



Czapek Dox Agar

RDM-CDA-01

Principle

Czapek Dox agar consists of sucrose, sodium nitrate, dipotassium phosphate, magnesium sulphate, potassium chloride and ferrous sulphate. Sucrose serves as the source of carbon while sodium nitrate serves as source of nitrogen. Dipotassium phosphate buffers the medium. Magnesium sulphate, potassium chloride, ferrous sulphate serves as sources of essential ions. Agar is solidifying agent.

Use: Recommended for the general isolation and cultivation of fungi from water samples.

Contents*

Ingredients	Gram/Litre
Sucrose	30.00
Sodium Nitrate	2.00
Dipotassium Phosphate	1.00
Magnesium Sulphate	0.50
Potassium Chloride	0.50
Ferrous Sulphate	0.01
Agar	15.00
pH at 25°C	7.3 ±0.2

* Formula adjusted for optimum performance and parameters

Directions: Dissolve 49.00 grams in 1000 ml distilled water. Boil to dissolve the medium completely and sterilize by autoclaving at 15 lbs pressure (121 °C) for 15 min, cool it to 42-45 °C and distribute aseptically. Ensure complete solidification and inoculate test sample aseptically.

Specimens types analyzed

Pharmaceutical samples, clinical and non-clinical samples etc.

Precautions to be taken

These microbial media are intended for the in-vitro use only. All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving. Please go through the MSDS of the media to avoid any accidents or in emergency.

Performance and Evaluation

The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

Quality Control

Appearance	Light beige colored free flowing, homogeneous powder
Reaction of 4.9% solution	7.3 ±0.2 at 25 °C
pH	7.10- 7.50
Gelling	Firm comparable with 1.5% agar gel
Color and clarity of ready medium	Light amber colored opalescent gel
Growth Promotion properties	Best at ≤ 100 CFU at 32-37 °C for 18-72 h
Indicative properties	Optimum at ≤ 100 CFU at 32-37 °C for 18-48 h
Negative control	Performed using sterile distilled water

Different Microbial Response

Organism	ATCC	Inoculum	Growth	Incubation Temperature	Incubation period
<i>Candida albicans</i>	10231	50-100	Luxurious	33-37 °C	18-72 h
<i>Aspergillus brasiliensis</i>	16404	50-100	Luxurious	33-37 °C	18-72 h

Storage and Shelf Life

Hygroscopic; keep container tightly closed. Store in cool dry place.

Disposal: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.

Reference

1. Atlas, R. M. (2005). *Handbook of media for environmental microbiology*. CRC press.
2. *Difco Manual* (1998). 11th Edition. Difco Laboratories., Division of Becton Dickinson and Company, Sparks, Maryland, USA.
3. Rand, M. C., Arnold E. Greenberg, and Michael J. Taras, (1976), *Standard methods for the examination of water and wastewater*. Prepared and published jointly by American Public Health Association, American Water Works Association, and Water Pollution Control Federation.
4. Dox, A. W. (1910). *The intracellular enzymes of Penicillium and Aspergillus with special references to those of P. camemberti*. U.S. Dept. Agr. Bur. Anim. Ind. Bull. 120:70.

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CHAITANYA AGRO BIOTECH PVT. LTD. An ISO 11134:2014, ISO 13485:2016, ISO 9001:2015 CE, CIN NO.: U24210MH1995PTC095220S,
S. No. 120/2, Laxmi Nagar, Umbarnala Road, Malkapur-443101, Dist.: Buldana (M.S.) India. Customer Care +91-8669083859
rdmsales@chaitanyagroupindia.com, mkt.cabt@chaitanyagroupindia.com, www.chaitanyagroupindia.com