Technical Information

Staibs Medium (Bird Seed Agar)

Product Code: DM 1675

Application: - Staibs Medium (Bird Seed Agar) is recommended 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

Principle & Interpretation

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

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.

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

Methodology

Suspend 10.08 grams of dehydrated powder media in 99 ml distilled water. Mix thoroughly& 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). Shake well before pour into sterile Petri plates.

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

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 Range

6.50-6.90

Cultural Response

DM1675: Cultural characteristics observed after an incubation at 30°C for 2 weeks.

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

Storage and Shelf Life

Dried Media: Store between 15-25°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. 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

Disclaimer :