural Response

Cultural characteristics observed after an incubation at $35\text{-}37^{\circ}\text{C}$ for 18-24 hours and sub-cultured on MacConkey agar.

Microorganism	Inoculum	Recovery on MacConkey
<i>Salmonella typhimurium</i> ATCC 14028	Up to 102 cfu	Good growth. Colorless
<i>Escherichia coli</i> ATCC 25922	105 cfu	Partially inhibited Pink with bile precipitate

Microbiological test: According to ISO 11133.

Storage

2-8° C

Limitations

The recovery of many Salmonella is greatly jeopardized if stool specimens remain unpreserved for more than three hours before processing. If there is to be a delay in processing, the specimen should be inoculated onto an appropriate transport medium and refrigerated until inoculation.

A brick red precipitate may appear if Selenite Cystine Broth is overheated during preparation or exposed to excessive moisture during storage.

Waste Disposal

After interpretation all items should be destroyed by standard incineration methods.