

CM 21402 – PHENYLETHYL BLOOD AGAR BASE (ANAEROBIC)

INTENDED USE

For cultivation of fastidious anaerobic bacteria.

PRODUCT SUMMARY AND EXPLANATION

Phenylethyl alcohol is a chemical agent that exhibits inhibitory action against gram-negative and certain gram-positive bacteria. Phenylethyl Blood Agar Base (Anaerobic) is used for the isolation of obligate anaerobic gram-positive and gram-negative bacteria. Supplementation of medium with L-cystine permits growth of certain thiol-dependent or sulphur containing amino acids- requiring bacteria and fastidious Streptococci. This medium inhibits facultative anaerobic gram-negative bacteria such as E. coli and Proteus species.

COMPOSITION

Ingredients	Gms / Ltr
Tryptone	15.000
Soya peptone	5.000
Yeast extract	5.000
Sodium chloride	5.000
Phenylethyl alcohol	2.500
L-Cystine	0.400
Vitamin K1	0.010
Hemin	0.005
Agar	20.000

PRINCIPLE

The medium consists of Tryptone and Soya peptone which provide nitrogen, carbon, sulfur and trace elements to the growing organisms. Addition of sheep blood provides many growth factors. Sodium chloride maintains osmotic equilibrium. Addition of phenylethanol to a nutritive medium permits the growth of gram-positive organisms but inhibits the gram-negative organisms found in the same specimen. Phenylethyl alcohol exerts inhibitory bacteriostatic action on gram-negative bacteria by inhibiting their DNA synthesis. Addition of hemin, vitamin K1 and L-cystine makes the medium more nutritious and suitable for the growth of fastidious anaerobic bacteria.

INSTRUCTION FOR USE

- Dissolve 52.92 grams in 950 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 45-50°C.
- Aseptically add sterile 50 ml defibrinated sheep or rabbit blood.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS



Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Basal medium: Light amber coloured clear to slightly opalescent gel. After addition of 5%w/v sterile defibrinated blood : Cherry red coloured opaque gel forms in Petri plates.
pH (at 25°C)	: 7.5 ± 0.2

INTERPRETATION

Cultural characteristics observed with added 5% v/v sterile defibrinated blood after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Bacteroides fragilis	25285	50-100	Good-luxuriant	≥50%	35-37°C	48-72 Hours
Clostridium perfringens	13124	50-100	Good-luxuriant	≥50%	35-37°C	48-72 Hours
Clostridium butyricum	9690	50-100	Good-luxuriant	≥50%	35-37°C	48-72 Hours
Clostridium sporogenes	11437	50-100	Good-luxuriant	≥50%	35-37°C	48-72 Hours
Proteus mirabilis	25933	50-100	Fair-good	20-40%	35-37°C	48-72 Hours
Staphylococcus aureus subsp. aureus	25923	50-100	Fair-good	20-40%	35-37°C	48-72 Hours

PACKAGING:

In pack size of 100 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 2-8°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

