Yeast Malt Broth (YM Broth)

M425

Intended Use:

For the isolation and cultivation of yeasts, moulds and other aciduric microorganisms

Composition**

Ingredients	g / L
Peptone	5.000
Yeast extract	3.000
Malt extract	3.000
Dextrose (Glucose)	10.000
Final pH (at 25°C)	6.2±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 10.50 grams in 490 ml purified/distilled water. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. For preparing selective media acidify the medium upto pH 3.0 to 4.0 by aseptically adding 1 vial of 10% Lactic acid Solution (FD095) or add antibiotics. **DO NOT HEAT** the medium after addition of acid or antibiotics. Mix well and dispense into tubes or flasks as desired.

Principle And Interpretation

Yeast Malt Broth is formulated as per Wickerham (1,2) for isolation and cultivation of yeasts, moulds and other aciduric microorganisms. Fungistatic materials such as sodium propionate and diphenyl are added to YM Broth to eliminate moulds and thus permits enumeration of yeasts from mixed population. Wickerham suggested the use of Yeast Malt Broth as an enrichment medium for yeasts by adding a layer of sterile paraffin oil (about 1 cm) on the surface of inoculated broth. After the growth occurs it should be streaked on YM Agar (M424) to obtain isolated colonies of fermentative species. To isolate fermentative as well as oxidative strains, acidified YM Broth is placed on a rotary shaker for 1 or 2 days which favours development of yeast cells while the sporulation of moulds is prevented and yeasts can be isolated by streaking on YM Agar (M424). Peptone serves as a source of carbon, nitrogen and essential nutrients. Yeast extract supplies vitamin B complex nutrients and other growth factors. Malt extract serves as an additional source of carbon. Dextrose is the carbohydrate and energy source. To increase the selectivity, the media can be acidified by the addition of sterile 10% HCl, tartaric acid or 10% citric acid. Alternatively antibiotics (penicillin 20U/ml or streptomycin to a final concentration of 40mcg/ml) can be added. Acidified medium should not be reheated.

Type of specimen

Clinical samples - Skin scrapings; Food and dairy samples

Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (3,4). For food and dairy samples, follow appropriate techniques for sample collection and processing as per guidelines (5,6,7). After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

In Vitro diagnostic use. For professional use only. 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 clinical specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. Further serological and biochemical testing must be carried out on pure colony for complete identification.
2. Acidified medium should not be reheated.

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 beige homogeneous free flowing powder

Colour and Clarity of prepared medium

Light amber coloured clear solution in tubes.

pH

6.00-6.40

Cultural Response

Cultural characteristics observed after an incubation at 25-30°C for 40-72 hours.

Organism	Growth at pH 3.4	Growth at pH 6.2
Aspergillus brasiliensis ATCC 16404 (00053*)	good-luxuriant	good-luxuriant
Candida albicans ATCC 10231 (00054*)	good-luxuriant	good-luxuriant
Escherichia coli ATCC 25922 (00013*)	inhibited	good-luxuriant
Lactobacillus leichmannii ATCC 4797	poor	good-luxuriant
Saccharomyces cerevisiae ATCC 9763 (00058*)	good-luxuriant	good-luxuriant
Lactobacillus casei ATCC 9595	poor	good-luxuriant

Key: (*) Corresponding WDCM numbers

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle inorder 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 clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (3,4).

Reference

1. Wickerham, 1939, J. Tropical Med. Hyg., 42:176.
2. Wickerham, 1951, U.S. Dept. Agric. Tech. Bull. No. 1029.
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.
5. American Public Health Association, Standard Methods for the Examination of Dairy Products, 1978, 14th Ed., Washington D.C.
6. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, American Public Health Association, Washington, D.C.
7. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, American Public Health Association, Washington, D.C.

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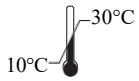
IVD ***In vitro*** **diagnostic medical device**



Storage temperature

EC REP

CEpartner4U, Esdoornlaan 13,
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CE Marking

Do not use if package is damaged

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