

Technical Information

Phenol Red Broth Base w/ MiVeg Extract No. 1

Product Code :VM1279

Application:- Phenol Red Broth Base w/ MiVeg Extract No. 1 is a basal medium to which carbohydrate of choice is added for determination of fermentation reactions of pure cultures of microorganisms.

Composition**

Ingredients	Gms / Litre
MiVeg hydrolysate	10.0
MiVeg extract No. 1	1.0
Sodium chloride	5.0
Phenol red	0.018
Final pH (at 25°C)	7.4 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Phenol Red Broth Base w/MiVeg extract no.1 is a complete medium without added carbohydrates. The desired carbohydrate can be added for determination of fermentation reactions of pure cultures of microorganisms (1, 2). It can also be used as a negative control to study fermentation reactions. Ability of an organism to ferment specific carbohydrate i.e., incorporated in the basal medium, results in the production of acid and gas which in turn helps to differentiate among genera and species.

MiVeg hydrolysate and MiVeg extract no.1 supply nitrogenous nutrients to the organisms. Phenol red is the pH indicator that turns yellow at acidic pH. Sodium chloride maintains osmotic equilibrium of the medium.

Methodology

Suspend 16 grams of powder media in 1000 ml distilled water. Add the carbohydrate under testing in desired quantity.. Mix well and distribute in fermentation tubes. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Quality Control

Physical Appearance

Light pink coloured, homogeneous, free flowing powder.

Colour and Clarity of prepared medium

Red coloured clear solution without any haziness.

Reaction

Reaction of 1.6% w/v aqueous solution is pH 7.4 ± 0.2 at 25°C.

pH Range

7.2-7.6

Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35-37°C for for 18-24 hours.

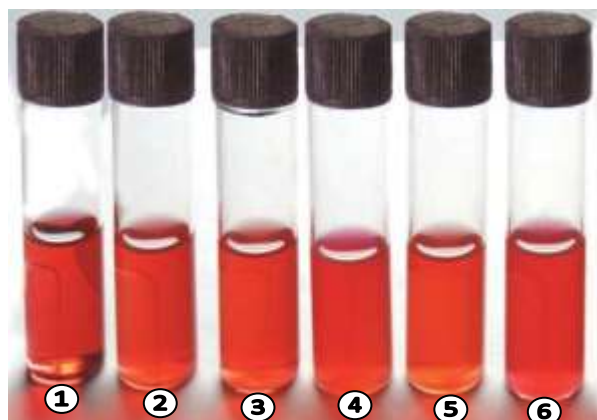
Organisms (ATCC)	Inoculum (CFU)	Growth	Acid	Gas
<i>Escherichia coli</i> (25922)	10 ² -10 ³	Luxuriant	-	-
<i>Klebsiella pneumoniae</i> (13883)	10 ² -10 ³	Luxuriant	-	-
<i>Proteus vulgaris</i> (13315)	10 ² -10 ³	Luxuriant	-	-
<i>Salmonella</i> serotype Typhimurium (14028)	10 ² -10 ³	Luxuriant	-	-
<i>Shigella flexneri</i> (12022)	10 ² -10 ³	Luxuriant	-	-

Key : - = No colour change (red) / no gas formation

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

Prepared Media: 2-8° in sealable plastic bags for 2-5 day.



VM 1279 Phenol Red Broth Base w/ MiVeg Extract No. 1 (w/o Carbohydrate)

- | | |
|---------------------------------|---|
| 1. Control | 4. <i>Proteus vulgaris</i> |
| 2. <i>Escherichia coli</i> | 5. <i>Salmonella</i> serotype Typhimurium |
| 3. <i>Klebsiella pneumoniae</i> | 6. <i>Shigella flexneri</i> |

Further Reading

- MacFaddin J., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. 1, Williams and Wilkins, Baltimore.
- Finegold and Barou, 1986, Bailey and Scott's Diagnostic Microbiology, 7th ed., The C.V. Mosby Co., St. Louis.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate.
- Central Drug House Pvt. Ltd.** reserves the right to make changes to specifications and information related to the products at any time.
- Products are not intended for human or animal diagnostic or therapeutic use but for laboratory, research or further manufacturing of diagnostic reagents extra.
- Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents. Do not use the products if it fails to meet specifications for identity and performance parameters.