



Beijerinckia Medium

M708

Beijerinckia medium is used for the isolation of *Beijerinckia* species.

Composition**

Ingredients	Gms / Litre
Monopotassium phosphate	0.800
Sucrose	20.000
Dipotassium phosphate	0.200
Magnesium sulphate	0.500
Ferric chloride	0.100
Sodium molybdate	0.005
Agar	15.000
Final pH (at 25°C)	6.5±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 36.6 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. Mix well and pour into sterile Petri plates.

Principle And Interpretation

Beijerinckia characterizes its members as non-symbiotic, aerobic chemoheterotrophic bacteria with the ability to fix atmospheric nitrogen (1). The free living bacteria having the ability to fix molecular nitrogen can be distinguished into obligate aerobic facultative aerobic and anaerobic organisms. *Beijerinckia* is an obligate aerobic bacterium. Beijerinckia Medium is used for the isolation of *Beijerinckia* species (2). Though members of this species utilize a wide range of multicarbon compounds, sugars are the preferred growth substrates.

Sucrose is the energy source, phosphates serve as buffers and magnesium sulphate, ferric chloride and sodium molybdate act as trace elements.

Quality Control

Appearance

White to cream homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

Colourless clear to slightly opalescent gel forms in Petri plates.

Reaction

Reaction of 3.66% w/v aqueous solution at 25°C. pH : 6.5±0.2

pH

6.30-6.70

Cultural Response

M708: Cultural characteristics observed after an incubation at 20-30°C for 18-48 hours.

Organism

Growth

Beijerinckia indica ATCC

luxuriant

21423

Beijerinckia mobilis

luxuriant

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. Duorkir M. et al (Ed.), 1999, 3rd Ed. N.Y.
2. Becking J.H, 1959, PC soil, 11 193 - 206.

Revision : 2 / 2015

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