

Czapek Dox Agar

Czapek Dox Agar is a semisynthetic medium used for the general cultivation of fungi.

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

CLINICAL SIGNIFICANCE

Fungi, including yeasts and filamentous species or moulds are ubiquitously distributed in nature. Czapek Dox Agar is a semisynthetic medium used for the cultivation of fungi, containing sodium nitrate as the sole source of nitrogen. This medium is prepared according to the formula developed by Thom and Church (4), which has a defined chemical composition. Czapek Dox Agar is recommended by APHA (1) for isolation of *Aspergillus*, *Penicillium*, *Paecilomyces* and some other fungi with similar physiological requirements.

METHOD PRINCIPLE

Sucrose serves as the sole source of carbon while sodium nitrate serves as the sole source of nitrogen. Dipotassium phosphate buffers the medium. Magnesium sulphate, potassium chloride, ferrous sulphate serves as sources of essential ions.

MEDIA COMPOSITION

Item	Formula per liter of medium
- Sucrose	30.00 gm.
- Sodium nitrate	2.000 gm.
- Dipotassium Phosphate	1.000 gm.
- Magnesium Sulphate	0.500 gm.
- Potassium Chloride	0.500 gm.
- Ferrous sulphate	0.010 gm.
- Agar	15.00 gm.

Final pH (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 Dox Agar Material safety datasheet.

EQUIPMENT REQUIRED NOT PROVIDED

- Sterile plates
- Incubator
- Autoclave

STORAGE AND STABILITY

BioScien Czapek Dox 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

1. Suspend 49.01 grams in 1000 ml distilled water
2. Heat to boiling to dissolve the medium completely.
3. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.
4. Cool to 45-50°C. Mix well and pour into sterile Petri plates.

Deterioration

The color of **BioScien** Czapek Dox Agar is Cream to yellow homogeneous free flowing powder. Prepared Medium is Light yellow coloured, clear to slightly opalescent gel with a slight precipitate forms in Petri plates. 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

Water samples

QUALITY CONTROL

To ensure adequate quality control, it is recommended that positive and negative control included in each run. If control values are found outside the defined range, check the system performance. 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.

Oranism	Growth
<i>Aspergillus brasiliensis</i> ATCC 16404	luxuriant
<i>Candida albicans</i> ATCC 10231	luxuriant
<i>Saccharomyces cerevisiae</i> ATCC 9763	luxuriant

REFERENCES

1.Baird R.B., Eaton A.D., and Rice E.W., (Eds.), 2015, Standard Methods for the Examination of Water and Wastewater, 23rd ed., APHA, Washington, D.C.

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.

4.Thom and Church, 1926, The Aspergilli, 39.

SYMBOLS IN PRODUCT LABELLING			
IVD	For in-vitro diagnostic use		Number of <n> test in the pack
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		