# Modified Czapek Dox Agar ,Granulated

**GM1170**

## Intended Use:

Czapek Dox Agar, Modified Granulated is used for the cultivation and maintenance of numerous fungal species.

## Composition**

| Ingredients | Gms / Litre |
|---|---|
| Sucrose | 30.000 |
| Sodium nitrate | 2.000 |
| Magnesium glycerophosphate | 0.500 |
| Potassium chloride | 0.500 |
| Dipotassium sulphate | 0.350 |
| Ferrous sulphate | 0.010 |
| Agar | 12.000 |
| Final pH ( at 25°C) | 6.8±0.2 |

**Formula adjusted, standardized to suit performance parameters

## Directions

Suspend 45.36 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. For preparing selective medium (M1170), acidify the media upto pH 3.0-4.0 by the addition of one vial of 10% Lactic acid solution (FD095).

## Principle And Interpretation

Czapek Dox Agar, Modified supports the growth of organisms which are able to utilize sodium nitrate as the sole source of nitrogen. It is also used for the cultivation and maintenance of numerous fungal species and also for chlamydospore production by *Candida albicans*(1). The medium has been recommended by various authours for studies of *Aspergillus, Penicillium and Actinomycetes* (2-5).

Sodium nitrate is the sole source of nitrogen while sucrose is the sole source of carbon. Magnesium glycerophosphate and potassium sulphate help in chlamydospore production by *C. albicans*. Chlamydospore production can be observed by spreading the inoculum between the agar and the Petri plate.

## Type of specimen

Clinical samples; Water samples

## Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (6,7).

For water samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards.(8)

After use, contaminated materials must be sterilized by autoclaving before discarding.

## Warning and Precautions :

In Vitro diagnostic use. For professional use only. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

## Limitations :

1. Individual organisms differ in their growth requirement and may show variable growth patterns on the medium.
2. Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement.

## Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

## Quality Control

**Appearance**

White to light yellow colored granular medium.

**Gelling**

Firm, comparable with 1.2% Agar gel.

**Colour and Clarity of prepared medium**

Light yellow coloured, clear to slightly opalescent gel forms in Petri plates

**Reaction**

Reaction of 4.54% w/v aqueous solution at 25°C. pH : 6.8±0.2

**pH**

6.60-7.00

**Cultural Response**

Cultural characteristics observed with added 10% Lactic acid solution (FD095) after an incubation at different temperatures for 24 -48 hours.

| Organism | Growth | Incubation temperature |
|---|---|---|
| *Aspergillus fumigatus* ATCC 1028 | luxuriant | 50°C |
| *#Aspergillus brasiliensis* ATCC 16404 (00053*) | luxuriant | 30°C |
| *Candida albicans* ATCC 10231 (00054*) | luxuriant (Chlamydospores formation) | 28°C |
| *Pencillium notatum* ATCC 10108 | luxuriant | 20 - 25°C |
| *Saccharomyces cerevisiae* ATCC 9763 (00058*) | luxuriant | 25 - 30°C |

Key :*Corresponding WDCM numbers. # Formerly known as *Aspergillus niger*

## Storage and Shelf Life

Store between 10-30°C in a tightly 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 prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in 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.

## Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (6,7).

## Reference


1. Dawson and Christine O., 1962, Saboutaudia; 1:214.
2. Raper K.B. and Thom C., 1949, Manual of Penicillia, Williams and Wilkins Co., Baltimore.
3. Thom C. and Church M.B., 1926, The Aspergilli, Williams and Wilkins Co., Baltimore.
4. Thom C., 1930, The Penicillia, Williams and Wilkins Co., Baltimore.
5. Wakesman S.A., 1931, Principles of Soil Microbiology, Bailliere Thindall and Co., London.
6. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
7. 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.
8. Lipps WC, Braun-Howland EB, Baxter TE,eds. Standard methods for the Examination of Water and Wastewater, 24th ed. Washington DC:APHA Press; 2023.


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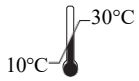
IVD ***In vitro* diagnostic medical device**




**Storage temperature**

EC REP CEpartner4U, Esdoornlaan 13,
3951DB Maarn, NL
www.cepartner4u.eu

**CE Marking**

**Do not use if package is damaged**

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