70153 Selenite Broth (Base)

A selective enrichment medium for *Salmonella* (including *S. typhosa*) from stool, urine, food or other pathological material.

Composition:

Ingredients	Grams/Litre
Bacteriological peptone	5.0
Lactose	4.0
Sodium phosphate	10.0
Final pH 7.0 +/- 0.2 at 25°C	

Store prepared media below 8°C, protected from direct light. Store dehydrated powder, in a dry place, in tightly-sealed containers at 2-25°C.

Directions:
Dissolve 4 g of sodium hydrogen selenite (Prod No 71658) in 1 litre of distilled water and then add 19 g of Selenite Broth (Base) powder. Warm to dissolve, mix well and fill containers to a depth of 5 cm. Sterilize in a boiling water bath, or in free flowing steam, for 10 minutes. Do not autoclave!

Principle and Interpretation:
Bacteriological peptone is a nitrogen, sulfur, carbon, vitamin and mineral source. Lactose is the fermentable carbohydrate.Due to the production of acid during fermentation, the pH remains neutral. Sodium phosphate maintains a stable pH and lessens the toxicity of selenite. An increase in pH also lessens the toxicity of selenite. Selenite inhibits the growth of gram-positive bacteria, coliform bacteria and enterococci in the first 6-12 hours of incubation. *Salmonella*, *Proteus* and *Pseudomonas* are only slightly inhibited.
Enriched broth is subcultured on differential plating media such as Bismuth sulfite Agar (95388), Brilliant Green Agar, modified (Prod No 70134), Brilliant Green Phenol Red Lactose Sucrose Agar (Prod No 16026) Mac Conkey MUG Agar (Prod No 63014), Sallmonella *ChromoSelect* Agar (Prod No 78419) and XLD Agar (Prod No 95586). Do not incubate the broth longer than 24 hours due to the falling toxicity of selenite.

Cultural characteristics after 18-24 hours at 35°C.

Organisms (ATCC)	Recovery
Salmonella typhimurium (14028)	+++
Salmonella choleraesuis (12011)	+++
Salmonella typhi (6539)	+++
Escherichia coli (25922)	no increase in numbers

References:
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Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.