

## TM 709 – CZAPEK YEAST EXTRACT AGAR

### INTENDED USE

For cultivation and maintenance of *Aspergillus brasiliensis*.

### PRODUCT SUMMARY AND EXPLANATION

*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*. This medium supports the abundant growth of almost all saprophytic Aspergilli.

### COMPOSITION

Ingredients	Gms / Ltr
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

### PRINCIPLE

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.

### INSTRUCTION FOR USE

- Dissolve 51.40 grams in 1000 ml purified / distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 45-50°C.
- Mix well and pour into sterile Petri plates.

### QUALITY CONTROL SPECIFICATIONS



**Appearance of Powder** : Cream to yellow homogeneous free flowing powder.  
**Appearance of prepared medium** : Light yellow coloured, clear to slightly opalescent gel with a slight precipitate forms in Petri plates.  
**pH (at 25°C)** : 6.8±0.2

### INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
<i>Aspergillus brasiliensis</i>	16404	10-100	Luxuriant	≥70%	25-30°C	48-72 Hours

### PACKAGING:

In pack size of 500 gm bottles.

### STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.










**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

### DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

### REFERENCES

1. Atlas R. M., 2004, Handbook of Microbiological Media 3rd Edition, CRC Press.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.

 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. Lot / Batch Number	 Consults Instructions for Use	 QR Code	

**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

\*For Lab Use Only  
Revision: 08 Nov., 2019