Casitose Soya Blood Agar Base

M1796

Intended use

Casitose Soya Blood Agar Base when supplemented with blood is recommended for cultivating fastidious microorganisms and study haemolytic reactions.

Composition**

Ingredients	Gms / Litre
Tryptone,special	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 grams in 1000ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15lbs pressure(121°C) for 15 minutes. Cool to 45-50°C and aseptically add 7% sterile sheep blood. Mix well and pour into sterile Petri plates.

Principle And Interpretation

Casitose Soya Agar, Modified is a nutrient medium, which can be used as a base medium as well as an unsupplemented medium. Casitose Soya Agar, Modified is a modified version of Tryptone Soya Agar, which is supplemented with 5-10% sterile blood. This medium is used for cultivation of fastidious organisms and for determining haemolytic reactions. The medium can be used in differentiation of *Streptococcus* species. The medium is supplemented with growth factors to achieve a better growth of fastidious microorganisms. Blood is the most common additive for Tryptone Soya Agar and it can be added at different concentrations between 5 and 15%.

Tryptone, special and soya peptone in the medium provide organic nitrogen and amino acids. Sodium chloride maintains osmotic balance of the medium. Sheep blood stimulates excellent growth and aids in the formation of appropriate hemolytic reactions of fastidious organisms. The medium with 5% horse blood supplies both X and V factors that are growth requirements for certain organisms; e.g. *Haemophilus influenzae* .Haemolytic reactions displayed by defibrinated horse blood differ from those of sheep blood (1).

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 : Light yellow coloured clear to slightly opalescent gel. After addition of 7%w/v sterile defibrinated blood : Cherry red coloured opaque gel forms in Petri plates

pH

7.10-7.50

Cultural response

Cultural characteristics was observed after an incubation for Bacterial at 30-35°C 18-24 hours.

Cultural Response

Organism	Inoculum (CFU)	Growth	Observed Lot value (CFU)	Recovery	Observed Lot value (CFU) w/blood	Recovery w/ blood
Cultural response						
Streptococcus pyogenes ATCC 19615	50 -100	luxuriant	35 -100	>=70 %	35 -100	18 -24 hrs
Staphylococcus aureus ATCC 25923 (00034*)	50 -100	luxuriant	35 -100	>=70 %	35 -100	18 -24 hrs
Staphylococcus aureus ATCC 6538 (00032*)	50 -100	luxuriant	35 -100	>=70 %	35 -100	18 -24 hrs
Escherichia coli ATCC 25922 (00013*)	50 -100	luxuriant	35 -100	>=70 %	35 -100	18 -24 hrs
Escherichia coli ATCC 8739 (00012*)	50 -100	luxuriant	35 -100	>=70 %	35 -100	18 -24 hrs
Streptococcus pneumoniae ATCC 6303	50 -100	luxuriant	35 -100	>=70 %	35 -100	18 -24 hrs
Neisseria meningitidis ATCC 13090	50 -100	luxuriant	35 -100	>=70 %	35 -100	18 -24 hrs

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 inorder 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. Use before expiry date on the label.
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 (2,3).

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