TM 821 – PHENOL RED SALICIN BROTH

INTENDED USE
For determining the ability of microorganisms to ferment salicin.

PRODUCT SUMMARY AND EXPLANATION
Phenol Red Broth Medium is formulated as per Vera and is recommended to determine the fermentation reaction of carbohydrates for the differentiation of microorganisms. Phenol Red Broth Medium with various carbohydrates serves as a differential medium by aiding in differentiation of various species and genera by their ability to ferment the specific carbohydrate, with the production of acid or acid and gas. Phenol Red Salicin Broth is used to study salicin fermentation in various bacteria.

COMPOSITION

Ingredients	Gms / Ltr
Proteose peptone	10.000
Beef extract	1.000
Sodium chloride	5.000
Salicin	5.000
Phenol red	0.018

PRINCIPLE
The medium consists of Proteose peptone and beef extract which serve as sources for carbon and nitrogen. Sodium chloride is the osmotic stabilizer. Phenol red is the pH indicator, which turns yellow at acidic pH i.e. on fermentation of salicin. Gas formation is seen in Durhams tubes. All of the *Enterobacteriaceae* grow well in this medium. In addition to producing a pH colour shift, the production of mixed acids, notably butyric acids, often results in a pungent, foul odour from the culture medium.

INSTRUCTION FOR USE
- Dissolve 21.0 grams in 1000 ml purified/distilled water.
- Heat if necessary to ensure complete solution.
- Distribute in fermentation tubes (tubes containing inverted Durham's tubes). Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

QUALITY CONTROL SPECIFICATIONS
Appearance of Powder : Light yellow to pink coloured homogeneous free flowing powder.
Appearance of prepared medium : Red coloured clear solution without any precipitate.
pH (at 25°C) : 7.4 ± 0.2

INTERPRETATION
Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Acid	Gas	Incubation Temperature	Incubation Period
Citrobacter freundii	8090	50-100	Luxuriant	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	35 - 37°C	18 - 24 Hours
Enterobacter aerogenes	13048	50-100	Luxuriant	Positive reaction, yellow colour	Positive reaction	35 - 37°C	18 - 24 Hours
Klebsiella pneumoniae	13883	50-100	Luxuriant	Positive reaction, yellow colour	Positive reaction	35 - 37°C	18 - 24 Hours
Proteus vulgaris	13315	50-100	Luxuriant	Positive reaction, yellow colour	Positive reaction	35 - 37°C	18 - 24 Hours
Salmonella Typhi	6539	50-100	Luxuriant	Negative reaction, no colour change	Negative reaction	35 - 37°C	18 - 24 Hours
Salmonella Typhimurium	14028	50-100	Luxuriant	Negative reaction, no colour change	Negative reaction	35 - 37°C	18 - 24 Hours
Serratia marcescens	8100	50-100	Luxuriant	Positive reaction, yellow colour	Weak reaction	35 - 37°C	18 - 24 Hours
Shigella flexneri	12022	50-100	Luxuriant	Negative reaction, no colour change	Negative reaction	35 - 37°C	18 - 24 Hours

PACKAGING:
In pack size of 100 gm bottles.

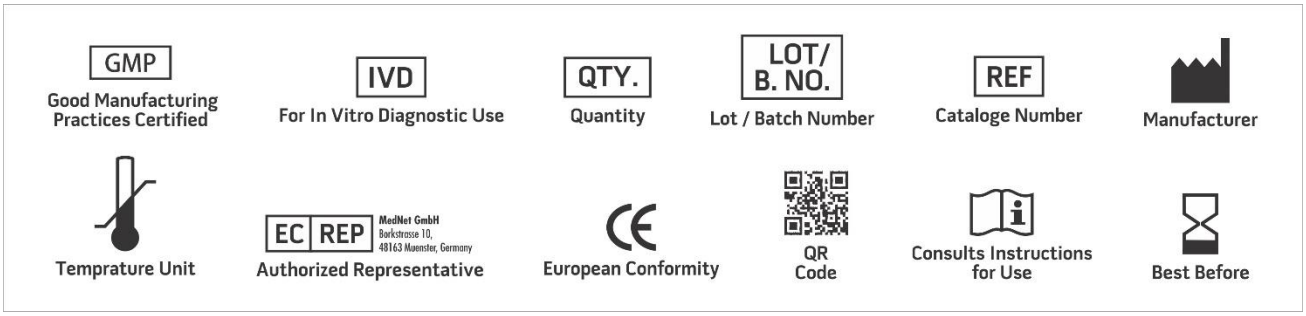
STORAGE
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label 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. Koneman E. W., Allen S. D., Janda W.M., Schreckenberger P.C., Winn W.C. Jr., 1992, Colour Atlas and Textbook of Diagnostic Microbiology, 4th Ed., J. B. Lippinccott Company
2. Vera H. D., 1950, Am. J. Public Health, 40, 1267
3. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification -Maintenanceof Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.
4. Finegold S. M. and Baron E. J., 1986, Bailey and Scotts Diagnostic Microbiology, 7th Ed., The C.V. Mosby Co., St. Louis.
5. Ewing W. H., 1986, Edwards and Ewings Identification of Enterobacteriaceae, 4th ed.,Elsevier Science Publishing Co., Inc., New York.
6. MacFaddin J. F., 2000, Biochemical tests for Identification of Medical Bacteria, 3rd edi., Lippincott, 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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