

Salmonella Shigella Agar(SS)

Catalog : HB4089-3-500

Salmonella Shigella Agar is a moderately selective and differential media for the isolation of pathogenic enteric bacilli, especially those belonging to the genus Salmonella. This formulation is not recommended for the primary isolation of Shigella.

Approximate Formula(gm/liter):

Beef Extract	5.0	Sodium Thiosulfate	8.5
Proteose	5.0	Ferric Citrate	1.0
Lactose	10.0	Neutral Red	0.025
Bile Salt No.3	8.5	Brilliant Green	0.00033
Sodium Citrate	8.5	Agar	17.0
Final pH 7.0±0.2 at 25°C			

*Adjusted and/or supplemented as required to meet performance criteria.

Directions:

Suspend 63.53 g of the medium in one liter of distilled water or deionized water. Mix well and heat with frequent agitation and boil for 1 minute to completely dissolve the powder. DO NOT AUTOCLAVE. Cool the medium to approximately 45-50°C and pour into Petri dishes. Allow the plates to dry for approximately 2 hours with the covers partially removed.

Principle and Interpretation:

SS Agar is designated as moderately selective media based upon the degree of inhibition of gram-positive microorganisms that they inhibit due to their content of bile salts, brilliant green and citrates. Differentiation of enteric organisms is achieved by the incorporation of lactose in the medium. Organisms that 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.

Appearance:

Dehydrated medium is a free-flowing light red powder. The prepared medium is a kind of red transparent gel.

Precautions:

This medium is for laboratory use only. Dried medium which is caking or color variation cannot be used.

Storage conditions and Shelf life:

SS Agar must be stored tightly capped in the original container at 5-30°C. The dehydrated medium has a shelf life of 5 years from date of manufacturing. Prepared medium may be stored, out of direct light at 2-8°C.

Quality control:

Prepare the culture medium as per label directions. Inoculate and incubate at 36±1°C for 18-24 hours.

Microorganism	Strains Number	Inoculum (CFU)	Growth	Recovery	Colour of colony
<i>Salmonella enteritidis</i>	CMCC(B) 50760	10-100	luxuriant	≥50%	colourless with black center
<i>Shigella flexneri</i>	ATCC 12022	10-100	luxuriant	30%-40%	colourless
<i>Salmonella typhimurium</i>	ATCC 14028	10-100	luxuriant	≥50%	colourless with black center
<i>Escherichia coli</i>	ATCC 25922	10-100	poor-fair	20%-30%	pink with bile precipitate
<i>Staphylococcus Aureus</i>	ATCC 6538	10-100	inhibited	0%	/

References:

1. Leifson. 1935. J. Pathol. Bacteriol. 40:581.
2. Taylor and Harris. 1965. Am. J. Clin. Pathol. 44:476.
3. Pollock and Dahlgren. 1974. Appl. Microbiol. 27:197.