Anaerobic Blood Agar Base

M975A

Anaerobic Blood Agar Base is recommended for cultivation of anaerobic microorgansisms, including very fastidious organisms from clinical specimens.

Composition**

Ingredients	Gms / Litre
Casein enzymic hydrolysate	15.000
Papaic digest of soyabean meal	5.000
Yeast extract	5.000
Sodium chloride	5.000
L-Cysteine	0.500
Hemin	0.005
Agar	13.500
Final pH (at 25°C)	7.4±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 44.0 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Add the rehydrated contents of 1 vial of Vitamin K1 solution (FD114). Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45 50°C. Aseptically add 5% v/v sterile defibrinated sheep blood. Mix well and pour into sterile petri plates.

Principle And Interpretation

Anaerobic Blood Agar base serves as a nutritious, nonselective medium allowing the cultivation of not only fastidious anaerobes but also of aerobic and microaerophillic microorganisms (1). It promotes both typical pigment formation in *Bacteroides melaningenicus* and displays double haemolytic reaction in *Clostridium perfringens* with added blood to the medium base. The inner zone of haemolysis is due to toxin and the outer zone of incomplete haemolysis to toxin (lecithinase activity).

Casein peptone , papaic digest of soyabean meal and yeast extract in the medium provides carbon and nitrogenous compounds. Presence of Haemin and Vitamin K1 supports the growth of typical fastidious bacteria like *Bacteroides* species and gram positive spore bearers like *Clostridium* species. Addition of blood provides nutrients and helps to differentiate haemolytic organisms. Sodium chloride helps in maintaining the osmotic equilibrium.

Quality Control

Appearance

Yellow to tan coloured homogeneous free flowing powder

Colour and Clarity of prepared medium

Basal medium : Yellow coloured; with addition of 5% v/v sterile, defibrinated sheep blood : cherry red coloured Basal medium : slightly opalescent; After addition of 5% v/v sterile, defibrinated sheep blood : opaque gel in petri plates

Reaction

Reaction of 4.4% w/v aqueous solution at 25°C. pH : 7.4±0.2

pH

7.20-7.60

Cultural Response

M975A: Cultural characteristics observed after 24-48 hours at 35-37°C with 5-10% CO2

Organism	Growth
Bacteroides fragilis ATCC 25285	luxuriant
Bacteroides melaninogenicus ATCC 25611	luxuriant

Peptostreptococcus anaerobius ATCC 27337	luxuriant

Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.

Reference

1. Dowell,Jr., V.R., Lombard,G.L, Thompson,F.S, Armfield,A.Y.: Media for isolation, characterization and identification of obligately anaerobic bacteria- US Department of Health and Human services, centers for Disease Control (1977).

Revision : 1 / 2011