Glucose Yeast Peptone Agar

M757

Glucose Yeast Peptone Agar is recommended for isolation of yeasts from soil specimens.

Composition**

Ingredients	Gms / Litre
Peptic digest of animal tissue	10.000
Yeast extract	5.000
Dextrose	20.000
Agar	15.000
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 50 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and pour into sterile Petri plates.

Principle And Interpretation

Yeasts are unicellular organisms that reproduce by budding. Their microscopic and morphological features usually appear similar for different genera and are not particularly helpful in their isolation in pure culture. Glucose Yeast Peptone Agar is formulated as described by Subba Rao (1) with a slight modification in agar concentration for isolating yeasts from soil specimens. This is a highly nutritious medium, which may be used not only for isolating yeasts but also for isolating some fastidious microorganisms. Yeasts grow well on a minimal medium containing only dextrose and salts. The addition of protein and yeast cell extract hydrolysates allows faster growth so that during exponential or log-phase growth, doubling time of 90 minutes is observed (2).

Peptic digest of animal tissue provides nitrogenous nutrients especially the amino acids and peptides and yeast extract supply vitamin B complex. Dextrose is the readily available source of energy and a good carbohydrate source for yeasts.

Quality Control

Appearance
Cream to yellow homogeneous free flowing powder

Gelling
Firm,comparable with 1.5% Agar gel

Colour and Clarity of prepared medium
Light to medium amber coloured, clear to slightly opalescent gel forms in Petri plates

Reaction
Reaction of 5.0% w/v aqueous solution at 25°C. pH : 7.0±0.2

pH
6.80-7.20

Cultural Response
Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours .

Cultural Response

Organism	Inoculum (CFU)	Growth	Recovery
Cultural Response			
Saccharomyces cerevisiae ATCC 9763	50-100	luxuriant	>=70%

Storage and Shelf Life

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

Reference

1. Subba Rao N. S., 1977, Soil Microorganisms and Plant Growth, Oxford and IBH Publishing Co., New Delhi.
2. Ausubel, Brent, Kingston, Moore, Seidman, Smith and Struhl, 1994, Current Protocols in Molecular Biology, Current Protocols, Brooklyn, N.Y.

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