

Technical Information

Casein Soya Blood Agar Base

Product Code: DM 2796

Application: - Casein Soya Blood Agar Base when supplemented with blood is used for cultivating fastidious microorganisms and study haemolytic reactions.

Composition**

Ingredients	Gms / Litre
Casein enzymic hydrolysate, 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

Principle & Interpretation

Casein Soya Blood Agar Base is recommended for cultivation of fastidious organisms and for determining haemolytic reactions. This medium can be used in differentiation of *Streptococcus* species. Casein Soya Agar, Modified is a nutrient medium, which can be recommended as a base medium as well as an un supplemented medium. Casein Soya Agar, Modified is a modified version of Tryptone Soya Agar, which is supplemented with 5-10% sterile blood. 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%.

Casein enzymic hydrolysate, special and soya peptone in the medium supply organic nitrogen and amino acids. Sodium chloride helps to 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).

Methodology

Suspend 40 grams of dehydrated media in 1000ml distilled water. Mix thoroughly & 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. Shake well before pour into sterile Petri plates.

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity

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 Range

7.10-7.50



Dehydrated Culture Media
Bases / Media Supplements

Cultural response

DM2796: 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						
<i>Streptococcus pyogenes ATCC 19615</i>	50 -100	luxuriant	35 -100	>=70 %	35 -100	18 -24 hrs
<i>Staphylococcus aureus ATCC 25923</i>	50 -100	luxuriant	35 -100	>=70 %	35 -100	18 -24 hrs
<i>Staphylococcus aureus ATCC 6538</i>	50 -100	luxuriant	35 -100	>=70 %	35 -100	18 -24 hrs
<i>Escherichia coli ATCC25922</i>	50 -100	luxuriant	35 -100	>=70 %	35 -100	18 -24 hrs
<i>Escherichia coli ATCC 8739</i>	50 -100	luxuriant	35 -100	>=70 %	35 -100	18 -24 hrs
<i>Streptococcus pneumoniae ATCC 6303</i>	50 -100	luxuriant	35 -100	>=70 %	35 -100	18 -24 hrs
<i>Neisseria meningitidis ATCC 13090</i>	50 -100	luxuriant	35 -100	>=70 %	35 -100	18 -24 hrs

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and prepared medium at 2-8°C. Use before expiry date on label.

Prepared Media: 2-8° in sealable plastic bags for 2-5 days.

Further Reading

1. Murray P. R., Baron J. H., Pfaller M. A., Tenover J. C. and Tenover F. C., (Ed.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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