

SIM Semi-Solid



Medium used for the identification and determination of enteric bacteria on the basis of hydrogen sulfide production, indole production and motility.

• CONTENTS (Liter)

Peptone	6.1 g
Tryptone	20.0 g
Ferrous Ammonium Sulfate	0.2 g
Sodium Thiosulfate	0.2 g
Agar	3.5 g
Final pH = 7.3 ± 0.2 at 25°C	

• PROCEDURE

Suspend 30.0 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 tubes.

• INTERPRETATION

SIM Semi-Solid is a medium used for the identification and determination of enteric bacteria on the basis of hydrogen sulfide production, indole production and motility. Peptone and tryptone provide carbon, nitrogen, vitamins, amino acids and essential nutrients. Ferrous ammonium sulfate and sodium thiosulfate are used to detect hydrogen sulfide production. Agar is the solidifying agent.

• TECHNIC

Inoculate well isolated colonies from fresh cultures using a sterile loop to the middle of the medium. Incubate at 35 ± 2°C for 18 - 24 hours. After incubation, observe H₂S production and motility. H₂S production and motility must be determined before the addition of Kovac's reagent. H₂S production is detected by blackening. Motility is observed as a diffuse growth outward from the stab line. Indole production is shown by a red coloration after the addition of 4 - 5 drops of Kovac's reagent (MB-9410).

• QUALITY CONTROL FOR USE

Dehydrated medium

Appearance: free-flowing, homogeneous

Color: beige

Prepared medium

Appearance: clear to slightly hazy

Color: light amber

Incubation conditions: 35 ± 2°C / 18 - 24 hours

Microorganism	ATCC	Growth	H ₂ S	Motility	Indole
<i>Escherichia coli</i>	25922	good	-	+	+
<i>Salmonella typhimurium</i>	14028	good	+	+	-
<i>Shigella flexneri</i>	12022	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. Blazevic, D.J. (1968). Appl. Microbiol. 16: 668.
2. Blushman, J.M., and Fulton, M. (1964). J. Bact. 88: 1813.

- **PACKAGE**

Cat. No : MB-S1181 SIM Semi-Solid	500 G
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