



Technical Data

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

| | | | | |
|---|-------------------|----------------|-------|------|
| <i>Streptococcus agalactiae</i> ATCC 13813 | 50-100 | good | >=50% | |
| <i>Staphylococcus aureus</i> ATCC 25923 | >=10 ³ | inhibited | | |
| <i>Streptococcus pneumoniae</i> ATCC 6303 | >=10 ³ | inhibited | | |
| <i>Streptococcus pyogenes</i> ATCC 19615 | 50-100 | good-luxuriant | >=70% | beta |
| <i>Escherichia coli</i> 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. Tenover (eds.). Manual of clinical microbiology, 6th ed. American Society of Microbiology, Washington, D.C.

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