



## 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 diphenyl). 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
<b>Cultural Response</b>			
<i>Cryptococcus neoformans</i> ATCC 32045	50-100	good	brownish yellow pigment
<i>Staphylococcus aureus</i> ATCC 25923	>=10 <sup>3</sup>	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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