

Medium used for the isolation and identification of Salmonella spp. and Shigella spp.

• CONTENTS (Liter)

Meat Extract	5.0 g
Yeast Extract	5.0 g
Peptone	5.5 g
Lactose	10.0 g
Sodium Citrate	1.0 g
Sodium Thiosulfate	8.5 g
Ferric Ammonium Citrate	1.5 g
Bile Salts No.3	1.5 g
Brilliant Green	0.00033 g
Neutral Red	0.025 g
Agar	14.0 g
Final pH = 7.0 \pm 0.2 at 25°C	

PROCEDURE

Suspend 52.03 G of powder in 1 L of distilled or deionized water. Heat to boiling until completely dissolved. DO NOT AUTOCLAVE. Cool to 45 - 50°C in water bath. Mix well. Pour into petri dishes.

INTERPRETATION

SS (Salmonella Shigella) Agar Modified is a medium used for the isolation and identification of Salmonella spp. and Shigella spp. Meat extract, yeast extract and peptone provide carbon, nitrogen, vitamins and minerals. Lactose is a carbohydrate. Sodium citrate, sodium thiosulfate, bile salt No.3 and brilliant green are the selective agents to inhibit Gram-positive organisms. Sodium thiosulfate and ferric ammonium citrate detect hydrogen sulfide production. Neutral red is a pH indicator. Agar is the solidifying agent.

TECHNIC

Inoculate the specimen using a sterile loop to the medium. Incubate at 35 - 37°C for 18 - 24 hours. Refer appropriate references for recommended test procedure.

QUALITY CONTROL FOR USE

<u>Dehydrated medium</u> Appearance: free-flowing, homogeneous Color: pinkish beige <u>Prepared medium</u> Appearance: slightly opalescent Color: red-orange Incubation conditions: 35 - 37°C / 18 - 24 hours

Microorganism	ATCC	Inoculum CFU	Growth	Characteristics
Salmonella typhimurium	14028	50-100	good	colorless colonies with or without black centers
Shigella flexneri	12022	50-100	good	colorless colonies
Escherichia coli	25922	≥10³	partially inhibited	pink to red colonies
Enterococcus faecalis	29212	≥10³	inhibited	-
Staphylococcus aureus	25923	≥10³	inhibited	-

• STORE

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label. Store prepared medium at 2 - 8°C.

REFERENCES

- 1. Gray L.D. (1995). Escherichia, Salmonella, Shigella and Yersinia, p. 450- 456. In Manual of clinical microbiology, 6th ed. American society of microbiology.
- 2. Leifson E. (1935). J. Pathol. Bacteriol. 40: 581.
- 3. Rose, H.M., and M.H. Kolodny (1942). J. Lab. Clin. Med. 27: 1081-1083.

PACKAGE

Cat. No : MB-S1042 SS (Salmonella Shigella) Agar Modified

500 G

