



## Czapek Yeast Extract Agar

M1335

Czapek Yeast Extract Agar is recommended for the cultivation and maintenance of *Aspergillus brasiliensis*.

### Composition\*\*

Ingredients	Gms / Litre
Sucrose	30.000
Yeast extract	5.000
Dipotassium hydrogen phosphate	1.000
Sodium nitrate	0.300
Potassium chloride	0.050
Magnesium sulphate	0.050
Ferrous sulphate	0.001
Zinc sulphate	0.001
Copper sulphate	0.0005
Agar	15.000

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

### Directions

Suspend 51.40 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and pour into sterile Petri plates.

### Principle And Interpretation

*Aspergillus* belongs to the group Ascomycota, members of which are generally referred as Ascomycetes. *Aspergillus brasiliensis* is one of the most common species of the genus *Aspergillus* and ubiquitously present in soil. *Aspergillus brasiliensis* is cultured for the industrial production of many substances. Various strains of *Aspergillus brasiliensis* are used in the industrial preparation of citric acid and gluconic acid. These substances have been assessed as acceptable for daily intake by the World Health Organisation. Many enzymes are also produced using *Aspergillus brasiliensis*. These include glucoamylase and  $\alpha$ -galactosidase, and other medications which claim to prevent flatulence. Another use of *Aspergillus brasiliensis* in the biotechnology industry is in the production of magnetic isotope-containing variants of biological macromolecules for NMR analysis.

Czapek Yeast Extract Agar is recommended for the cultivation and maintenance of *Aspergillus brasiliensis* (1). This medium supports the abundant growth of almost all saprophytic Aspergilli (2). Sucrose serves as the source of energy. Yeast extract provides essential amino acids, vitamins and other essential nutrients. Sodium nitrate serves as the nitrogen sources. The various salts buffer the medium in addition to supplying essential ions to the growing fungi.

### Quality Control

#### Appearance

Cream to yellow homogeneous free flowing powder

#### Gelling

Firm, comparable with 1.5% Agar gel

#### Colour and Clarity of prepared medium

Light yellow coloured, clear to slightly opalescent gel with a slight precipitate forms in Petri plates.

#### Cultural Response

M1335: Cultural characteristics observed after an incubation at 25-30°C for 48-72 hours

Organism	Growth
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#### Cultural Response

<i>Aspergillus brasiliensis</i>	luxuriant
ATCC 16404	

Key : \* - Formerly known as *Aspergillus niger*

## 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. Atlas R. M., 2004, Handbook of Microbiological Media 3rd Edition, CRC Press.
2. Thom and Raper, 1945, Manual of Aspergilli, 39.

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### Disclaimer :

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