

## SELENITE BROTH BASE SELENITE BROTH

**IVD in Class A, EU Reg. 2017/746**

 For in vitro diagnostic use **IVD**

Selenite Broth is an enrichment medium for the isolation of Salmonella and some species of Shigella from clinical and nonclinical samples.

### DESCRIPTION

Selenite Broth is an enrichment medium for the isolation of Salmonella and some species of Shigella from clinical and nonclinical samples. This medium is prepared according to the original formula described as Selenite F Broth by Leifson and recommended by the American Public Health Association for the examination of food.

### PRINCIPLE

The casein peptone provides essential nitrogenous and carbon compounds. The lactose in the medium serves to maintain a uniform pH. When selenite is reduced by the growth of bacteria, alkali is produced and such increase in pH would lessen the toxicity of the selenite and result in overgrowth of extraneous bacteria. The acid produced by lactose fermentation serves to maintain a neutral or slightly decreased pH. The function of the phosphate is two-fold; it serves to maintain a stable pH and also lessens the toxicity of the selenite, thus increasing the capacity of the medium. Sodium selenite inhibits many species of gram-positive and gram-negative bacteria including enterococci and coliforms.

### SELENITE BROTH BASE

COMPOSITION	g/L
Enzymatic Digest of Casein	5,0
Lactose	4,0
Sodium Phosphate	10,0

**Final pH 7,0± 0,2 at 25°C**

### SELENITE BROTH

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Enzymatic Digest of Casein	5,0
Lactose	4,0
Sodium Phosphate	10,0
Sodium selenite	4,0

**Final pH 7,0± 0,2 at 25°C**

### WARNING AND PRECAUTIONS

#### For in vitro diagnostic use.

Observe the precautions normally taken when handling laboratory reagents.

**Dehydrated medium: HIGHLY HYGROSCOPIC.** During the handling, wear dust protection mask. Avoid the eye contact. Do not use beyond the expiration date or if the product shows signs of deterioration, an altered color or has compacted.

**Prepared Medium:** The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous.

**Safety Data Sheet** is available on request for professional users.

All waste must be disposed of according to local directives.

### STORAGE AND STABILITY

<b>Dehydrated medium:</b>	10-30°C
<b>Prepared medium:</b>	2-8°C

SELENITE BROTH is stable until the expiration date indicated on the label under the recommended storage conditions.

### PREPARATION

**Dehydrated medium:** Suspend 4 g of Sodium Biselenite in 1 liter of distilled water and then add 19.0 g of Selenite Broth Base. Slowly bring to a boil, stirring until completely dissolved. To leave boil for 2 minutes. Do not autoclave. Cool quickly. Distribute in sterile tubes or bottles by filling the containers up to 2/3 of the volume.

Storage after preparation in the laboratory:

Store bottles and tubes for up to 1 month at 2-8 °C.

Note: Excessive heating of the medium causes the formation of a red-colored selenium precipitate. The medium, thus denatured, must be discarded. To increase the validity of the product ready for use, we recommend the sterilization using the membrane filtration method.

**Prepared medium (bottles, tubes):** ready to use.

### PROCEDURE

Inoculate the tube with 1-2 g of stool specimen or other solid material (approximately 10-15% by volume) and emulsify in the broth. For urines, the broth should be used at double concentration and inoculated with its own volume of the specimen. Incubate at 35 ± 2°C for 12-24 hours (coliforms may overgrow the pathogens if incubated for longer than 24 hours).

### RESULTS

Turbidity indicates microbial growth. Subculture to a selective and differential enteric plated medium, such as XLD Agar, Hektoen Enteric Agar or MacConkey Agar, streaking for isolation. Examine for typical colony morphology. Confirm with further biochemical tests.

### QUALITY CONTROL

**Dehydrated medium:** free-flowing, homogeneous, white to light beige.

**Prepared medium:** clear, very pale yellow.

Typical response after incubation at 35±2°C for 18-24 hours:

MICROORGANISM	GROWTH
Salmonella Typhimurium ATCC® 14028	Good
Shigella sonnei ATCC® 25931	Good
Escherichia coli ATCC® 25922	Partially to completely inhibited

### REFERENCES

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### PRESENTATION Packaging REF

Dehydrated medium: SELENITE BROTH (BASE)		
	100 g (4,34 L)	11159
	500 g (21,7 L)	10159
<b>Supplement:</b> SODIUM SELENITE	100 g	15097
	(100 g for 500 g di SELENITE BROTH BASE)	
<b>Prepared medium:</b> SELENITE BROTH		
	6 x 100 mL bottles	64317
	6 x 200 mL bottles	64217
	100 x 2 mL tubes	5278
	20 x 10 mL tubes	5110/20
	100 x 10 mL tubes	5110/A

### SYMBOLS

	Read the instructions		Biological hazard
	CE Mark (product complies with the requirements of Regulation (EU) 746/2017)		
	Temperature limitation		Use by
	For in vitro diagnostic use		Manufacturer