Instructions For Use
ENGLISH

Selenite Cystine Broth

Liquid medium for detection of *Salmonella* spp according to ISO 6785.

DESCRIPTION

Selenite Cystine Broth is a medium used for the selective enrichment of *Salmonella* spp from food, dairy products, water and other materials of sanitary importance.

This medium complies with the recommendations of ISO 6785, APHA and FDA, for the isolation of *Salmonella*.

TYPICAL FORMULA	(g/l)
Tryptone	5.0
Lactose	4.0
Sodium Phosphate	10.0
Sodium Selenite	4.0
L-Cystine	0.01
Final pH 7.0 ± 0.2 at 25°C	

METHOD PRINCIPLE

Tryptone provides amino acids, nitrogen, carbon, vitamins and minerals for organisms growth. Lactose is the fermentable carbohydrate. Sodium phosphate is the buffering agent. Sodium selenite inhibits Gram-positive and Gram-negative bacteria other then salmonellae. L-Cystine is a reducing agent incorporated to enhance the recovery capacity of the medium.

PREPARATION

Dehydrated medium: Suspend 23 g of the powder in 1 liter of distilled or deionized water. Mix well. Heat to boiling to dissolve completely. Avoid overheating. DO NOT AUTOCLAVE.

Note: Appearance of a red precipitate before inoculation indicates overheating of the medium, in which case the selective properties are significantly reduced.

TEST PROCEDURE

According to ISO 6785, transfer 10 ml of the pre-enrichment culture in Buffered Peptone Water (ref. 24099) to a bottle containing 100 ml of Selenite Cystine Broth. If tubes are being used rather than bottles, maintain the same proportion of 1:10 between the inoculum and the medium. Incubate at 37°C for 18-24 hours.

INTERPRETING RESULTS

Turbidity indicates microbial growth.

To complete the detection of salmonellae: Isolate on selective solid media, streak suspect colonies onto the surface of nutrient agar plates and confirm with biochemical and serological tests.

APPEARANCE

Dehydrated medium: free-flowing, homogeneous, off-white.
Prepared medium: clear to slightly opalescent, light amber, may have a slight precipitate.

STORAGE

The powder is very hygroscopic, store the powder at 10-30°C, in a dry environment, in its original container tightly closed. Store bottles and tubes at 2-8°C away from light. Do not use the product beyond its expiry date on the label or if product shows any evidence of contamination or any sign of deterioration.

SHELF LIFE

Dehydrated medium: 4 years.
Medium in tubes/bottles: 2 years.

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QUALITY CONTROL

The medium is inoculated with the microbial strains indicated in the QC table.
Inoculum for productivity: ≤100 CFU.
Incubation conditions: 18-24 h at 37 ± 1°C.

QC Table.

Microorganism		Growth
Salmonella Typhimurium	ATCC® 14028	Good
Escherichia coli	ATCC® 25922	Inhibited

WARNING AND PRECAUTIONS

The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. It is nevertheless recommended to consult the safety data sheet for its correct use. The product is intended for professional use only and must be used by properly trained operators.

DISPOSAL OF WASTE

Disposal of waste must be carried out according to national and local regulations in force.

BIBLIOGRAPHY

1. ISO 6785:2001, IDF 93:2001. Milk and milk products – Detection of *Salmonella* spp.
2. Downes F., P. & K. Ito (2001) Compendium of methods for the microbiological examination of foods. 4th ed. APHA. Washington, DC, USA.
3. FDA (1998) Bacteriological Analytical Manual 8th ed. Revision A. AOAC International. Gaithersburg, VA, USA.
4. Leifson E. (1936) A new Selenite Selective Enrichment Media for the Isolation of Typhoid and Paratyphoid (Salmonella) Bacilli. Am. J. Hyg. 24:423-432.

PRESENTATION		Contents	Ref.
Selenite Cystine Broth	Tubes	20 x 10 ml tubes	24510
Selenite Cystine Broth	Bottles	6 x 100 ml bottles	402390
Selenite Cystine Broth	Dehydrated medium	500 g of powder	610150
Selenite Cystine Broth	Dehydrated medium	100 g of powder	620150

TABLE OF SYMBOLS

LOT	Batch code		Keep away from sunlight		Manufacturer		Use by		Fragile, handle with care
REF	Catalogue number		Temperature limitation		Contains sufficient for <n> tests		Caution, consult Instruction For Use		Do not reuse

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