# BETA-SSA Agar (Group A Streptococci Selective Agar)

**M1888**

## Intended Use:

Recommended for the selective isolation of Group A Streptococci.

## Composition**

| Ingredients | g / L |
|---|---|
| Tryptone | 15.000 |
| Soya peptone | 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 40.0 grams in 1000 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 the rehydrated contents of one vial of CO 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 *Streptococcus* 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 Tryptone and Soya peptone 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.

## Type of specimen

Clinical samples - Skin scrapings, throat swabs.

## Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (3,4).

After use, contaminated materials must be sterilized by autoclaving before discarding.

## Warning and Precautions :

In Vitro diagnostic Use only. For professional 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.

## Limitations :

1.*Staphylococcus* rarely grow on these media with characteristics, which can be easily recognised.

2.Biochemnical characterization is required for complete identification of the species

## 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 1.5% 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 CO Selective Supplement (FD302), after an incubation at 35-37°C for 18-48 hours.

| Organism | Inoculum (CFU) | Growth | Recovery | Haemolysis |
|---|---|---|---|---|
| *Streptococcus agalactiae* ATCC 13813 | 50-100 | good | >=50% | |
| *Staphylococcus aureus subsp. aureus* ATCC 25923 (00034*) | >=$10^4$ | inhibited | | |
| *Streptococcus pneumoniae* ATCC 6303 | >=$10^4$ | inhibited | | |
| *Streptococcus pyogenes* ATCC 19615 | 50-100 | good-luxuriant | >=70% | beta |
| *Escherichia coli* ATCC 25922 (00013*) | >=$10^4$ | inhibited | | |

Key : (*) Corresponding WDCM numbers.

## Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

## 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 (3,4).

## 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.

3.Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.

4.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.

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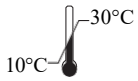
HiMedia Laboratories Pvt. Limited,
Plot No.C-40, Road No.21Y,
MIDC, Wagle Industrial Area,
Thane (W) -400604, MS, India

IVD ***In vitro*** **diagnostic medical device**




**Storage temperature**

EC REP CEpartner4U, Esdoornlaan 13,
3951DB Maarn, NL
www.cepartner4u.eu

**CE Marking**

**Do not use if package is damaged**

Disclaimer :

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