

Technical Information

Czapek Dox Broth

Product Code: DM 1076

Application: - Agar is recommended for the cultivation of anaerobic bacteria, especially *Clostridium* species and other anaerobic organisms.

Composition**

Ingredients	Gms / Litre
Sucrose	30.000
Sodium nitrate	3.000
Dipotassium phosphate	1.000
Magnesium sulphate	0.500
Potassium chloride	0.500
Ferrous sulphate	0.010
Final pH (at 25°C)	7.3±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Fungi, including yeasts and filamentous species or moulds are ubiquitously in nature. Czapek Dox Broth is a semi-synthetic medium used for the cultivation of fungi, requiring sodium nitrate as the sole source of nitrogen. This medium is prepared according to the formula of Thom and Church ⁽¹⁾, which has a defined chemical composition. Czapek Dox Broth is the modification of the original medium of Czapek Dox ^(2, 3) as per Thomas and Raper ⁽⁴⁾.

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.

Methodology

Suspend 35.01 grams of powder media in 1000 ml distilled water. Shake well & heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and dispense as desired.

Quality Control

Physical Appearance

Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Light yellow coloured, clear to slightly opalescent solution in tubes

Reaction

Reaction of 3.5% w/v aqueous solution at 25°C. pH : 7.3±0.2

pH range 7.10-7.50

Cultural Response/ characteristics

DM 1076: Cultural characteristics observed after an incubation at 25-30°C for 48-72 hours.



Dehydrated Culture Media
Bases / Media Supplements

Organism	Inoculum (CFU)	Growth
*Aspergillus brasiliensis ATCC 16404	50-100	good-luxuriant
Candida albicans ATCC 10231	50-100	good-luxuriant
Saccharomyces cerevisiae	50-100	good-luxuriant

Key : * - Formerly known as *Aspergillus niger* ATCC 16404

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

Prepared Media: 2-8° in sealable plastic bags for 2-5 days.

Further Reading

1. Thom and Church, 1926, The Aspergilli, 39.
2. Czapek, 1920-1903, Bcitr. Chem. Physiol. Pathol., 1:540
3. Dox, 1910, U.S. Dept. of Agr. Bur. Anim. Ind. Bull., 120:70
4. Thom and Raper, 1945, Manual of Aspergilli, 39.

Disclaimer :

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