

# Phenol Red Sucrose Broth

For sucrose fermentation studies

## Formula in grams per liter:

Casein Peptone  
Sodium Chloride

10,00 | Sucrose  
5,00 | Phenol Red

5,00  
0,018

Final pH: 7,4 ± 0,2 at 25 °C

## Preparation:

Dissolve 20 grams of the medium in one liter of distilled water. If the medium is for the cultivation of anaerobes, add 0,5-1 grams of agar. Mix well. Heat with frequent agitation to dissolve the medium completely. Dispense in 5 ml amounts into test tubes with gas collecting tube (Durham). Sterilize at 116-118°C (12 lbs sp) for 15 minutes. **DO NOT OVERHEAT.**

## Uses:

This medium is the same to Phenol Red Broth Base having added Sucrose for fermentation studies.

A basal medium for determining the fermentation reactions of microorganisms must be capable of supporting growth of test organisms and be free from fermentable carbohydrates. Vera used a fermentation test medium employing the pH indicator phenol red and obtained highly accurate results.

Phenol Red Broth Base is used for carbohydrate fermentation studies of many microorganisms. Control tubes of uninoculated medium should be run in parallel with inoculated tubes. Tubes should be examined frequently because different carbohydrates are utilized at variable speeds. The appearance of a yellow color is the indication of fermentation, with or without gas formation.

A positive test is indicated by a color change from red to yellow, with or without gas production.

For anaerobes the medium should be used on the day of preparation or the medium must be heated and cooled before use.

## Microbiological Tests:

Microorganisms	Sucrose	
	Acid	Gas
<i>Escherichia coli</i> ATCC 25922	-	-
<i>Proteus vulgaris</i> ATCC 6380	+	+
<i>Salmonella typhimurium</i> ATCC 14028	-	-

