Czapek Dox Agar

Catalog : HB0231-3-500

Czapek Dox Agar is used for the identification and maintenance of fungal and bacteria capable of using inorganic nitrogen.

Approximate Formula:

Ingredients	gm/liter
Sodium Nitrate	3.0
Dipotassium Hydrogen Phosphate	1.0
Magnesium Sulfate	0.5
Potassium Chloride	0.5
Ferrous Sulfate	0.01
Sucrose	30.0
Agar	15.0

*Adjusted and/or supplemented as required to meet performance criteria.

Directions:

Suspend 50.0g of the medium in one liter of deionized or distilled water. Heat to boiling with frequent agitation to completely dissolve the powder. Dispense into tubes or flasks. Sterilize in an autoclave at 116℃ for 20 minutes. Mix well before pouring.

Principle and Interpretation:

Czapek Dox Agar is used for cultivating fungi and bacteria capable of using inorganic nitrogen. Sucrose is the sole carbon source, and sodium nitrate is the sole nitrogen source. Dipotassium phosphate is the buffering agent, and potassium chloride contains essential ions. Magnesium sulfate and ferrous sulfate are sources of cations. Agar is the solidifying agent.

Appearance:

Dehydrated medium is a free-flowing white powder. The prepared medium is a kind of white semitransparent gel.

Precautions:

This medium is for laboratory use only. Dried medium which is past shelf life, caking or color variation cannot be used.

Storage conditions and Shelf life:

Czapek Dox Agar must be stored tightly capped in the original container at 5-30°C. The dehydrated medium has a shelf life of 5 years from date of manufacturing. Prepared medium may be stored, out of direct light at 2-8°C.

Quality control:

Prepare the culture medium as per label directions. Inoculate and incubate at 25-28℃ for 5-7 days.

Microorganism	Strains Number	Inoculum(CFU)	Growth	Remarks
Aspergillus Niger	ATCC 16404	20-200	luxuriant	Black spores, white hypha
Candida Albicans	ATCC 10231	20-200	luxuriant	Cream colonies

References:

1. Czapek. 1902-1903. Beitr. Chem. Physiol. Pathol. 1:540.
2. Dox. 1910. U.S. Dept. Agr. Bur. Anim. Ind. Bull. 120:70.
3. Thom and Raper. 1945. Manual of the aspergilli. Williams & Wilkins Co., Baltimore, Md.
4. Thom and Church. 1926. The aspergilli. Williams & Wilkins Co., Baltimore, Md.
5. Eaton, Rice and Baird (ed.). 2005. Standard methods for the examination of water and wastewater, 21st ed., online. American Public Health Association, Washington, D.C.

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