

# SALMONELLA SHIGELLA AGAR

**INTENDED USE:**

A differential, selective medium recommended for the isolation of Salmonella and Shigella from stool, foods and clinical material.

**PRINCIPLE AND INTERPRETATION:**

SS Agar was originally developed as a selective medium for the isolation of Salmonella and Shigella species. It was also developed to aid in the differentiation of lactose and non-lactose-fermenters from clinical specimens, suspected foods, and other such samples. Differentiation of enteric organisms is achieved by the incorporation of lactose in the medium. Organisms which ferment lactose produce acid which, in the presence of the neutral red indicator, results in the formation of red colonies. Lactose-nonfermenters form colorless colonies. The latter group contains the majority of the intestinal pathogens, including Salmonella and Shigella.

The sodium thiosulfate and ferric citrate enable the detection of hydrogen sulfide production as evidenced by colonies with black centers.

**COMPOSITION:**

Ingredients	Gr/Liter
`Lab-Lemco' powder	5 gr
Peptone	5 gr
Lactose	10 gr
Bile salts	8,5 gr
Sodium citrate	10 gr
Sodium thiosuphate	8,5 gr
Ferric citrate	1 gr
Brilliant green	0,00033 gr
Neutral red	0,025 gr
Agar	15 gr

\*\*\*Formula adjusted, standardized to suit performance parameters

pH: 7.0 ± 0.2

**PRECAUTIONS:**

For professional use only. Do not use plates if they show evidence of microbial contamination, discoloration, drying, cracking or other signs of deterioration.

**TEST PROCEDURE:**

Allow the plates to warm to room temperature and the agar surface to dry before inoculating. Heavily inoculate and streak the specimen as soon as possible after collection. If the specimen to be cultured is on a swab, roll the swab over a small area of the agar surface. Streak for isolation with a sterile loop. Incubate plates aerobically at 35±2 °C for 18-24 hours. Examine colonial morphology.

**QUALITY CONTROL:****1.Sterility Control:**

Incubation 48 hours at 30-35°C and 72 hours at 20-25°C: NO GROWTH

**2.Physical/Chemical Control**

pH: 7,0 ± 0,2

Apperance: Red-orange

**3.Microbiological Control:** Cultural response on SS Agar at 35± 2 °C after 18-24 hours incubation.

Microorganism	Inoculum (CFU)	Results	
		Growth	Reaction
Salmonella typhimurium ATCC 14028	10-100	Good	Good
Enterococcus faecalis ATCC 29212	100-1000	Partial Inhibition	Inhibition
E.coli ATCC 25922	100-1000	Partial Inhibition	Inhibition

## LIMITATIONS OF THE PROCEDURE:

The incorporation of brilliant green into this medium makes it highly selective, and has been shown to inhibit the growth of some *Shigella* species. Thus, a nonselective but differential medium such as MacConkey Agar should also be streaked to increase the recovery of fastidious, or low numbers of, gram-negative organisms.

## STORAGE CONDITIONS AND SHELF LIFE:

Store the prepared medium at 2- 12°C. Use before expiry date on the label. Do not use beyond stated expiry date.

## DISPOSAL:

Incubated prepared medium may contain active bacteria and micro-organisms. Do not open infected medium. Infected plate should be autoclaved, incinerated or opened and soaked in a chlorine-based disinfectant (liquid bleach) for 20 minutes prior to disposal.

## PACKAGING:

**Katalog Number:** 02045

**Packaging:** Single wrap

**Content:** 10 plates/each package

## REFERENCES:

1. Leifson, E. 1935. New culture media based on sodium desoxycholate for the isolation of intestinal pathogens and for the enumeration of colon bacilli in milk and water. *J. Pathol. and Bacteriol.* 40:581-599.
2. National Committee for Clinical Laboratory Standards. 2001. Approved Guideline M29-A2. Protection of laboratory workers from occupationally acquired infections, 2nd ed. NCCLS, Wayne, PA
3. Isenberg, H.D. *Clinical Microbiology Procedures Handbook*, Vol. I, II & III. American Society for Microbiology, Washington, D.C.
4. MacFaddin, J.F. 1985. *Media for Isolation, Cultivation, Identification, Maintenance of Bacteria*, Vol. I. Williams & Wilkins, Baltimore, MD.



Aseptic Sterile



Batch Code



Catalogue Number



Negative Controls



Positive Controls



Use by



Temperature  
Limitation



Do not reuse



Contains sufficient  
for <n> tests



Look at user manual



Manufacturer