

PHENOL RED BROTH BASE

Medium for carbohydrates fermentation studies.

TYPICAL FORMULA (g/l)

Beef Extract	3.0
Sodium Chloride	5.0
Peptone	10.0
Phenol Red	0.018

Final pH = 7.4 ± 0.2 at 25 °C.

DIRECTIONS

Suspend 18.0 g of powder in 1 liter of distilled or deionized water. Heat until completely dissolved.
Dispense into final containers provided with Durham tubes. Sterilize in autoclave at 121°C for 15 minutes.
Cool to approximately 45-50 °C and aseptically add a solution of appropriate carbohydrate sterilized by filtration at a final concentration of 1-2%.

DESCRIPTION

PHENOL RED BROTH BASE is a basal medium used with added carbohydrates in differentiating pure cultures of bacteria based on fermentation reactions.

TECHNIQUE

Inoculate tubes with one drop of a diluted pure culture. Incubate at 36 ± 1°C for 18-48 hours with caps loosened.
Examine tubes for growth, acid production and gas production: a yellow color of the medium indicates a positive reaction for carbohydrate fermentation; bubbles in the inverted vials are an indication of gas production.

QUALITY CONTROL

Dehydrated medium

Appearance: free-flowing, homogeneous.
Color: pink.

Prepared medium

Appearance: clear.
Color: orange red to red.
Incubation conditions: 36 ± 1°C for 18-48 hours.

Microorganism	ATCC	Growth
<i>Escherichia coli</i>	25922	good
<i>Klebsiella pneumoniae</i>	13883	good
<i>Enterococcus faecalis</i>	19433	good

PERFORMANCE AND LIMITATIONS

The addition of some carbohydrates to the basal medium may result in an acid reaction. In this case it is suggested that 0.1 N sodium hydroxide be added drop by drop to restore the original color. Take care not to make the medium too alkaline for true fermentation to occur within the usual incubation period.
To ensure accuracy of interpretation, uninoculated control tubes and/or inoculated Phenol Red Broth Base control tubes should be run in parallel with the fermentation test.

STORAGE

The powder is very hygroscopic: store the powder at 10-30 °C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident.
Store prepared tubes at 2-8 °C.



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REFERENCES

1. Baron, E.J., L.R. Peterson, and S.M. Finegold. 1994. Bailey ^ scott-s diagnostic microbiology, 9th ed.
2. Murray, P.R., E.J. Baron, M.A. Pfaller, F.C. Tenover, and R.H. Tenover. 1995. Manual of clinical microbiology, 6th ed.
3. Holt, G.J., N.R. Krieg, P.H.A. Sneath, J.T. Staley, and S.T. Williams. 1994. Bergey-s manual of determinative bacteriology, 9th ed.

PRESENTATION

Product	REF	Σ
PHENOL RED BROTH BASE (27.7 l)	610174	500 g
PHENOL RED BROTH BASE (5.5 l)	620174	100 g

TABLE OF SYMBOLS

LOT Batch code	 Caution, consult accompanying documents	 Manufacturer	 Contains sufficient for <n> tests	IVD <i>In Vitro</i> Diagnostic Medical Device
REF Catalogue number	 Fragile, handle with care	 Use by	 Temperature limitation	 Keep away from heat source



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