

PHENOL RED AGAR

Medium for differentiating bacteria on the basis of fermentation reactions.

TYPICAL FORMULA (g/L)

Tryptone	10.0
Sodium Chloride	5.0
Phenol Red	18.0 mg
Agar	15.0
Final pH = 7.4 ± 0.2 at 25°C	

DESCRIPTION

PHENOL RED AGAR with added carbohydrate is well suited for the study of fermentation reactions of microorganisms.

PRINCIPLE

Peptone provides the carbon and nitrogen required for good growth of a wide variety of organisms. Sodium chloride maintains the osmotic balance of the medium. Agar is the solidifying agent. Phenol red serves as a pH indicator, turning from red-orange to yellow when acid is produced during fermentation of the carbohydrate; if the carbohydrate is not fermented, the medium remains red or becomes alkaline (darker red).

PREPARATION

1. Suspend 30 g of the powder in 1 L of purified water. Heat with frequent agitation to completely dissolve the powder.
2. Autoclave at 121°C for 15 minutes. Aseptically add carbohydrate, 5-10 g per L, if desired. Mix thoroughly.
3. Dispense into final tubes and allow to solidify in a slant position.

TECHNIQUE

1. Inoculate the medium by stabbing into the butt and streaking the surface of the slant. If desired, inoculate obligate anaerobic bacteria into melted medium that has been cooled to 45°C. Allow the agar to solidify prior to incubation.
2. Incubate at 36 ± 1°C for 4-48 hours (or anaerobically for 24-72 hours).
3. Examine periodically for growth, acid production and gas formation.

INTERPRETATION OF RESULTS

Fermentation of the carbohydrate is indicated by a change in the color of the medium from red to canary yellow. Gas formation is indicated by the collection of gas bubbles in the base or by splitting of the agar. For expected reactions with organisms on **PHENOL RED AGAR** supplemented with various carbohydrates, refer to appropriate references.

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 media at 2-8°C.

WARNING and PRECAUTIONS

The product is not classified as hazardous by current legislation and does not contain harmful substances in concentrations of ≥1%. It is nevertheless recommended that the Safety Data Sheet be consulted on its correct use. The product is designed for *In vitro* diagnostic use and must be used only by properly trained operators.

DISPOSAL of WASTE

Disposal of waste must be carried out according to national and local regulations in force.

REFERENCES

1. Forbes, Sahn and Weissfeld. 1998. Bailey & Scott's diagnostic microbiology, 10th edition. Mosby, Inc., St. Louis, Mo.
2. Murray, Baron, Pfaller, Tenover and Tenover. (ed.). 1999. Manual of clinical microbiology, 7th edition. American Society for Microbiology, Washington, D.C.



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PRODUCT SPECIFICATIONS

NAME
PHENOL RED AGAR

PRESENTATION
Dehydrated culture medium

STORAGE
10-30°C

PACKAGING

Code	Content	Packaging
610308	500 g	500 g of powder in plastic bottle

pH OF THE MEDIUM
7.4 ± 0.2

USE
PHENOL RED AGAR with added carbohydrate is well suited for the study of fermentation reactions of microorganisms.

TECHNIQUE
Refer to technical sheet of the product.











APPEARANCE of the MEDIUM
Dehydrated medium
Appearance: free-flowing, homogeneous.
Colour: pink.
Prepared medium
Appearance: opalescent.
Colour: red to orange-red.

SHELF LIFE
4 years

- QUALITY CONTROL**
- Control of general characteristics, label and print
 - Sterility control
7 days at 25 ± 1°C, in aerobiosis
7 days at 36 ± 1°C, in aerobiosis
 - Microbiological control
Inoculum for productivity: 10-100 UFC/ml
Inoculum for selectivity: 10⁴-10⁵ UFC/ml
Inoculum for specificity: ≤ 10⁴ UFC/ml
Incubation conditions: 36 ± 1°C for 4-48 hours

Microorganism	ATCC	Growth	Color	Gas
<i>Escherichia coli</i>	25922	good	yellow	+
<i>Escherichia aerogenes</i>	13048	good	yellow	-
<i>Proteus mirabilis</i>	25933	good	red	-
<i>Staphylococcus aureus</i>	25923	good	yellow	+

TABLE OF SYMBOLS

 IVD In Vitro Diagnostic Medical Device	 Do not reuse	 Manufacturer	 Contains sufficient for <n> tests	 Temperature limitation
 REF Catalogue number	 Fragile, handle with care	 Use by	 Caution, consult accompanying documents	 LOT Batch code



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