Instructions for Use

REF - BM1490 **Malt Extract Broth**

Bottled Media

1. Intended Use

For *in vitro* diagnostic use. BM1490 Malt Extract Broth is used for the cultivation of yeasts and moulds.

2. Composition*

Ingredient	g/L
Malt extract	17.0
Peptone	3.0

*Adjusted/supplemented as needed to meet performance requirements

3. Summary and Explanation

Thom and Church [1], following the formula of Reddish [2], used malt extract as a base from which they prepared Malt Extract Broth. This medium is commonly used as part of sterility testing protocols, though it is mostly used for comparative morphological studies, maintenance, isolation, and identification of fungi.

4. Principle

The high carbohydrate content of the medium ensures rapid growth of yeasts and moulds. Malt extract and peptone provide the carbon, protein and nutrient sources required by the organisms. The acidic nature of this medium allows for optimal growth of moulds and yeasts while restricting bacterial growth.

5. Physical Characteristics

	Appearance and Colour	pH
Medium	Pale brown liquid	5.4 ± 0.2

6. Materials Provided

BM1490 Malt Extract Broth can be provided in the formats detailed below. Each bottle is ink-jet printed or labelled with (abbreviated) product name, product code, lot number and expiry date.

Product Code	Product Format
BM1490-M003-5	50 x 5ml in Thin Wall Bijous
BM1490-R125-100	10 x 100ml in 125ml Sirop Bottles

7. Materials Needed but not Provided

Standard microbiological laboratory materials e.g., sterile loops or swabs, collection containers, incubators, media for isolation and quality control organisms.

8. Specimens

BM1490 Malt Extract Broth is suitable for the testing of the following specimens:

- Pure cultures previously isolated from clinical specimens
- Food and Environmental: products for human consumption, animal feed and environmental samples

Sampling and transport equipment must be used in accordance with the end user's suppliers' recommendations. Refer to appropriate standard method or local guidance on sample collection and subsequent processing.

9. Test Procedures and Interpretation of results

Allow the media to come to room temperature.

Clinical Specimens:

For the enrichment of isolated pure colonies grown on another isolation media, using a sterile loop, inoculate 1 colony into BM1490 Malt Extract Broth and incubate at 25 ± 1°C aerobically for 24-48 hours.

Food/Environmental Specimens:

Solid samples: Prepare a homogenised suspension using a ratio of 1:9 of sample to diluent such as Maximum Recovery Diluent (E&O BM0760).

Homogenised/liquid specimens: BM1490 Malt Extract Broth should be inoculated with 1ml of the specimen or 1 isolated colony using an inoculation loop and incubated at 25 ± 1˚C aerobically for 24-48 hours.

If used for enrichment, after initial incubation, subculture 1ml onto a suitable agar (such as Sabouraud Dextrose Agar (E&O PP0240)) and incubate plates at 25 ± 1˚C aerobically for 24-48 hours.

After incubation, examine broths for turbidity; examine subcultures on agar for colonies (typical colony appearance outlined in Quality Control table below). Perform further biochemical, serological, or mass spectroscopy testing to confirm identity of presumptive positive isolates from subcultures. Refer to relevant local guidelines.

10. Quality Control

Organism	Incubation	Result (Specificity)
C. albicans (NCPF 3179) *S. cerevisiae* (NCPF 3178)	25 ± 1°C aerobically for 24-48 hours 25 ± 1°C aerobically for 24-48 hours Subculture 1µl onto E&O PP0280 Sabouraud Dextrose Agar and incubate plates at 25 ± 1°C aerobically for 24-48 hours.	Broth: Good turbidity. Subplate: White colonies Broth: Good turbidity. Subplate: White colonies

It is the responsibility of the user to perform Quality Control testing taking into consideration the intended use of the medium and in agreement with any local relevant guidelines (e.g., frequency, strains used, atmosphere, incubation temperature).

11. Performance

To fully verify BM1490 Malt Extract Broth performance, samples were tested to assess turbidity, colony morphology and recovery level when incubated at 25 ± 1°C aerobically for 24-48 hours, before being subcultured on E&O PP0280 Sabouraud Dextrose Agar and incubated at 25 ± 1°C aerobically for 24-48 hours. All samples grew and showed good recovery and the correct morphology of the required test organisms: *Candida albicans* (NCPF 3179) and *Saccharomyces cerevisiae* (NCPF 3178). Therefore, it can be concluded that BM1490 Malt Extract Broth, meets performance criteria when used according to the instructions outlined above. Trend analysis data available upon request.

12. Limitations of the Media

- Additional biochemical, serological or molecular tests should be performed on sub-culture isolates to confirm identity.
- Due to natural variation, some strains may grow poorly on this medium.

13. Precautions and Warnings

This product is considered non-hazardous under CLP regulations. Wear such PPE as recommended by laboratory COSHH assessment. During and after use, always handle all materials in a manner conforming to Good Laboratory Practices and consider that material under test should be regarded as a potential biohazard if mishandled.

Refer to E&O BM1490 Bottled Media Material Safety Data Sheet.

14. Storage conditions and Shelf life

Store BM1490 in the original bottle with the lid tightly closed at between 2 and 8°C. Kept under these conditions it may be used up to date of expiry shown on product label.

Dispose of in accordance with local and national authority requirements. Do not use media if it is contaminated, discoloured or out of date. Additionally, do not use medium if it has been stored inappropriately or the packaging has been damaged.

15. References

1. Reddish, G. F. (1919). A substitute for beer wort as a bacteriological culture medium. J Bacteriol, 3, pp.6-7.
2. Thom, C. and Church, M. (1926) The Aspergilli. Baltimore: Williams & Wilkins.

Version History*

001 24/06/24 - New Document Created

*Note: minor typographical, grammatical, and formatting changes are not included in the revision history.

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TABLE OF APPLICABLE SYMBOLS

REF o REF Catalogue number	LOT Batch code	IVD *In vitro* Diagnostic Medical Device	Manufacturer	Use by
Temperature limitation	Contents sufficient for <n> tests	Consult Instructions for Use	Keep away from direct light	Store in a dry place