PHENOL RED SUCROSE BROTH TM 259

For determining the ability of microorganisms to ferment sucrose

Composition

Ingredients	Gms/Ltr.
Proteose peptone	10.00
Sodium chloride	5.00
Sucrose	5.00
Beef extract	1.00
Phenol red	0.018

* Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°C and protect from direct Sunlight.

Instructions for Use

Dissolve 21gms in 1000ml distilled water. Gently heat to boiling with gentle swirling and dissolve the medium completely. Dispense into test tubes containing inverted Durham's tubes and sterilize at 15 psi (121°C) for 15 minutes. Cool to room temperature prior inoculation.

Appearance: Red colour, clear solution without ppt.
pH (at 25°C): 7.4 ± 0.2

Principle

PHENOL RED SUCROSE BROTH is used for determining the ability of microorganisms to ferment sucrose. Proteose peptone and Beef extract provides nitrogen, carbon and other essential sources for the growth of organisms. Sucrose is added as the fermentable carbohydrate. Sodium chloride maintains osmotic balance. Phenol red is a pH indicator, which turns to yellow while having acidic pH. After incubation media colour changes to yellow which is a indicator of fermentation reaction, with or without gas formation (Durham's tubes).

Interpretation

Cultural characteristics observed after inoculating (10^3CFU/ml), on incubation at 35 ± 2°C for 18 - 24 hours.

Microorganisms	ATCC	Inoculum (CFU/ml)	Growth	Acid / Gas Production
Escherichia coli	25922	10^3	Good	-/-
Enterobacter aerogenes	13048	10^3	Good	+/+
Proteus vulgaris	6380	10^3	Good	+/+
Salmonella typhimurium	14028	10^3	Good	-/-
Shigella flexneri	12022	10^3	Good	-/-

References

1. Diagnostic Procedures and Reagents 3rd Edition p. 107. (1950.)
2. MacFaddin, J *Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria* Baltimore. (1985).

3. Baron EJ LR Peterson and S.M. Finegold. Bailey & Scott's diagnostic microbiology, 9th edition. Mosby-Year Book, Inc. St. Louis, MO. (1994).
4. Association of Official Analytical Chemists. Official methods of analysis of AOAC Arlington, VA. (1995).
5. Murray, PR., E.J. Baron M.A. Pfaller F.C. Tenover and R.H. Yolken (ed). Manual of clinical microbiology, 6th edition. American Society for Microbiology, Washington DC. (1995) .