

Phenol Red Broth Base w/ HiVeg™ Extract No. 1

MV279

Phenol Red Broth Base w/ HiVeg 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	Grams/Litre
HiVeg hydrolysate	10.0
HiVeg 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.

Directions :

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

Principle and Interpretation :

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

HiVeg hydrolysate and HiVeg extract no.1 provide nitrogenous nutrients to the organisms. Phenol red is the pH indicator which turns yellow at acidic pH. Sodium chloride maintains osmotic equilibrium.

Quality Control :

Appearance of powder

Light pink coloured, homogeneous, free flowing powder.

Colour and Clarity

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.

Cultural Response

Cultural characteristics observed after on incubation at 35-37°C for 18-24hrs.

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	-	-

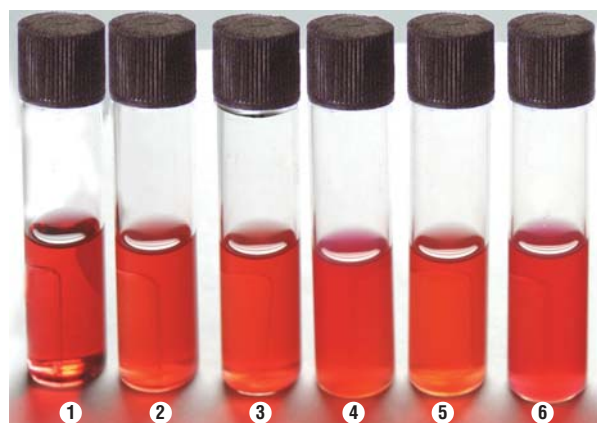
Key : - = No colour change (red) / no gas formation

Product Profile :

Vegetable based (Code MV)☉	Animal based (Code M)
MV279 HiVeg hydrolysate HiVeg extract No. 1	M279 Casein enzymic hydrolysate Meat extract
Recommended for	Determination of fermentation reactions of pure cultures of microorganisms.
Reconstitution	16.0 g/l
Quantity on preparation (500g)	31.25 L
pH (25°C)	7.4 ± 0.2
Supplement	Carbohydrate
Sterilization	121°C / 15 minutes.
Storage	Dry Medium - Below 30°C, Prepared Medium 2 - 8°C.

References :

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



MV279 Phenol Red Broth Base w/ HiVeg Extract No. 1 (w/o Carbohydrate)

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| 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> |