



## Malt Extract Broth, Modified as per Thom and Church

M1128

### Intended Use:

Recommended for cultivation and enumeration of yeasts and moulds and to check sterility to detect presence of these organisms.

### Composition\*\*

Ingredients	Gms / Litre
Malt extract	6.000
Maltose	1.800
Dextrose (Glucose)	6.000
Yeast extract	1.200
Final pH ( at 25°C)	4.7±0.2

\*\*Formula adjusted, standardized to suit performance parameters

### Directions

Suspend 15 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. AVOID OVERHEATING.

### Principle And Interpretation

Malt Extract medium is recommended for the isolation, detection and enumeration of yeasts and moulds. Reddish (1) described a medium prepared from malt extract which was an acceptable substitute for wort. Following the formula of Reddish, Thom and Church (2) used Malt extract as a base from which they prepared the complete media. Malt extract and yeast extract provide essential growth nutrients for the growth of fungi. Maltose and dextrose are the suitable carbohydrates for the growth of fungi. The low pH inhibits bacterial growth (3). Inoculate the specimen directly into tubes of the medium and incubate the tubes. After sufficient incubation observe for the presence of turbidity and subculture on selective and non-selective media for isolation of individual species. Consult appropriate references for information regarding the processing and inoculation of specimens (4).

## Quality Control

### Appearance

Cream to yellow homogeneous free flowing powder

### Colour and Clarity of prepared medium

Yellow coloured clear to slightly opalescent solution in tubes

### Reaction

Reaction of 1.5% w/v aqueous solution at 25°C. pH : 4.7±0.2

### pH

4.50-4.90

### Cultural Response

Cultural characteristics observed after an incubation at 25 - 30°C for 40 - 48 hours.

Organism	Inoculum (CFU)	Growth
# <i>Aspergillus brasiliensis</i> ATCC 16404	50-100	good - luxuriant
<i>Candida albicans</i> ATCC 10231	50-100	good - luxuriant
<i>Saccharomyces cerevisiae</i> ATCC 9763	50-100	good - luxuriant

Key: #Formerly known as *Aspergillus niger*

## Reference

1. Reddish, 1919, Abst. Bact., 3:6.
2. Thom and Church, 1926, The Aspergilli.
3. Lennett, Balows, Hausler and Shadomy (Eds.), 1985, Manual of Clinical Microbiology, 4th ed., ASM, Washington, D.C.
4. Ajello L., Georg L. K., Kaplan W. and Kaufman L., 1963, CDC Laboratory Manual for Medical Mycology, Washington, D. C.

Revision : 1 / 2011

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