Reference: TUWR3015 **A.B.E. - Technical Data Sheet**

Product: **Selenite Broth**

Specification

Liquid medium used for the enrichment of *Salmonella and Shigella* from clinical specimens and other products according to ISO standards.

Presentation

	Packaging Details	Shelf Life	Storage
20 Tubes Tube 16 x 113 mm with: 10 ± 0.3 ml	16x113 mm glass tubes, ink labelled, metal-Non injectable cap. - 20 tubes per box	9 months	8-25 °C

Composition

Composition (g/l):

Tryptone	5.0
Lactose	4.0
Disodium hydrogenphosphate	10.0
Sodium selenite	4.0

Description /Technique

It is essentially an enrichment medium for Salmonella found in food or pathological materials, such as faeces or urine. It is used as an initial step prior to isolation on selective media such as SS Agar or Hektoen Agar.
Essentially, it is an enrichment medium for Salmonella coming from food or pathologic materials, such as faeces or urine, in a previous step to isolation in selective media plates, such as Agar SS or Hektoen Agar.
For normal assays it is advisable an incubation at 37°C for a period never superior to 18 hours, since within that period a good nutrition of coliforms and an enhancement of pathogens is reached, but after 24 hours that effect seems to disappear and the growth of companion flora may hide salmonella.
Red precipitate apparition before inoculation means the medium has been overheated, in which case the selective properties are worse.
Presence of copious sample residuum may also inactivate the selective power of the medium, overall if sample is faeces and egg powder. In this case, it is better to make a dilution 1:10 and let it settle to separate the biggest particles, then inoculate Selenite cystine broth with an aliquot portion of it, maintaining the proportion 1:10 between sample and medium.
It has been demonstrated that when it is desired to isolate *Salmonella* from faeces, results are better if enrichment medium incubation is performed at 43°C. This procedure only seems to fail with *Salmonella typhi.*
When starting material is urine, the best procedure is to use Selenite cystine broth in double concentration, and to inoculate it in an equal volume of urine. Anyway, subculture must always be done after 6 hours of incubation and before 24 hours. Most authors recommend the simultaneous use of another enrichment broth, such as Tetrathionate broth.

Precautions
For in vitro diagnostic use. Do not reuse. For professional use only.
Do not use the product if it shows evidence of microbial contamination, discoloration, drying, cracking or other signs of deterioration.

Quality control

Physical/Chemical control

Color : Yellow - orange pH: 7.0 ± 0.2 at 25ºC

Microbiological control

Inoculate: Practical range 100 ± 20 CFU. min. 50 CFU (productivity)/ 10^4-10^6 (selectivity).

Microbiological control according to ISO 11133:2014/A1:2018.

Analytical methodology according to ISO 11133:2014/A1:2018; A2:2020.

Aerobiosis. Incubation at 37 ± 1 ºC, reading after 24 ± 3 h

Growthing results in XLD Agar during 18-24 hours at 36 ± 2 ºC

Microorganism	Growth
Escherichia coli ATCC® 25922, WDCM 00013	Partial Inhibition - Pink
Salmonella enterica ATCC® 13076, WDCM 00030	Good - Colourless colonies with black centre
Salmonella typhimurium ATCC® 14028, WDCM 00031	Good - Colourless colonies with black centre
Mezcla : Salmonella (14028) + E. coli (8739)	Good

Sterility control

Incubation 48 h at 30-35 ºC and 48 h at 20-25 ºC: NO GROWTH.
Check at 7 days after incubation in same conditions.

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