TM 2309 - SBG ENRICHMENT BRO TH, MODIFIED (DOUBLE PACK)

INTENDED USE

For Selective Enrichment of Salmonella species.

PRODUCT SUMMARY AND EXPLANATION

SBG (Selenite Brilliant Green) Enrichment Broth, Modified is a selective enrichment for *Salmonella species*. They are gram-negative, facultatively anaerobic, non-sporulating, motile rods in the family *Enterobacteriaceae*. These organisms are difficult to differentiate biochemically from *Escherichia col*i. Leifsons Selenite Medium and Kauffmanns Modified.

Tetrathionate Medium have been widely used as enrichment medium for the isolation of *Salmonella*. The medium is not as inhibitory since it has neither Sodium taurocholate nor Sodium sulfapyridine.

1 gram or 1 ml of test material is inoculated in 10 ml of the medium and incubated at 35-37°C for 18-24 hours. Following incubation, a loopful of the enriched culture is streaked on SS Agar, MacConkey Agar or other plates for the isolation of *Salmonella*.

COMPOSITION

Ingredients	Gms / Ltr
Part I	
Peptone	5.000
D-Mannitol	5.000
Yeast extract	5.000
Dipotassium hydrogen phosphate	2.650
Brilliant green	0.005
Potassium dihydrogen phosphate	1.020
Part II	
Sodium selenite	4.000

PRINCIPLE

Peptone and yeast extract provide nitrogenous compounds, carbon, sulphur, vitamin B complex and trace elements necessary for the growth of organisms. Mannitol is the fermentable carbohydrate. Mannitol is utilized by *Salmonella* as an energy source, but it cannot be utilized by *Proteus*. Phosphates buffer the medium well. Brilliant green and sodium hydrogen selenite, inhibit the growth of gram-positive organisms and enteric organisms except *Salmonella* species.

INSTRUCTION FOR USE

- Dissolve 18.67 grams of Part I in 1000 ml distilled water, add 4 grams of Part II.
- Heat to boiling for 5 to 10 minutes. Do not autoclave or overheat.
- Dispense in sterile tubes.
  Caution: Sodium hydrogen selenite (Sodium biselenite) is very toxic, corrosive agent and causes teratogenicity. So it should be handled with great care. If there is contact with skin wash immediately with lot of water.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Part I: Cream to greenish yellow homogeneous free flowing powder.
Part II: White to cream homogeneous free flowing powder.

Appearance of prepared medium : Light green coloured clear to slightly opalescent solution.

pH (at 25°C) : 7.4±0.2

INTERPRETATION

Cultural characteristics observed after incubation when subculturing on MacConkey Agar.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of the colony	Incubation Temperature	Incubation Period
Salmonella Choleraesuis	12011	50-100	Luxuriant	>=70%	Colourless	35 - 37°C	18 - 24 Hours
Salmonella Typhi	6539	50-100	Luxuriant	>=70%	Colourless	35 - 37°C	18 - 24 Hours
Salmonella Typhimurium	14028	50-100	Luxuriant	>=70%	Colourless	35 - 37°C	18 - 24 Hours
Klebsiella aerogenes	13048	50-100	None-poor	0-10%	Pink to colourless	35 - 37°C	18 - 24 Hours
Escherichia coli	25922	50-100	None-poor	0-10%	Pink with bile precipitation	35 - 37°C	18 - 24 Hours

PACKAGING:

In pack size of 100 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

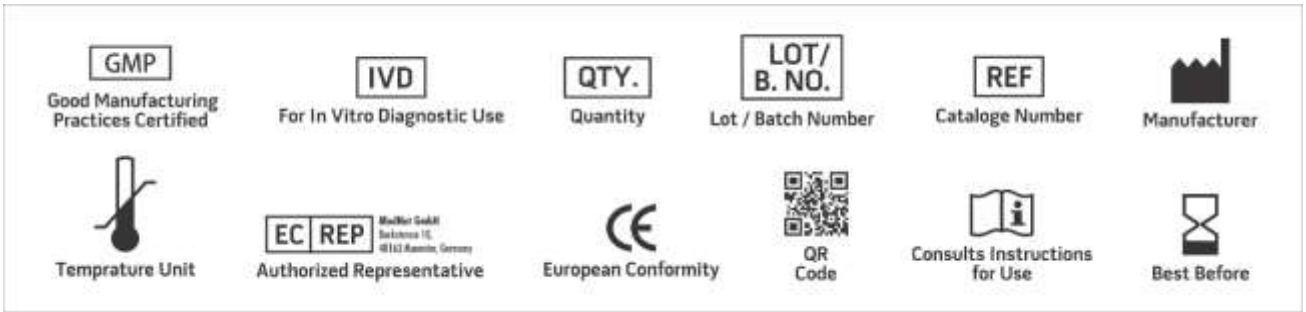
DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. American Public Health Association, Standard Methods for the Examination of Dairy Products, 1978, 14th Ed. Washington D.C.

2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
3. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
4. Leifson, 1955, Appl. Microbiol. 3:295
5. Meal and meat products-detection of *Salmonella* (reference method). ISO 3565(1975).
6. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
7. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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