YPD Broth (YEPD Broth),Granulated®

GM1363

Intended Use:

Recommended for the growth of *Saccharomyces cerevisiae* for molecular biology.

Composition**

Ingredients	g / L
Peptone	20.000
Yeast extract	10.000
Dextrose (Glucose)	20.000
Final pH (at 25°C)	6.5±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 50.0 grams in 1000 ml purified/distilled water.Heat if necessary to dissolve the medium completely.Dispense into tubes or flasks as desired.Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle And Interpretation

YPD Broth (YEPD Broth) is recommended by Sherman (1) for the growth of *Saccharomyces cerevisiae* for molecular biology purposes. This medium supports the growth of most heterotrophic microorganisms but due to their simple composition, they have been adopted as the basal media for the routine cultivation of yeasts. General methods in yeast genetics specify using Yeast Extract Peptone- Dextrose (YPD) medium for cultivating *S. cerevisiae* and other yeasts (2). 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, the cells divide every 90 minutes (2). The medium composition aids in growth of *Saccharomyces*. Peptone provides nitrogenous nutrients. Yeast extract provides nitrogenous nutrients as well as Vitamin B Complex. Dextrose provides the carbohydrate and energy source to support growth of *S. cerevisiae.*

Type of specimen

Isolated strain of *Saccharomyces cerevisiae*

Specimen Collection and Handling:

After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. This medium is general purpose medium and may not support the growth of fastidious organisms.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance

Cream to yellow granulated free flowing powder.

Colour and Clarity of prepared medium

Light amber coloured clear solution in tubes.

Reaction

Reaction of 5.0% w/v aqueous solution at 25°C. pH : 6.5±0.2

pH

6.30-6.70

Cultural Response

Cultural characteristics observed after an incubation at 25-30°C for 48-72 hours.

Organism	Inoculum (CFU)	Growth
#*Aspergillus brasiliensis* ATCC 16404 (00053*)	50-100	good-luxuriant
Candida albicans ATCC 10231 (00054*)	50-100	good-luxuriant
Saccharomyces cerevisiae ATCC 9763 (00058*)	50-100	good-luxuriant

Key: *Corresponding WDCM numbers. #Formerly known as *Aspergillus niger*

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 15-30°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with sample must be decontaminated and disposed of in accordance with current laboratory techniques (3,4).

Reference

1. Sherman F., Meths. Enzymol. 194, 3 (1991).
2. Ausubel F. M., Brent R., Kingston R. E., Moore D. D., Seidman J. G., Smith J. A. and Struhl K., 1994, Current protocols in molecular biology, Current Protocols, Brooklyn, N.Y.
3. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
4. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

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