

Peptone Iron Agar



Medium used for the identification and determination of hydrogen sulfide production by microorganisms.

• CONTENTS (Liter)

Peptone	15.0 g
Proteose Peptone	5.0 g
Ferric Ammonium Citrate	0.5 g
Sodium Glycerophosphate	1.0 g
Sodium Thiosulfate	0.08 g
Agar	15.0 g
Final pH = 6.7 ± 0.2 at 25°C	

• PROCEDURE

Suspend 36.58 G of powder in 1 L of distilled or deionized water. Heat to boiling until completely dissolved. Sterilized by autoclave at 121°C for 15 minutes. Cool to 45 - 50°C in water bath. Mix well. Pour into tubes.

• INTERPRETATION

Peptone Iron Agar is a medium used for the identification and determination of hydrogen sulfide production by microorganisms. Peptones provide nitrogen, carbon, vitamins and minerals. Ferric ammonium citrate and sodium thiosulfate are used for the determination of H₂S production. Blackening of the medium indicates H₂S production. Sodium glycerophosphate is a buffering agent. Agar is the solidifying agent.

• TECHNIC

Inoculate the specimen using a sterile needle to the middle of the medium. Incubate at 35 ± 2°C for 18 - 48 hours. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium

Appearance: free-flowing, homogeneous

Color: light beige

Prepared medium

Appearance: clear to slightly opalescent

Color: light amber

Incubation conditions: 35 ± 2°C / 18 - 48 hours

Microorganism	ATCC	Growth	H ₂ S production
<i>Escherichia coli</i>	25922	good	-
<i>Proteus vulgaris</i>	13315	good	+
<i>Salmonella enteritidis</i>	NCCP 12236	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. Levine, Vaughn, Epstein and Anderson. 1932. Proc. Soc. Exp. Biol. Med. 29:1022.
2. Levine, Epstein and Vaughn. 1934. Am. J. Public Health 24:505.
3. Tittsler and Sandholzer. 1937. Am. J. Public Health 27:1240.
4. Isenberg (ed.). 1992. Clinical microbiology procedures handbook, vol. 1. American Society for Microbiology, Washington, D.C.
5. Murray, Baron, Pfaller, Tenover and Tenover (ed.). 1999. Manual of clinical microbiology, 7th ed. American Society for Microbiology, Washington, D.C.
6. Downes and Ito (ed.). 2001. Compendium of methods for the microbiological examination of foods, 4th ed. American Public Health Association, Washington, D.C.

• PACKAGE

Cat No : MB-P0692 Peptone Iron Agar	500 G
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