

**PHENOL RED LACTOSE AGAR****TM 253**

For determination the ability of fermentation reactions

Composition

Ingredients	Gms/Ltr.
Agar	15.00
Proteose peptone	10.00
Lactose	10.00
Sodium chloride	5.00
Beef extract	1.00
Phenol red	0.025

* 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 41gms 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. Allow to cool the tubes in slanted position, prior to use.

Appearance: Red colour, clear to slightly opalescent solution

pH (at 25°C): 7.4 ± 0.2

Principle

PHENOL RED LACTOSE AGAR is used for determination the ability of fermentation reactions. Proteose peptone and Beef extract provides nitrogen, carbon and other essential sources for the growth of organisms. Lactose 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.

Interpretation

Cultural characteristics observed after inoculating (10^3 CFU / ml), on incubation at $35 \pm 2^\circ\text{C}$ for 18 - 24 hours.

Microorganisms	ATCC	Inoculum (CFU/ml)	Growth	Acid/Gas Production
<i>Escherichia coli</i>	25922	10^3	Luxuriant	+ / +
<i>Klebsiella pneumoniae</i>	13883	10^3	Luxuriant	+ / +
<i>Proteus vulgaris</i>	6380	10^3	Luxuriant	- / -
<i>Salmonella typhimurium</i>	14028	10^3	Luxuriant	- / -
<i>Shigella flexneri</i>	12022	10^3	Luxuriant	- / -

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).

PRODUCT DATA SHEET

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. Tenover (ed). Manual of clinical microbiology, 6th edition. American Society for Microbiology, Washington DC. (1995) .