TM 252 – PHENOL RED AGAR BASE

INTENDED USE
A basal medium by adding carbohydrates for use in fermentation studies of microorganisms.

PRODUCT SUMMARY AND EXPLANATION
Phenol Red Agar media are recommended for studying the fermentation of various carbohydrates individually by the pure cultures of microorganisms.

COMPOSITION

Ingredients	Gms / Ltr
Proteose peptone	10.000
Meat extract B	1.000
Sodium chloride	5.000
Phenol red	0.025
Agar	15.000

PRINCIPLE
The medium consists of Proteose peptone and Meat Extract B which is free from fermentable carbohydrates is added in the medium thereby preventing the production of false positive reactions. Phenol Red Agar when supplemented with a specific carbohydrate, a positive carbohydrate fermentation reaction is indicated by the production of a yellow colour in agar due to the effect of acid production. Gas production is indicated by the splitting of agar or by the bubbles formation.

Plates or tubes may be incubated aerobically or anaerobically depending on the type of the test organism. Addition of some carbohydrates may result in an acid reaction and hence 0.1N sodium hydroxide can be added dropwise to restore the original colour taking care not to obtain too deep red or cerise colour.

INSTRUCTION FOR USE
- Dissolve 31.02 grams in 1000 ml purified/distilled water.
- Add 5-10 grams of carbohydrate as desired.
- Heat to boiling to dissolve the medium completely.
- Dispense in tubes or flasks as desired and sterilize by autoclaving at 15 psi pressure (121° C) for 15 minutes.
- Allow the tubed media to cool in slanted position to form slants with deep butts.
  Note: For critical studies, it is recommended to use filter sterilized carbohydrate which is to be incorporated aseptically in sterile medium base.

QUALITY CONTROL SPECIFICATIONS
Appearance of Powder : Light yellow to pink homogeneous free flowing powder.
Appearance of prepared medium : Red coloured clear to slightly opalescent gel forms in tubes as slants.
pH (at 25°C) : 7.4 ± 0.2

INTERPRETATION
Cultural characteristics observed after incubation.

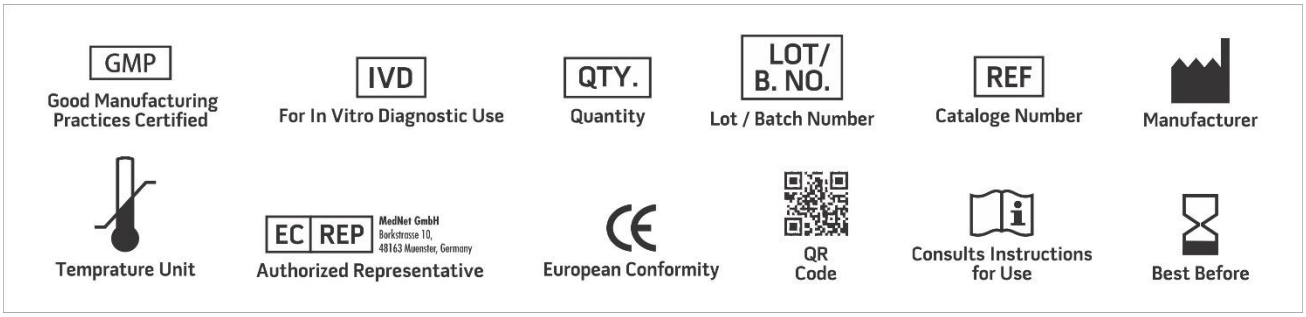
Microorganism	ATCC	Inoculum (CFU /ml)	Growth	without carbohydrate, (Acid)	without carbohydrate, (Gas)	with dextrose, (Acid)	with dextrose, (Gas)	Incubation Temperature	Incubation Period
Alcaligenes faecalis	8750	50-100	Luxuriant	Negative reaction, no colour change	Negative reaction	Negative reaction, no colour change	Negative reaction	35-37°C	18-24 Hours
Escherichia coli	25922	50-100	Luxuriant	Negative reaction, no colour change	Negative reaction	Positive reaction, yellow colour	Positive reaction	35-37°C	18-24 Hours
Klebsiella pneumoniae	13883	50-100	Luxuriant	Negative reaction, no colour change	Negative reaction	Positive reaction, yellow colour	Positive reaction	35-37°C	18-24 Hours
Proteus vulgaris	13315	50-100	Luxuriant	Negative reaction, no colour change	Negative reaction	Positive reaction, yellow colour	Positive reaction	35-37°C	18-24 Hours
Salmonella Typhimurium	14028	50-100	Luxuriant	Negative reaction, no colour change	Negative reaction	Positive reaction, yellow colour	Positive reaction	35-37°C	18-24 Hours
Shigella flexneri	12022	50-100	Luxuriant	Negative reaction, no colour change	Negative reaction	Positive reaction, yellow colour	Negative reaction	35-37°C	18-24 Hours

PACKAGING:
In pack size of 100 gm and 500 gm bottles.

STORAGE
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL
After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES
1. Finegold and Baron, 1986, Bailey and Scotts Diagnostic Microbiology, 7th ed., The C.V. Mosby Co., St. Louis.
2. Ewing, 1986, Edwards and Ewings Identification of Enterobacteriaceae, 4th ed., Elsevier Science Publishing Co., Inc., New York.
3. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
4. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1
5. MacFaddin J., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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