



Peptone Yeast Dextrose Broth (Cantino)

M671

Peptone Yeast Dextrose Broth (Cantino) is used for the cultivation of aquatic fungi like *Blastocladiella* species.

Composition**

Ingredients	Gms / Litre
Peptic digest of animal tissue	1.250
Yeast extract	1.250
Dextrose	3.000
Final pH (at 25°C)	6.8±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 5.5 grams in 1000 ml distilled water. 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.

Principle And Interpretation

Peptone Yeast Dextrose Broth (Cantino) was formulated by Cantino (1) for use in the cultivation of aquatic fungi like *Blastocladiella* species (2). These aquatic fungi grow well when a sugar like dextrose is present in the medium. Cantino reported that *Blastocladiella* grow luxuriantly under visible light illumination due to increased CO₂ fixation. Peptone Yeast Dextrose Broth (Cantino) has a similar composition as Peptone Yeast Dextrose Agar (Cantino) and like the latter is also recommended for the cultivation of *Eikenella corrodens* (3). *E. corrodens* is part of the resident microflora of mucous membrane surfaces in humans. Even though *E. corrodense* is generally regarded as organism of low virulence, it is usually involved in mixed bacterial infections, often with the viridans groups Streptococci and less frequently with various members of the *Enterobacteriaceae* (4).

The medium contains peptic digest of animal tissue and yeast extract, which supply the nitrogenous nutrients, vitamin B complex, peptides and trace ingredients for the growth of aquatic fungi and *E. corrodens*. Dextrose is the energy source.

Quality Control

Appearance

Off-white to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Yellow coloured clear solution in tubes

Reaction

Reaction of 0.55% w/v aqueous solution at 25°C. pH : 6.8±0.2

pH

6.60-7.00

Cultural Response

M671: Cultural characteristics observed after an incubation at 25°-30°C for upto 8 days.

Organism	Growth
Cultural Response	
<i>Blastocladiella emersonii</i> ATCC 22665	luxuriant
<i>Candida albicans</i> ATCC 10231	luxuriant
<i>Eikenella corrodens</i> ATCC 23834	luxuriant
<i>Saccharomyces cerevisiae</i> ATCC 9763	luxuriant

Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label.

Reference

1. Cantino E. C., 1961, Mycologia, 48: 225.
2. Recheigl Jr., (Ed.), 1978, Handbook Series in Nutrition and Food, Section G., Vol. III, CRC Press Inc.
3. Atlas R. M., 2004, Handbook of Microbiological Media, Lawrence C. Parks (Ed.), 3rd Edition, CRC Press.
4. Balows A., Truper H. G., Dworkin M., Harder W., Schleifer K. H., (Eds.), 1992, The Prokaryotes, 2nd Edi, Vol. III, Springer-Verlag.

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