

**CZAPEK DOX AGAR, MODIFIED****TM 080**

For cultivation and maintenance of fungi

Composition

Ingredients	Gms/Ltr.
Sucrose	30.00
Agar	12.00
Sodium nitrate	2.00
Potassium chloride	0.50
Magnesium glycerophosphate	0.50
Dipotassium phosphate	0.35
Ferrous sulphate	0.01

* Dehydrated powder, hygroscopic in nature, store, in a dry place in tightly- sealed containers below 25°C and protect from direct Sunlight.

Instructions for Use

Dissolve 45.36gms in 1000ml of distilled water. Gently heat to boiling with gentle swirling and dissolve the medium completely. Sterilize by autoclaving at 15psi (121°C) for 15 minutes. Mix well. Cool at 45 – 50°C and pour into sterile Petri plates. For preparing selective media, acidify the media upto pH 3.0 - 4.0 by the addition of one vial of 10% Lactic acid solution (TS 049)

Appearance: Light yellow colour, clear to slightly opalescent gel
pH (at 25°C): 6.8 ± 0.2

Principle

CZAPEK DOX AGAR, MODIFIED is used for general cultivation and maintenance of fungi. This medium can be also used for chlamyospore production by *Candida albicans*. It has the advantage of a chemically defined formulation, which has been modified in its original formula by substituting magnesium sulphate and potassium phosphate with the magnesium glycerophosphate in this formula to prevent the precipitation of magnesium phosphate. Czapek Dox Agar, Modified supports abundant growth of almost all saprophytic *Aspergilli* with characteristic mycelia and conidia formation. The medium is prepared with inorganic nitrogen sources and chemically defined carbon sources only. The medium contains Sucrose as the source of carbon. Sodium nitrate is a source of nitrogen. Dipotassium phosphate acts as a buffer in the medium. Magnesium glycerophosphate, Potassium chloride, Ferrous sulphate is added as the source of mineral in the medium. Agar is a solidifying agent. This medium has good buffering action due to the presence of different salts.

Interpretation

Cultural characteristics observed after inoculating (10³CFU/ml), on incubation at 35°C for 48 - 72 hours.

Microorganisms	ATCC	Inoculum (CFU/ml)	Growth
<i>Aspergillus niger</i>	16404	10 ³	Good
<i>Saccharomyces cerevisiae</i>	9763	10 ³	Good

PRODUCT DATA SHEET

<i>Candida albicans</i>	10231	10 ³	Good
<i>Bacillus subtilis</i>	6633	10 ³	Moderate

References

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2. K.B. Raper D.J. Fenell, The genus *Aspergillus*, The Williams a. Wilkins Comp., Baltimore, (1965).
3. Thorn and Church, The *Aspergilli*, 39 (1926).
4. Thorn and Raper, Manual of *Aspergilli*, 39 (1945).