

Technical Information

Sodium Azide Crystal Violet Blood Agar

Product Code: DM 1767

Application: - Sodium Azide Crystal Violet Blood Agar is used for selective cultivation of *Erysipelothrix rhusiopathiae*.

Composition**

Ingredients	Gms / Litre
Beef heart, infusion from	10.000
Casein enzymic hydrolysate	20.000
Sodium chloride	5.000
Glucose	0.200
Sodium azide	0.300
Crystal violet	0.002
Agar	15.000
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Sodium Azide Crystal Violet Blood Agar is prepared based on the formula described by Packer (1) for selective cultivation of *Erysipelothrix rhusiopathiae*. It can also be used for the isolation of Streptococci especially *Streptococcus pneumoniae*.

Beef heart infusion and casein enzymic hydrolysate supply the necessary nitrogenous compounds and other essential nutrients to the organisms. Glucose acts as fermentable carbohydrate source in the medium but is weakly fermented by *Erysipelothrix rhusiopathiae* without the gas production. Crystal violet and sodium azide inhibit most of the gram-positive and gram-negative bacteria respectively (2). Blood provides the growth factors and also aid to detect the haemolytic reaction if any. Sodium chloride helps to maintain the osmotic balance of the medium.

Methodology

Suspend 50.5 grams of dehydrated powder media in 950 ml distilled water. Mix thoroughly & heat to boil to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 50°C and aseptically add 5% v/v sterile defibrinated blood. Shake well and pour into sterile Petri plates.

Warning: Sodium azide has a tendency to form explosive metal azides with plumbing materials. It is advisable to use enough water to flush off the disposables.

Quality Control

Appearance

Light yellow coloured with purple tinge homogeneous free flowing powder.

Gelling

Firm, comparable with 1.5% Agar gel.

Colour and Clarity

Basal Medium yields purple coloured clear to slightly opalescent gel. With addition of blood, reddish purple coloured opaque gel forms in petri plates.

Reaction

Reaction of 5.05% w/v aqueous solution at 25°C. pH : 7.0±0.2



Dehydrated Culture Media
Bases / Media Supplements

pH Range

6.80-7.20

Cultural Response

DM1767: Cultural characteristics after 18 - 24 hours at 35 - 37°C with 5-10% CO₂ or after 48 hours at 35°C, in an anaerobic atmosphere.

Organism

Escherichia coli ATCC 25922

Growth

inhibited

Erysipelothrix rhusiopathiae ATCC 19414

good-luxuriant

Proteus mirabilis ATCC 25933

inhibited

Streptococcus pneumonia ATCC 6303

good-luxuriant

Staphylococcus aureus ATCC 25923

inhibited

Storage and Shelf Life

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

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

Further Reading

1. Packer R.A., 1943, J. Bact., 46 : 343.

2. MacFaddin J., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.

Disclaimer :

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