Staibs Medium (Bird Seed Agar)

M675

Staibs Medium (Bird Seed Agar) is used for selective isolation and differentiation of *Cryptococcus neoformans* from other *Cryptococcus* species and yeasts.

Composition**

Ingredients	Gms / Litre
Guizotia abyssinica seeds	70.000
Creatinine	0.780
Dextrose	10.000
Chloramphenicol	0.050
Agar	20.000
Final pH (at 25°C)	6.7±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 10.08 grams in 99 ml 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°C and add 100 mcg diphenyl per ml of medium (1 ml of sterile 1% w/v aqueous solution of dipehnyl). Mix well and pour into sterile Petri plates.

Principle And Interpretation

Cryptococcus neoformans is an encapsulated yeast-like fungus that can live in both plants and animals. This species, also known by its teleomorph name, *Filobasidiella neoformans* , belongs to the broad class of organisms called “club fungi” or division Basidiomycota, which is one the five major types of fungi.

C. neoformans usually grows as a yeast (unicellular) and replicates by budding (1). Staibs Medium (Bird Seed Agar) is formulated for selective isolation and differentiation of *C. neoformans* from other *Cryptococcus* species and other yeasts. This media is formulated by Staib (2) and Shields and Ajello (3).

Guizotia abyssinica seeds, creatinine and dextrose provide nutrients for the growth of *C. neoformans* . Chloramphenicol inhibits the bacteria as well as rapidly growing moulds that often overgrow the slow-growing dimorphic fungi.

Quality Control

Appearance
Light yellow to light brown hygroscopic soft lumps which can be easily broken down to powder

Gelling
Firm, comparable with 2.0% Agar gel.

Colour and Clarity of prepared medium
Medium amber coloured opalescent gel forms in Petri plates

Reaction
Reaction of 10.1% w/v aqueous solution at 25°C. pH : 6.7±0.2

pH
6.50-6.90

Cultural Response
M675: Cultural characteristics observed after an incubation at 30°C for 2 weeks.

Organism	Inoculum (CFU)	Growth	Colour of colony
Cultural Response			
Cryptococcus neoformans ATCC 32045	50-100	good	brownish yellow pigment
Staphylococcus aureus ATCC 25923	>=10^3	inhibited	

Storage and Shelf Life

Store between 15-25°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.

Reference

1. Casadevall A, Perfect J. R., 1998, Cryptococcus neoformans, ASM Press, Washington, D.C.
2. Staib F., 1962, Med. Microbiol. Immunol., 148,466
3. Shields A. B. and Ajello L., 1966, Science, 151, 208

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