

# Salmonella Shigella (SS) Agar

Cat No: **111007**

## Intended Use

Salmonella Shigella (SS) Agar is a selective and differential medium used for the isolation and differentiation of *Salmonella* and *Shigella* species from clinical, food, and environmental samples. *Salmonella* typically forms colorless colonies with or without black centers, while *Shigella* appears as colorless colonies without H<sub>2</sub>S. SS Agar is commonly used in clinical and food microbiology for the detection of these important enteric pathogens.

## Principle

Beef extract and peptone supply essential nutrients, including nitrogen, vitamins, minerals, and amino acids required for microbial growth. Lactose serves as a fermentable carbohydrate, providing a source of carbon and energy. The combination of bile salts, sodium citrate, and brilliant green acts as selective agents, suppressing the growth of Gram-positive organisms, most coliforms, and swarming *Proteus* species, while permitting the growth of *Salmonella* species. Neutral red functions as a pH indicator, changing color in response to acid production. Sodium thiosulfate and ferric citrate are included to detect hydrogen sulfide (H<sub>2</sub>S) production, indicated by the formation of black precipitates in H<sub>2</sub>S-producing colonies.

## Storage

Recommended storage conditions: 2 to 8 °C. Store in cool dry place  
Recommended shipping conditions: 2 to 8 °C.

## Production Standard

The formulation is prepared according to the recommendations of the current European, United States, and China Pharmacopoeia.

## Precautions

1. The product may secrete water when exposed to temperature changes between low and room temperature, which is normal. Allow it to reach room temperature before use and, if possible, pre-dry it in a sterile drying oven.
2. Handle the plates with sterile gloves to prevent contamination during use.
3. Store the plates in a cool, dry place away from direct sunlight to maintain their integrity.
4. Avoid opening the plates until they are ready to be used in the sampling area to prevent airborne contamination.
5. Ensure the plates are used within their expiration date to guarantee accurate results.
6. Dispose of used plates according to biohazard waste protocols to prevent contamination and ensure safety.

## Quality Control

The following were incubated at 33°C for 48 hours. The results are as follows:

Test Strains	Expected Results	Characteristic reaction
<i>Salmonella typhimurium</i> ATCC 14028	Good growth	Colorless with black center colony
<i>Shigella flexneri</i> ATCC 12022	Good growth	Colorless colony
<i>Escherichia coli</i> ATCC 25922	Partial inhibition or complete inhibition	Pink to rose-colored colonies
<i>Enterococcus faecalis</i> ATCC 29212	Inhibition	N/A

## Product Content

Product Content	Cat No.	Size
Salmonella Shigella (SS) Agar	111007	10 plates/bag; 200 plates/case

## Composition

Beef extract	5.0 g
Peptone	5.0 g
Lactose	10.0 g
Ox bile	8.5 g
Sodium citrate	8.5 g
Sodium thiosulfate	8.5 g
Ferric ammonium citrate	1.0 g
Neutral red	0.025g
Brilliant green	0.00033 g
Bacteriological agar	16.0 g
Water	1000ml
Final pH (at 25°C)	7.3 ± 0.2

## Shelf Life

Shelf life: 3 months from date of manufacture

## Packaging

90mm x 10 plates per bag; 200 plates/case

Each plate filled with 20mL ± 2mL

## Disposal

Please adhere to the respective regulations for the disposal of used culture medium (e.g., autoclave for 30 minutes at 121 °C)

## Reference

1. ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.

Specially manufactured for:

Foster Medical Pte Ltd  
76 Pioneer Road, #03-05 Mapletree Pioneer Logistics Hub, Singapore 639577