Iron Sulphite Agar

Medium used for the identification and determination of Clostridium spp.

• CONTENTS (Liter)

Peptone from Casein	15.0 g
Yeast Extract	10.0 g
Sodium Sulfite	0.5 g
Iron Sulfate	0.5 g
Agar	15.0 g

Final pH = 7.1 ± 0.2 at 25°C

• PROCEDURE

Suspend 41.0 G of powder in 1 L of distilled or deionized water. Heat to boiling until completely dissolved. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45 - 50°C in water bath. Mix well. Pour into petri dishes or tubes.

• INTERPRETATION

Iron Sulphite Agar is a medium used for the identification and determination of Clostridium spp. Peptone from casein and yeast extract provide nitrogen, amino acids, and vitamins. The H_2S-positive bacteria reduce the sulfite in the culture medium to sulfide, which reacts with iron. Due to this reaction, black colonies are formed in this medium. Agar is the solidifying agent.

• TECHNIC

Inoculate the specimen using a sterile loop to the medium. Incubate at 35 ± 2°C for 2 days under anaerobic condition. When using vented petri dishes, the medium needs over-layer and anaerobic incubation to get black colonies. Alternative in tubes. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium
Appearance: free-flowing, homogeneous
Color: beige
Prepared medium
Appearance: clear
Color: light amber
Incubation conditions: 35 ± 2°C / 2 days under anaerobic condition

Microorganism	ATCC	Growth	Characteristics
Clostridium perfringens	13124	good	black colonies
Clostridium sporogens	19404	good	black colonies
Escherichia coli	25922	good	-

• 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. Mossel, D.A.A., Golstein Brouwers G.W.M.V. and De Bruin A.S. (1959). J. Path. Bact. 78: 290-291.
2. Tanner, F.W. (1944). The microbiology of foods, 2nd ed, p. 1127.

• PACKAGE

Cat. No : MB-I1401 Iron Sulphite Agar	500 G