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Czapek Yeast Extract Agar

Recommended for cultivation and maintenance of *Aspergillus niger*

REF: BS.1/CZ01.100.0100	100 Gram	REF: BS.1CZ01.250.0250	250 Gram
REF: BS.1/CZ01.500.0500	500 Grams		

CLINICAL SIGNIFICANCE

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 a-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

MEDIA COMPOSITION

Item	Formula per liter of medium g/l
Sucrose	30 gm.
Yeast Extract	5.0 gm.
Dipotassium hydrogen phosphate	1.0 gm.
Sodium nitrate	0.30 gm.
Potassium chloride	0.05 gm.
Magnesium sulphate	0.05 gm
Ferrous sulphate	0.001 gm
Zinc sulphate	0.001 gm
Copper sulphate	0.0005 gm
Agar	15 gm

Final pH 5.5 ± 0.2 at 25°C

PRECAUTIONS AND WARNINGS

Media to be handled by entitled and professionally educated person. Do not ingest or inhale.

Good Laboratories practices using appropriate precautions should be followed in:

- Wearing personnel protective equipment (overall, gloves, glasses,).
- Do not pipette by mouth.
- In case of contact with eyes or skin; rinse immediately with plenty of soap and water. In case of severe injuries; seek medical advice immediately.
- Respect country requirement for waste disposal.
  S56: dispose of this material and its container at hazardous or special waste collection point.
  S57: use appropriate container to avoid environmental contamination.
  S61: avoid release in environment.

For further information, refer to the Czapek Yeast Extract Agar material safety data sheet.

STORAGE AND STABILITY

BioScien Czapek Yeast Extract Agar should be stored between 10-30°C in a firmly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to avoid lump development due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in a dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

PREPARATION

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

Deterioration

The color of ***BioScien*** Czapek Yeast Extract Agar is Cream to yellow homogeneous free flowing powder. Prepared Media Light yellow coloured, clear to slightly opalescent gel. If there are any physical changes for powder or signs of deterioration (shrinking, cracking, or discoloration), and contaminations for hydrated media, discard the medium.

SPECIMEN

Pure isolates

EQUIPMENT REQUIRED NOT PROVIDED

- Inoculating loops, swabs, collection containers
- Incubators
- Sterile petri plates
- Anaerobic chamber / anaerobic jars

QUALITY CONTROL

To ensure adequate quality control, it is recommended that positive and negative control included in each run. If control still out of range please contact ***BioScien*** technical support

PERFORMANCE CHARACTERISTICS

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

Organism	Result
Aspergillus brasiliensis ATCC 16404 (00053)*	luxuriant

REFERENCES

1. Atlas R. M., 2004, Handbook of Microbiological Media 3rd Edition, CRC Press.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
3. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

SYMBOLS IN PRODUCT LABELLING	
LOT Batch Code/Lot number	Caution
REF Catalogue Number	Do not use if package is damaged
Temperature Limitation	Consult Instruction for use
Expiration Date	
Manufactured by	