Group A Streptococci Selective Agar Base(BETA-SSA-Agar Base) M1888

Recommended for the selective isolation of Group A Streptococci

Composition**

Ingredients	Gms / Litre
Enzymatic digest of casein	15.000
Enzymatic digest of soyabean meal	5.000
Sodium chloride	5.000
Agar	15.000
Final pH (at 25°C)	7.3±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 40 grams in 1000 ml 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 the rehydrated contents of one vial of Group A Selective supplement (FD302) and 5% v/v defibrinated blood. Mix well and pour into sterile Petri plates.

Principle And Interpretation

The group A beta-hemolytic streptococcus (GAS) (a single species, Streptococcus pyogenes, constituting Lancefield group A) is a form of beta-hemolytic Streptococcus bacteria. It is a gram-positive bacterium responsible for a wide range of both invasive and non-invasive infections

Group A Streptococci Selective Agar is used for selective isolation of group A Streptococci from throat cultures and Skin specimens(1). The medium with addition of blood provides additional growth nutrients and aids for perfectly defined haemolytic zones(2), while preventing the lysis of erythrocytes due to its sodium chloride content.

The combination of Pancreatic digest of casein and papaic digest of soyabean meal provide nitrogenous compounds, carbon, sulphur, trace elements and vitamin B complex, essential for Streptococci. Sodium chloride maintains the osmotic balance.The selective supplement inhibit Gram-negative bacteria and most Gram-positive bacteria.

Quality Control

Appearance
Cream to yellow homogeneous free flowing powder

Gelling
Firm, comparable with 1.5% 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 4.25% w/v aqueous solution at 25°C. pH : 7.3±0.2

pH
7.10-7.50

Cultural Response
Cultural characteristics observed with added 5% sterile defibrinated blood and sterile Group A Selective supplement(FD302), after an incubation at 35-37°C for 18-48 hours.

Cultural Response

Organism	Inoculum (CFU)	Growth	Recovery	Haemolysis

Cultural Response

Streptococcus agalactiae ATCC 13813	50-100	good	>=50%	
Staphylococcus aureus ATCC 25923	>=10^3	inhibited		
Streptococcus pneumoniae ATCC 6303	>=10^3	inhibited		
Streptococcus pyogenes ATCC 19615	50-100	good-luxuriant	>=70%	beta
Escherichia coli ATCC 25922	>=10^3	inhibited		

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. Group A Streptococcal disease,Centers for Disease Control and Prevention. Retrieved November 21, 2012.
2.Murray,P.R,E.J.Baron,M.A.Pfaller,F.C.Tenover, and R.H. Yolken(eds.).Manual of clinical microbiology,6th ed.American Society of Microbiology,Washington,D.C.

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