

## SS Agar (Salmonella Shigella Agar)

### Intended Use

Recommended for the isolation of Salmonella and some Shigella species from pathological specimens, suspected foodstuffs and other materials.

### Typical Composition (g/litre)

HM peptone B # 5.0 ; Lactose 10.0 ; Bile salts mixture 8.5 ; Sodium citrate 10.0 ; Sodium thiosulphate 8.5 ; Ferric citrate 1.0 ; Brilliant green 0.00033 ; Neutral red 0.025 ; Agar 15. Final pH 7.0±0.2 at 25°C

### Mode of Action

SS Agar medium is recommended as differential and selective medium for the isolation of Salmonella and Shigella species from pathological specimens and suspected foodstuffs and for microbial limit test. SS Agar is a moderately selective medium in which gram-positive bacteria are inhibited by bile salts, brilliant green and sodium citrate. Sulfide production is detected by using thiosulfate and iron ions, the colonies turn black.

On fermentation of lactose by few lactose-fermenting normal intestinal flora, acid is produced which is indicated by change of colour from yellow to red by the pH indicator-neutral red.

### Preparation

Suspend 63.02 grams in 1 litre purified /distilled water. Boil with frequent agitation to dissolve the medium completely. DO NOT AUTOCLAVE OR OVERHEAT. Overheating may destroy selectivity of the medium. Cool to about 50°C. Mix and pour into sterile Petri plates

### Storage

Store between 10-30°C in a tightly closed container and the prepared medium at 20-30°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation. Product performance is best if used within stated expiry period.

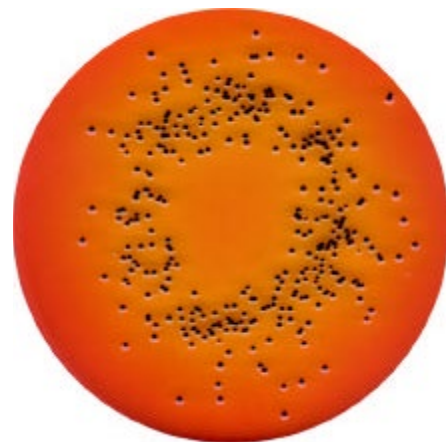
### Specimen

Clinical specimen collection, handling and processing, see general instructions of use.

Food and dairy samples follow appropriate techniques for sample collection and processing as per guidelines

### Experimental Procedure and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature. Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.



## Quality Control

Organism	Inoculum	Growth	Colour of colony
Klebsiella aerogenes ATCC 13048	50 - 100	Fair	cream pink
Escherichia coli ATCC 25922	50 - 100	Fair	pink with bile ppt
Salmonella Choleraesuis ATCC 12011	50 - 100	Good luxuriant	colourless with black centre
Salmonella Typhi ATCC 6539	50 - 100	Good luxuriant	colourless with black centre
Enterococcus faecalis ATCC 29212	50 - 100	None-Poor	colourless
Proteus mirabilis ATCC 25933	50 - 100	Fair-Good	colourless, may have black centre
Shigella flexneri ATCC 12022	50 - 100	Good	colourless
Salmonella Typhimurium ATCC 14028	50 - 100	Good luxuriant	colourless with black centre
Salmonella Enteritidis ATCC 13076	50 - 100	Good luxuriant	colourless with black centre

## Reference

1. The United States Pharmacopoeia, 2006, USP29/NF24, The United States Pharmacopoeial Convention. Rockville, MD. 8. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17<sup>th</sup> Ed., APHA Inc., Washington, D.C.
2. Baird R.B., Eaton A.D., and Rice E.W., (Eds.), 2015, Standard Methods for the Examination of Water and Wastewater, 23rd ed., APHA, Washington, D.C
3. Lennette and others (Eds.), 1985, Manual of Clinical Microbiology, 4th ed., ASM, Washington, D.C
4. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.