



## Rice Extract Agar

M1026

Rice Extract Agar is recommended for identification of *Candida albicans* by means of its chlamyospore production.

### Composition\*\*

Ingredients	Gms / Litre
White rice extract	20.000
Agar	20.000
Final pH ( at 25°C)	7.1±0.2

\*\*Formula adjusted, standardized to suit performance parameters

### Directions

Suspend 40 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Add 10 ml Polysorbate 80. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and pour into sterile Petri plates.

### Principle And Interpretation

Rice Extract Agar is used for the identification and promotion of chlamyospores formation by *Candida albicans* and *C. stellatoides*. Taschdjian developed this medium to aid in the identification of *Candida* species producing chlamyospores, the differentiating positive species from other *Candida* species (3, 4). It has been shown by Kelly and Funigiello (1) and Waker and Huppert (2) that the addition of tween 80 (Polysorbate 80) to Rice Extract Agar enhances the formation of chlamyospores by *C. albicans*. However, tween 80 also favored chlamyospores formation in other *Candida* species, therefore its use necessitated employing further media for species identification (5). Rice extract provides the nutrients required for the growth of *Candida* species. The addition of polysorbate 80 stimulates chlamyospore formation due to its content of oleic acids. Chlamyospore production is also favored by the use of a lower concentration, 13 g/L of medium, although the medium can be prepared at a higher concentration (25 g/L). Rice Extract Agar with 2% dextrose may be used to promote chromogenesis (pigment formation) and, therefore, is helpful in distinguishing *Trichophyton rubrum* from *Trichophyton mentagrophytes*. Inoculate by cutting through the surfaces of the agar with the inoculation wire.

Incubate the inoculated medium at 24-25°C for 18-72 hours. Examine for chlamyospores production microscopically using approximately 100 X magnifications and by focusing upon the line of inoculation.

### Quality Control

#### Appearance

White to light yellow homogeneous free flowing powder

#### Gelling

Firm, comparable with 2.0% agar gel.

#### Colour and Clarity of prepared medium

Light yellow coloured clear to slightly opalescent gel forms in Petri plates

#### Reaction

Reaction of 4.0% w/v aqueous solution at 25°C. pH : 7.1±0.2

#### pH

6.90-7.30

#### Cultural Response

M1026: Cultural characteristics observed after an incubation at 24-25°C for 18-72 hours.

Organism	Growth	Chlamyospores
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#### Cultural Response

<i>Candida albicans</i> ATCC 10231	good-luxuriant	positive
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*Candida tropicalis* ATCC 1369 good-luxuriant negative

### 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. Kelly J. P. and Funigiello F., 1959, J. Lab. And Clin. Med., 53:807
2. Walker L. and Huppert M., 1960, Tech. Bull. Reg. Of Med. Tech., 30:10
3. Taschdjian C. L., 1957, Mycologia 49:332.
4. Taschdjian C. L., 1953, Mycologia 45:474.
5. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. 1. Williams & Wilkins, Baltimore, M.d.

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