

C1551 Czapek-Dox broth

Semi-synthetic medium used for the general cultivation of fungi.

Composition:

Ingredients	Grams/Litre
Sucrose	30.0
Sodium Nitrate	3.0
Magnesium Sulfate	0.5
Potassium Chloride	0.5
Potassium Phosphate Dibasic	1.0
Ferrous Sulfate	0.01
Final pH 7.3 +/- 0.2 at 25°C	

Store prepared media below 8°C, protected from direct light. Store dehydrated powder, in a dry place, in tightly-sealed containers at 2-25°C.

Appearance: Cream to yellow, homogeneous, free flowing powder.

Color and Clarity: Light yellow colored, clear to slightly opalescent solution in tubes.

Directions:

Suspend 35.0 g/L in water, boil to dissolve the medium completely. Sterilize by autoclaving at 121°C for 15 minutes. Mix well and dispense as desired

Principle and Interpretation:

Fungi, including yeasts and filamentous species or molds are ubiquitously distributed in nature. They may be found wherever non-living organic matter occurs. Because fungi possess broad enzymatic capabilities, they can actively degrade most complex natural substances and certain synthetic compounds. Czapek-Dox Agar is a semi-synthetic broth 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 (7), which has a defined chemical composition. Czapek Dox Broth is the modification of the original medium of Czapek Dox (1, 3) as per Thom and Raper (8).

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.

Cultural characteristics after 48-72 hours at 25-30°C.

Organisms (ATCC)	Growth
<i>Aspergillus brasiliensis</i> (16404)	+++
<i>Saccharomyces cerevisiae</i> (9763)	+++
<i>Candida albicans</i> (10231)	++



References:

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Precautions and Disclaimer

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