

FT-A2WQ00



Czapek-Dok Modified Broth

For the cultivation of fungi and bacteria using sodium nitrate as a sole source of nitrogen

Product Description

Name :	Czapek-Dok Modified Broth	
Catalog Number :	A2WQ00, 500 g	
Formula in g/l :	Sucrose	30,00
	Potassium Chloride	0,50
	Sodium Nitrate	3,00
	Magnesium Glycerophosphate	0,50
	Dipotassium Sulfate	1,00
	Ferrous Sulfate	0,01
Final pH:	6,8 ± 0,2 at 25°C	

Storage: 2-25°C. Once opened keep powdered medium closed to avoid hydration.

Directions for use

Preparation

Suspend 35 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Dispense into appropriate containers and sterilize in autoclave at 121°C for 15 minutes. The prepared medium should be stored at 2-8°C. The color is colorless, and may present a slight precipitate.

The dehydrated medium should be homogeneous, free-flowing and clear beige in color. If there are any physical changes, discard the medium.

Use

CZAPEK-DOX MODIFIED BROTH is commonly used for the cultivation of fungi and *Candida albicans*. It is similar to Czapek-Dox Modified Agar (Cat. 1015), without the agar, and is used to grow bacteria and fungi which are capable of using Sodium nitrate as a sole source of nitrogen.

Czapek-Dox Modified Broth is a semi-synthetic medium containing Sodium nitrate as a sole source of nitrogen. It has the advantage of a chemically defined formulation, which has been modified in its original formula by substituting Magnesium sulfate and Potassium phosphate with the Magnesium glycerophosphate to prevent the precipitation of Magnesium phosphate. The medium is elaborated with inorganic sources of nitrogen and chemically defined sources of carbon only. It is useful in a variety of microbiological procedures, including soil

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microbiology, and fungi and mold resistance tests. This medium will yield moderately good growth of most saprophytic Aspergilli.

Sucrose is the sole fermentable carbohydrate providing carbon and energy. Sodium nitrate is the sole nitrogen source. Potassium salts act as a buffer system. Potassium chloride contains essential ions. Magnesium glycerophosphate and Ferrous sulfate are sources of cations.

Times and temperatures of incubation vary considerably according to the fungi. As a general rule, incubate from 1-2 weeks at room temperature (approximately 25°C). Most Penicillium grow best between 20 - 25°C; Aspergillus species grow well at around 30°C, but Aspergillus fumigatus grows well at 50°C, and C. albicans at 25°C during 24 - 48 hours.

Microbiological test

The following results were obtained in the performance of the medium from type cultures after incubation at a temperature of 30°C and observed after 1-5 days.

Microorganisms	Growth
<i>Aspergillus brasiliensis</i> ATCC 16404	Good
<i>Saccharomyces cerevisiae</i> ATCC 9763	Good
<i>Bacillus subtilis</i> ATCC 6633	Moderate
<i>Candida albicans</i> ATCC 10231	Good
<i>Staphylococcus aureus</i> ATCC 25923	Inhibited

References

- Thom y Raper. Manual of Aspergilli. Williams and Wilkins Co. Baltimore Md. 1945.
- Smith G. An Introduction to Industrial Mycology 5th Ed Arnold LR London 1960.

Ordering information

Catalog size quantities and prices may be found at <http://www.interchim.com>. Please inquire for higher quantities (availability, shipment conditions).

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