# Technical Information

## Rice Extract Agar

## Product Code: DM 2026

**Application: -** Rice Extract Agar is recommended for identification of *Candida albicans* by means of its chlamydospore 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

## Principle & Interpretation

Rice Extract Agar is used for the identification and promotion of chlamydospores formation by *Candida albicans* and *C. stellatoides.* Taschdjian developed this medium for in the identification of *Candida* species producing chlamydospores, for 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 chlamydospores by *C. albi cans* . However, tween 80 also favored chlamydospores formation in other *Candida* species, therefore its impose the need of the other media for species identification (5).Rice extract provides the nutrients required for the growth of Candida species. The addition of polysorbate 80 stimulates chlamydospore formation due to its content of oleic acids. Chlamydospore 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 chlamydospores production microscopically using approximately 100 X magnifications and by focusing upon the line of inoculation.

## Methodology

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 (12 1°C) for 15 minutes. Mix well and pour into sterile Petri plates.

## Quality Control

**Physical 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 Range** 6.90-7.30

**Cultural Response/Characteristics**

DM2026: Cultural characteristics observed after an incubation at 24-25°C for 18-72 hours.

| Cultural Response | Growth | Chlamydospores |
|---|---|---|
| *Candida albi cans ATCC 10231* | Good-Luxuriant | Positive |
| *Candida tropicalis ATCC 1369* | Good-Luxuriant | Negative |

## Storage and Shelf Life

**Dried Media:** Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.
**Prepared Media:** 2-8$^0$ in sealable plastic bags for 2-5 days.

## Further Reading

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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