Anaerobic Blood Agar Base

M1345

Intended Use:

Recommended for isolation and cultivation of Group A and Group B Streptococci from throat cultures and other clinical samples.

Composition**

Ingredients	Gms / Litre
Tryptone	14.500
Soya peptone	5.000
Sodium chloride	5.000
Growth Factors	1.500
Agar	14.000
Final pH (at 25°C)	7.3±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 40 grams in 990 ml purified / distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure(121°C) for 15 minutes. Cool to 45-50°C. Aseptically add rehydrated contents of 1 vial of Neomycin Supplement (FD149), and 5% v/v sterile defibrinated sheep blood. Mix well and pour into sterile Petri plates.

Principle And Interpretation

Group B streptococcus (GBS) infection is a common bacterial infection that is rarely serious in adults, but can be life-threatening to newborns. Group A Streptococci commonly causes strep throat and rarely, a potentially deadly destruction of flesh. Anaerobic Blood Agar Base with Neomycin Supplement is used for the isolation of Group A and Group B Streptococci from clinical specimens (1). This medium was originally formulated by Blanchette and Lawrence (2), by addition of the antibiotic Neomycin to sheep blood agar. This addition improved the detection of Group A & B Streptococci, while inhibiting the growth of the other accompanying haemolytic organisms.

Tryptone and soya peptone in the medium provide carbon and nitrogenous compounds, long chain amino acids, vitamins and other essential growth nutrients. Growth factors and defibrinated sheep blood together supply enrichment for growth of fastidious organisms. Sodium chloride helps in maintaining the osmotic equilibrium. Addition of Neomycin supplement (FD149) helps to suppress the normal flora thereby enhancing recovery of Group A and Group B Streptococci.

Type of specimen

Clinical samples - Vaginal or rectal swab

Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (2,3).
After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precaution

In Vitro diagnostic Use only. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets

Limitation

1. Due to nutritional variations, certain strains may show poor growth.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance
Cream to yellow homogeneous free flowing powder

Gelling
Firm, comparable with 1.4% Agar gel.

Colour and Clarity of prepared medium
Basal medium : Yellow coloured clear to slightly opalescent gel. After addition of 5%v/v sterile defibrinated blood : Cherry red coloured opaque gel forms in Petri plates

Reaction
Reaction of 4.0% w/v aqueous solution at 25°C. pH : 7.3±0.2

pH
7.10-7.50

Cultural Response
Cultural characteristics observed in presence of 5-10% CO2 with added 5%v/v sterile defibrinated sheep blood and Neomycin Supplement (FD149), after an incubation at 35-37°C for 24-48 hours.

Organism	Inoculum (CFU)	Growth	Recovery	Haemolysis
Escherichia coli ATCC 25922 (00013*)	50-100	none-poor	<=10%	none
Staphylococcus aureus subsp.aureus ATCC 25923 (00034*)	50-100	none-poor	<=10%	none
Streptococcus agalactiae ATCC 13813	50-100	good-luxuriant	>=50%	beta
Streptococcus pyogenes ATCC 19615	50-100	good-luxuriant	>=50%	beta

Key : *Corresponding WDCM numbers.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (0*1'.

Reference

1. Blanchette and Lawrence, 1967, Am. J. Clin. Pathol., 48-411
0. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
1. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
4. Murray P. R., Baron J. H., Pfaller M. A., Jorgensen J. H. and Yolken R. H., (Ed.). 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.

Reference

1. Murray P. R., Baron J. H., Pfaller M. A., Jorgensen J. H. and Yolken R. H., (Ed.). 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.
2. Blanchette and Lawrence, 1967, Am. J. Clin. Pathol., 48-411

Revision : 02 / 2016